

YOLO COUNTY

CEMEX MINING AND RECLAMATION PLAN PERMIT AMENDMENT

(ZONE FILE #2018-0015)

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT



Lead Agency:
Department of Community Services
Planning Division
292 West Beamer Street
Woodland, CA 95695

Prepared by:
Baseline Environmental Consulting
388 17th Street, Suite 230
Oakland, CA 94612



MARCH 2024



Elisa Sabatini
Manager of Natural Resources

Department of Community Services
COUNTY OF YOLO

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**NOTICE OF AVAILABILITY OF A DRAFT SUBSEQUENT DRAFT
ENVIRONMENTAL IMPACT REPORT (DRAFT SEIR) FOR THE CEMEX MINING
AND RECLAMATION PLAN PERMIT AMENDMENT PROJECT AND NOTICE OF
PUBLIC MEETING ON DRAFT SEIR**

DATE: March 21, 2024

TO: Interested Agencies and Individuals

LEAD AGENCY: Yolo County Department of Community Services

APPLICANT: CEMEX Construction Materials Pacific, LLC

CEQA STATE CLEARINGHOUSE NUMBER: 2021020487

PROJECT NAME: CEMEX Mining and Reclamation Plan Permit Amendment (ZF #2018-0015)

PROJECT LOCATION: The project site is located at the existing CEMEX sand and gravel mining operation, located primarily east of Interstate 505, along the south bank of Cache Creek, near the unincorporated community of Madison. The operation is located at 30288 State Route 16, Woodland, California 95653, in the central portion of unincorporated Yolo County, approximately seven miles west of the city of Woodland. The site consists of 12 adjacent assessor parcel numbers: 025-450-001, 049-060-004, 049-060-007, 049-070-004, 049-070-005, 049-070-006, 049-070-009, 049-070-010, 049-070-011, 049-070-019, 049-070-020, and 049-070-021.

PROJECT BACKGROUND: The existing CEMEX off-channel mining operation is operated subject to a 1996 permit approval (as subsequently modified) (Mining Permit No. ZF #95-093 and Development Agreement No. 96-287) and has been operating continuously in its location since the 1970s. The existing site totals 1,902 acres, with mining limited to 586 total acres and reclamation required for 716 acres (including the 30-acre plant site). The existing approvals allow maximum annual mining of 1,445,783 tons (1,200,000 tons sold), and maximum total mining of 32,170,000 tons (26,700,000 tons sold). Mining is allowed to occur in seven phases moving generally from west to east, over a 30-year period ending in 2027, to a maximum depth of 70 feet.

PROJECT DESCRIPTION: On February 28, 2018, CEMEX submitted an application to modify the approved mining permit and reclamation plan for their existing off-channel mining operation. The subject application was subsequently revised several times, the most recent revision occurring on November 23, 2022.

The application contains the following requests: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans versus on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request.

The project requires the following County approvals: 1) certification of a Subsequent EIR; 2) amendment to Mining Permit No. ZF #95-093 to: a) allow mining to continue on ±383 acres (Phases 4 through 6) for an additional 20 years through the year 2047, b) approve revised Mining Plan sheets reflecting modified mining phase boundaries, elimination of Phase 7, increased acreage that can be simultaneously disturbed, and increased acreage that can be used for processing, c) approve increased the total production limit from 32,170,000 tons mined (26,700,000 tons sold) over the term of the permit to 53,536,426 tons mined (46,636,119 tons sold), and d) modify various conditions of approval to reflect the final approved changes; 3) amendment to the approved Reclamation Plan to: a) modify reclamation area to reflect ±816 total acres reclaimed to ±419 acres of agriculture (approximately 80% row crops and 20% tree crops), ±204 acres of permanent lakes, ±174 acres of riparian and other habitat, and ±19 acres of slopes and roads, b) allow a longer period for reclamation by phase and overall, with all reclamation completed by 2052, and c) approve revised Reclamation Plan sheets, Reclamation Plan narrative, and Habitat Restoration Plan; and 4) amendment to Development Agreement No. 96-287 to reflect the revised mining and reclamation approvals and net gains.

ENVIRONMENTAL REVIEW FINDINGS: The County and its consultant, Baseline Environmental Consulting, have prepared a Draft SEIR pursuant to CEQA Section 15162. The Draft SEIR identifies potentially significant impacts in the following issue categories: agricultural resources; greenhouse gases; biological resources; cultural resources and tribal cultural resources; paleontological resources; hydrology and water quality; and transportation and circulation.

CORTESE LIST: In compliance with CEQA Guidelines Section 15087(c)(6), the project site (including the plant site) is not identified in the California Department of Toxic Substances Control EnviroStor database as a known hazardous waste or disposal site on lists specified under Government Code Section 65962.5 (the "Cortese list").

DOCUMENT AVAILABILITY: The Draft SEIR and all documents incorporated by reference are now available for public review at the County's Natural Resources Division's website: www.yolonaturalresources.org. Printed copies of the document are also available for viewing at the public counter of the Yolo County Planning Division (292 West Beamer Street, Woodland, CA 95695) during regular business hours. Additionally, electronic copies of the document were provided to the Woodland Public Library (250 First Street, Woodland, CA 95695) and the Esparto Regional Library (17065 Yolo Avenue, Esparto, CA 95627). Interested individuals may request electronic copies of the document (via flash drive) free of charge, or printed copies for a fee to cover the cost of publication. Please contact Casey Liebler (using the contact information provided below) for more information.

PUBLIC COMMENT PERIOD: The County invites comments on the Draft SEIR during a 47-day period that begins on March 21, 2024, and ends on May 6, 2024, at 4:00 PM. Comments may be submitted via

email to Casey Liebler, Natural Resources Planner, at Casey.Liebler@yolocounty.org, or by mail or hand delivery to the following address:

Yolo County Department of Community Services
Attn: Casey Liebler
(ZF #2018-0015: Draft SEIR Comments)
292 West Beamer Street
Woodland, CA 95695

Pursuant to Section 15088(a) of the CEQA Guidelines, late comments will be considered only at the County's discretion.

A Response to Comments (Final SEIR) document will be prepared following public review and comment period. The County will consider this information when deliberating the project. Following certification of the Final SEIR, the County may take action to adopt the proposed project.

PUBLIC MEETING: The Yolo County Planning Commission will hold a public meeting to receive comments on the Draft SEIR on **Thursday, April 11, 2024, at 9:00 AM**. The meeting will be held in the Board of Supervisors Chambers in the Erwin Meier Administration Building (625 Court Street, Room 206, Woodland, CA 95695).

If you require special accommodations to participate in the public meeting, please contact the Yolo County Department of Community Services at (530) 666-8078. Please make your request as early as possible and at least one-full business day before the start of the meeting.

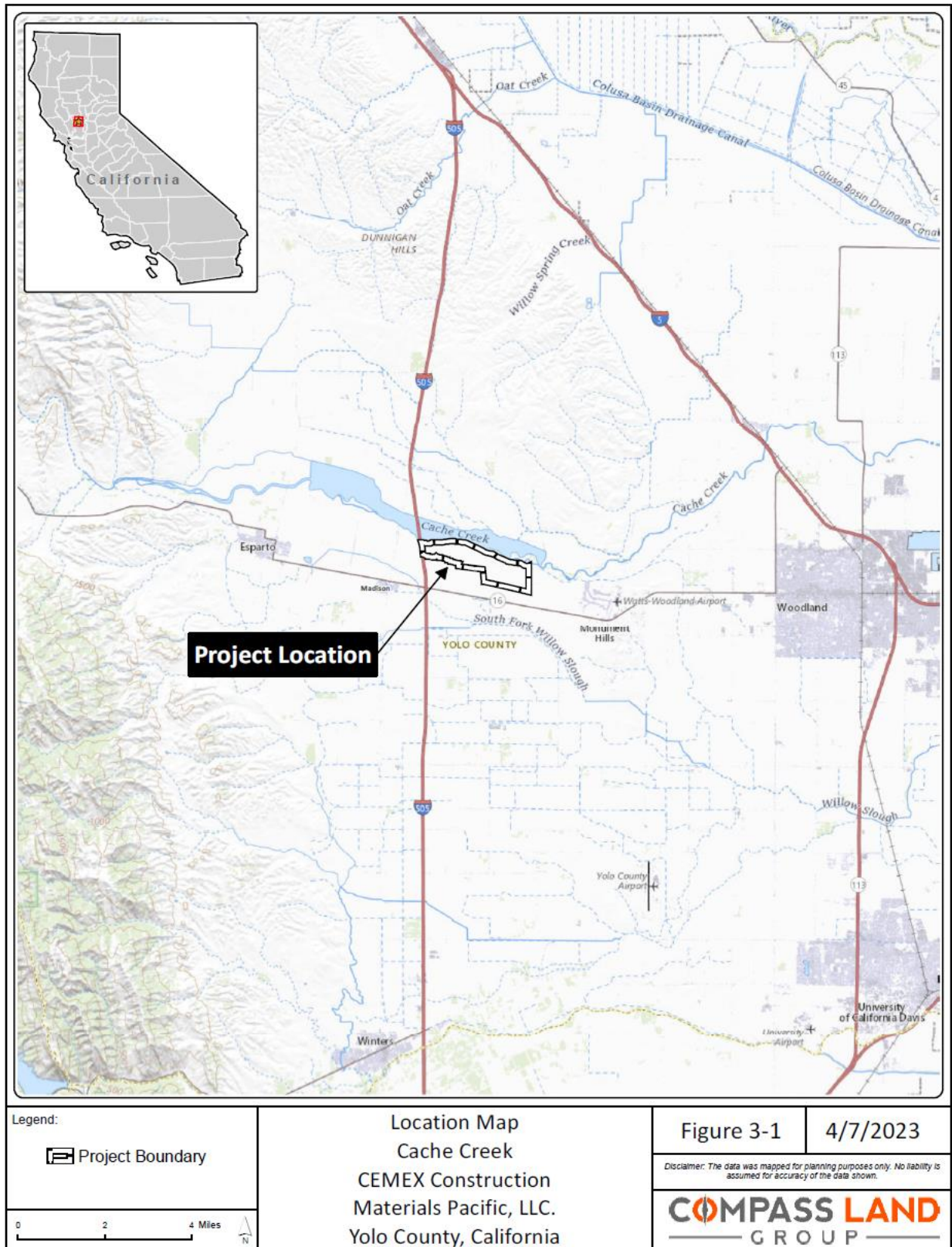
Comments received at this meeting will be summarized by staff for inclusion in the Final SEIR. Those who wish to have their verbatim comments incorporated in the Final SEIR are strongly recommended to submit their comments in writing.

Pursuant to California Government Code Section 65009(b)(2) and other provisions of law, any lawsuit challenging the approval of a project described in this notice shall be limited to only those issues raised at the public meeting or described in written correspondence delivered for consideration before the meeting is closed.

For more information about this project, contact Casey Liebler, Natural Resources Planner, by email at Casey.Liebler@yolocounty.org or by phone at (530) 666-8236.

Attachment:

Draft SEIR, Figure 3-1, Location Map



YOLO COUNTY

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PERMIT AMENDMENT
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STATE CLEARINGHOUSE NO. 2021020487

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MARCH 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AG	Agriculture zone or land use designation
APEFZ	Alquist-Priolo Earthquake Fault Zone
AQAP	Air Quality Attainment Plan
BTP	Bicycle Transportation Plan
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAP	Cache Creek Area Plan
CCIP	Yolo County Cache Creek Improvement Program
CCR	California Code of Regulations
CCRMP	Yolo County Cache Creek Resources Management Plan
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
CFT	Channel Form Template
CGS	California Geological Survey

CH ₄	methane
CIP	Capital Improvement Plan
CNCA	California Noise Control Act
CNDDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
Corps	U.S. Army Corps of Engineers
CSMP	Corridor System Management Plans
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
DA	Development Agreement
dB	decibel
dBA	A-weighted decibels
DOC	State Department of Conservation
DPM	diesel particulate matter
DWR	Department of Water Resources
EIR	Environmental Impact Report
EMFAC	California Emission Factors
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
Fee Ordinance	Yolo County Code Title 10, Chapter 11, Gravel Mining Fee Ordinance
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map

FIS	Flood Insurance Study
FMMP	California Department of Conservation Farmland Mapping and Monitoring Program
Flood Protection Ordinance	Yolo County Code Title 8, Chapter 4, Flood Protection Ordinance
Forest Land	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.
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plans
GWP	global warming potential
HSC	State Health and Safety Code
HCP/NCCP	Habitat Conservation Plan/Natural Communities Conservation Plan
HFC	hydrofluorocarbon
Hz	Hertz unit of frequency
In-Channel Ordinance	Yolo County Title 10, Chapter 3, Cache Creek In-Channel Maintenance Mining Ordinance
in/sec	inches per second
IPCC	International Panel on Climate Change
IRP	Integrated Resources Plan
LCFS	low-carbon fuel standard
Ldn	day-night level
Leq	one-hour average noise level equivalent
LOS	level of service
LTS	less-than-significant impact
mph	miles per hour

MBTA	Migratory Bird Treaty Act
MPO	metropolitan planning organization
MRZ	Mineral Resource Zone
MT	metric tons
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NECPA	National Energy Conservation Policy Act
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NAHC	Native American Heritage Commission
NOAA	National Oceanic Atmospheric Administration
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NWI	National Wetland Inventory
NWIC	Northwest Information Center
OCMP	Yolo County Off-Channel Mining Plan
Mining Ordinance	Yolo County Code Title 10, Chapter 4, Off-Channel Surface Mining Ordinance
OES	Yolo County Office of Emergency Services
OHWM	ordinary high-water mark
PCC	Portland cement concrete

PFC	perfluorocarbon
PM	particulate matter
PM10	particulate matter (diameter \leq 10 microns)
PM2.5	fine particulate matter (diameter \leq 2.5 microns)
PPV	peak particle velocity
Reclamation Ordinance	Yolo County Code Title 10, Chapter 5, Surface Mining Reclamation Ordinance
RMS	root mean square
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
S	significant impact
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCS	sustainable communities strategy
SEIR	Subsequent Environmental Impact Report
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SGO	Sand and Gravel Overlay zone
SGRO	Sand and Gravel Reserve Overlay zone
SIP	State Implementation Plan
SLAMS	State and Local Air Monitoring Stations
SMARA	Surface Mining and Reclamation Act
SO ₂	sulfur dioxide
SSC	Species of Special Concern
Streamway Influence Boundary	Defined as the area (unspecified acreage) where the OCMP and CCRMP overlap (where the creek affects off-channel land uses) based on the historical extent (historical floodplain or historical meander) of the channel.

SU	significant and unavoidable impact
SVAB	Sacramento Valley Air Basin
TAC	Technical Advisory Committee
TMDL	total maximum daily load
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
Timberland	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 (per the Public Resources Code section 4526).
TIS	transportation impact study
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
VdB	vibration decibels
VELB	valley elderberry longhorn beetle
VMT	vehicle miles traveled
WRA	Yolo County Water Resources Association
YCFCWCD	Yolo County Flood Control and Water Conservation District
YCTD	Yolo County Transportation District
YSAQMD	Yolo-Solano Air Quality Management District

1 INTRODUCTION

1.1 INTRODUCTION

CEMEX Construction Materials Pacific, LLC (CEMEX) has submitted a request to the County of Yolo (Yolo County or County) to modify an approved mining permit and reclamation plan for the existing CEMEX sand and gravel mining operation, located primarily east of Interstate 505 (I-505), along the south bank of Cache Creek, near the unincorporated community of Madison. This project is known as the CEMEX Mining and Reclamation Plan Permit Amendment Project (Zone File #2018-0015) (SCH #2021020487). The existing off-channel mining operation is operated subject to a 1996 permit approval (as subsequently modified) (Mining Permit No. ZF #95-093 and Development Agreement No. 96-287), and has been operating continuously at that location since the 1970s. The operation is identified by the State Department of Conservation, Division of Mining and Reclamation (DMR) as Mine Identification Number 91-57-0008. The application for the permit amendment was received February 28, 2018,¹ and subsequently revised several times. The most recent revision to the project application is dated November 23, 2022. The 1996 permit approval was evaluated in the Solano Long-Term Off-Channel Mining Permit Application Final Environmental Impact Report (SCH #96012034)² (1996 EIR) certified by the Board of Supervisors on November 25, 1996.

The existing site totals 1,902 acres, with mining limited to 586 total acres and reclamation required for 716 acres (including the 30-acre plant site). The existing approvals allow maximum annual mining³ of 1,445,783 tons (1,200,000 tons sold), and maximum total mining of 32,170,000 tons (26,700,000 tons sold). Mining is allowed to occur in seven phases moving generally from west to east, over a 30-year period ending in 2027, to a maximum depth of 70 feet.

The proposal would amend the approved mining and reclamation permits to: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans verses on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request. A complete description of the project is contained in Chapter 3, Project Description.

The potential for environmental impacts associated with proposed changes to the mining permit, reclamation plan, and Development Agreement are evaluated in this Subsequent Environmental

¹ Compass Land Group. 2018. Application for Extension or Modification of an Approved Project for CEMEX Cache Creek Mining Permit and Reclamation Plan Amendment Project. February.

² Yolo County. 1996. Solano Long-Term Off-Channel Mining Permit Application Final Environmental Impact Report. November 25.

³ See discussion under "Increase in Total Production Limit" under Section 3.6, Components of the Project, in Chapter 3.0, Project Description.

Impact Report (EIR) prepared pursuant to Section 15162 of the CEQA Guidelines (Subsequent EIR or SEIR). Approval of these revisions is a discretionary action by Yolo County, which will serve as the Lead Agency under CEQA, and is responsible for the preparation of this Draft SEIR.

The existing operation is located primarily east of I-505 and within the boundaries of the Cache Creek Area Plan (CCAP). The CCAP was adopted by the Board of Supervisors in 1996, substantively amended and updated in 2019 (CCAP Update), and evaluated in full most recently in the 2019 CCAP Update FEIR.⁴ The CCAP incorporates the Off-Channel Mining Plan for Lower Cache Creek (OCMP)⁵ and the Cache Creek Resources Management Plan (CCRMP).⁶ The CCRMP and OCMP are adopted components of the County General Plan and are implemented primarily through the County's Mining Ordinance, Reclamation Ordinance, and In-Channel Ordinance. The project must comply with the requirements of CCAP program, including all relevant components of adopted plans, ordinances, and regulations. As allowed under Sections 15152 and 15168 of the CEQA Guidelines, this Draft SEIR tiers from the CCAP Update FEIR (SCH # 2017052069), particularly as related to impacts of the CCAP as a program, some setting information, programmatic growth inducement, programmatic cumulative impacts, and programmatic alternatives. The CCAP EIR can be reviewed at the following website:

<https://www.yolocounty.org/government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-ccap/cache-creek-area-plan-20-year-update-eir>

The CEMEX Mining and Reclamation Plan Permit Amendment Project Draft SEIR has been prepared in accordance with the California Environmental Quality Act of 1970, Pub. Res. Code § 21000 et seq., as amended (CEQA) and the Guidelines for Implementation of the California Environmental Quality Act, Cal. Code Regs. Title 14, § 15000 et seq. (CEQA Guidelines). As required by Section 15121 of the CEQA Guidelines, the purpose of an EIR is to: (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project; (b) identify possible ways to minimize the significant adverse environmental effects; and (c) describe reasonable project alternatives. It is not the purpose of an EIR to provide a recommendation of approval or denial of a project; rather the purpose is to disclose information related to environmental impacts. The County is required to consider the information in the SEIR in deliberating the merits of the project.

1.2 PROJECT SUMMARY

This section provides an overview of the project location and components. For additional project description details, please refer to Chapter 3, Project Description, of this Draft SEIR.

⁴ Yolo County. 2019. Cache Creek Area Plan Update Final EIR. Certified December 17, 2019.

⁵ Yolo County. 2019. Updated Final Off-Channel Mining Plan (OCMP) for Lower Cache Creek. Adopted July 30, 1996, and Updated December 17, 2019.

⁶ Yolo County. 2019. Updated Final Cache Creek Resource Management Plan (CCRMP). Adopted July 30, 1996, and Updated December 17, 2019.

Project Location and Setting

The existing project site consists of approximately 1,902 acres, with mining limited to 586 acres and reclamation currently required for 716 acres (including a 30-acre plant site). The site is located in the central portion of unincorporated Yolo County, primarily east of I-505, along the south bank of Cache Creek, near the town of Madison, and approximately seven miles west of the City of Woodland. The excavation area, processing plant, and office are currently accessed from an existing private driveway entrance on the north side of State Route 16 (SR-16). The site is predominantly located east of I-505, but includes one parcel (Mining Phase 7) immediately west of I-505. The address for the site is 30288 SR-16, Woodland, California 95653. The site consists of 12 adjacent Assessor Parcel Numbers (APN) which are: 025-450-001, 049-060-004, 049-060-007, 049-070-004, 049-070-005, 049-070-006, 049-070-009, 049-070-010, 049-070-011, 049-070-019, 049-070-020, and 049-070-021.

The General Plan land use designations on the project site are Agriculture (AG) and Open Space (OS). The General Plan land use designation of Agriculture (AG) supports surface mining (see General Plan Table LU-4 and associated policies). The in-channel portions of the site where Cache Creek crosses the property are designated in the General Plan as Open Space (OS) and fall under the management of the CCRMP (General Plan, p. CO-13). The site is also within a General Plan Mineral Resource Overlay (MRO) district that identifies the areas within the CCAP area that have been identified by the state (State designated Mineral Resource Zone 2 or MRZ-2 areas) as containing known significant deposits of aggregate, and existing mining operations. Per County Code, all areas approved for mining must have this designation. The County zoning designations on the project site are Agricultural-Intensive (A-N) and Public Open Space (POS). The zoning designation of Agricultural-Intensive (A-N) allows surface mining when combined with the Sand and Gravel Overlay (S-G), and subject to approval of a Major Use Permit. All project parcels have the S-G overlay.

The project site is located in the southern portion of a relatively flat and wide alluvial valley known as Hungry Hollow. The local topography consists of a broad alluvial plain formed at the base of the eastern flank of the California Coast Range. The alluvial valley is oriented northwest to southeast. Cache Creek transects the valley, flowing generally from west to east.

The site consists primarily of mining and agricultural land in various stages of mining and reclamation. Agricultural production on and around the site are mainly row crops. Annual grassland with sections of ruderal vegetation is found around the perimeter of the agricultural and actively mined areas as well as in much of the required minimum 200-foot buffer from the bank of Cache Creek. Remnant sections of riparian habitat (riparian depressions) also occur in depressions within the 200-foot Cache Creek buffer. There is a narrow band of riparian vegetation on the southern bank of Cache Creek (north side of the project site) which serves as a natural vegetative buffer between mining areas and the creek. The creek is approximately 35 feet lower in elevation at this point. This area is undisturbed and does not fall within the mining or reclamation plan boundaries.

The predominant land uses in the vicinity of the project include aggregate mining and processing, agriculture, and open space associated with Cache Creek. To the north, the site is bound by

Cache Creek and agricultural lands further north. To the east, the site is bound by agriculture, including various uses allowed within that zone, such as farm dwellings and ancillary commercial-type uses. To the south, the site is bound by SR-16, agriculture, and occasional farm dwellings. To the west, the site is bound by generally by I-505. The exception is Phase 7 which is located west of I-505 and is bound to the west by agriculture and rural residences.

Project Description

The applicant requests the following modifications to the existing approvals, which are the primary project components:

1. Extend Mining – Extend the mining permit by 20 years through 2047 to allow for the continued extraction of aggregate reserves within the approved mining footprint.
2. Increase Total Tonnage – Increase the total production limit over the term of the permit from 32,170,000 tons mined (26,700,000 tons sold) to 53,536,426 tons mined (46,636,119 tons sold) through 2047.
3. Increase Allowed Area of Simultaneously Disturbed Acreage – Remove the previous analytical assumption in the 1996 EIR restricting the maximum disturbed area at any one time (126 acres⁷) and allow simultaneous disturbance of larger acreage at any one time consistent with the proposed phasing and operation. The amount of actively disturbed⁸ land at any one time during the remaining life of the proposed project would range from 167 to 285 acres.
4. Increase Acreage Used for Processing – Use the eastern half of Phase 2 as an extension of the plant site for stockpiles and construction materials recycling. Use Phase 3 for a new settling pond for deposition of process fines. As a result, reclamation of these areas would not occur until after all mining on the site has been completed (post 2047). Reclamation of all areas would be complete by 2052.
5. Extend Reclamation – Extend the reclamation date by up to 36 years, in some areas.
6. Remove Phase 7 – Modify the approved mining and reclamation plans to eliminate Phase 7 (15 acres of mining; 21.1 acres of reclamation) located on the west side of I-505. As a result, the modified project would be completely to the east of I-505.
7. Other Modifications to Approved Mining Plans – These proposed changes would: a) modify phase boundaries; b) comport all approvals over the years to one conformed set of mining and reclamation plans; c) incorporate areas previously overmined as required by the 2017 Stipulated Order to Comply⁹; and d) reflect existing conditions at the mining

⁷ 1996 EIR, Draft volume, page 4.5-14.

⁸ Section 10-4.429 (Setbacks), subsection (c), of the County Mining Ordinance defines “actively disturbed” areas as those on which mining operations of any kind, or the implementation of reclamation such as grading, seeding, or installation of plant material are taking place.

⁹ See discussion in Section 3.5, Project Background and History, in Chapter 3.0, Project Description.

and processing areas.

8. Other Modifications to Approved Reclamation Plans (Plan Sheets, Narrative, and Habitat Restoration Plan) – These proposed changes would: a) comport all approvals over the years to one conformed set of reclamation plans and one updated complete Habitat Restoration Plan (HRP); b) add other areas (totaling 100 acres) previously disturbed by mining that were not included within the original reclamation area boundaries; and, c) decrease reclaimed agriculture by 57 acres, increase reclaimed open water lake by 51 acres, decrease reclaimed tree crops by 138 acres, and increase reclaimed row crops by 111 acres.
9. Modify Various Conditions of Approval – These proposed changes would integrate all previously approved conditions and include modifications to the conditions to reflect the proposed project as approved.
10. Amend the Development Agreement – These proposed changes would reflect the project as approved (including the extended permit period, and modified mining and reclamation plans) and describe modified/expanded net gains dedications and contributions.

The proposed project would require the following County approvals:

- Certification of a Subsequent EIR prepared pursuant to Section 15162 of the CEQA Guidelines (Subsequent EIR).
- Amendment to Mining Permit No. ZF #95-093 to:
 - Allow mining to continue on ±383 acres (Phases 4 through 6) for an additional 20 years through the year 2047.
 - Approve revised Mining Plan sheets reflecting modified mining phase boundaries, elimination of Phase 7, increased acreage that can be simultaneously disturbed, and increased acreage that can be used for processing.
 - Approve increased the total production limit from 32,170,000 tons mined (26,700,000 tons sold) over the term of the permit to 53,536,426 tons mined (46,636,119 tons sold).
 - Modify various conditions of approval to reflect the final approved changes.
- Amendment to the approved Reclamation Plan to:
 - Modify reclamation area to reflect ±816 total acres reclaimed to ±419 acres of agriculture (approximately 80% row crops and 20% tree crops), ±204 acres of permanent lakes, ±174 acres of riparian and other habitat, and ±19 acres of slopes and roads.
 - Allow a longer period for reclamation by phase and overall, with all reclamation completed by 2052.

- Approve revised Reclamation Plan sheets, Reclamation Plan narrative, and Habitat Restoration Plan.
- Amendment to Development Agreement No. 96-287 to reflect the revised mining and reclamation approvals and net gains.

The proposed project would require the following other agency approvals:

- State Department of Conservation, Division of Mining and Reclamation – Review of proposed amendments to the Reclamation Plan.

1.3 PURPOSE OF THE SUBSEQUENT EIR

As provided in CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

CEQA requires the preparation of an EIR prior to approving any discretionary project that may have a significant effect on the environment. For the purposes of CEQA, the term “project” refers to the whole of an action that has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the County has determined that the requested modifications to Mining Permit No. ZF #95-093, the approved Reclamation Plan, and Development Agreement No. 96-287 is a project that has the potential to result in significant environmental effects within the definition of CEQA.

For projects involving a previously-certified EIR, CEQA Guidelines Section 15162 states that a Subsequent EIR (SEIR) should be prepared in specified circumstances, including when substantial changes are proposed to a project, or the circumstances under which the project will be undertaken have substantially changed, which will require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Further, a SEIR should be prepared where new information becomes available following the certification of the previous EIR that shows: a) the project will have significant effects not discussed in the previous EIR; b) effects discussed in the previous EIR will be substantially more severe than previously shown; c) mitigation measures or alternatives previously found infeasible are in fact feasible but the project proponent declines to adopt them; or d) considerably different mitigation measures or alternatives would substantially reduce significant effects but the project proponents decline to adopt them.

This Draft SEIR examines each required resource topic, including cumulative effects, to determine if the proposed project changes would result in new or substantially more severe significant effects as compared to the analysis in the 1996 EIR, as well as the other criteria identified in Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project, and describes whether new or revised mitigation is required. In taking a final action on the project, the County will consider this Draft SEIR in addition to the 1996 EIR.

The CEQA Guidelines state that the environmental analysis in an EIR must evaluate impacts associated with all phases of a proposed project, including construction and operation, and identify feasible mitigation measures that could minimize any potentially significant adverse impacts. These measures are to be fully enforceable through permit conditions, agreements, or other legally binding instruments (CEQA Guidelines Section 15126.4[a]). Mitigation measures are not required for impacts that are found to be less than significant.

As required in CEQA Guidelines Section 15162, this Draft SEIR also examines whether new feasible mitigation measures or alternatives would substantially reduce significant effects. The lead agency, which is Yolo County for this project, is required to consider the information in the SEIR prior to taking action on the project.

1.4 EIR PROCESS

To initiate preparation of this Draft SEIR, in accordance with State CEQA Guidelines (14 CCR §§ 15082[a], 15103, 15375), Yolo County circulated a Notice of Preparation (NOP) of a EIR for the proposed project on February 26, 2021 (provided as Appendix A). The NOP was circulated to the public; State Clearinghouse; responsible, trustee, and other relevant local, State, and federal agencies; and to the Yolo County Clerk. The scoping period began on February 26, 2021, and ended March 29, 2021.

A scoping meeting before the Planning Commission was held remotely on March 11, 2021. The NOP and scoping meeting provided an additional opportunity for comment from public agencies, stakeholders, organizations, and interested individuals on the scope of the environmental analysis addressing the potential effects of the proposed project. During the scoping period, 11 public and agency responses were received. See Section 1.5 below for a summary of comments received on the NOP. Yolo County reviewed and considered all public comments in preparing this Draft SEIR.

This Draft SEIR addresses all environmental topics and provides a detailed analysis of impacts determined to be potentially significant in the areas of: Agricultural Resources; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural and Tribal Cultural Resources; Geology and Soils, Mineral Resources, and Paleontological Resources; Hydrology and Water Quality; Noise and Vibration; and Transportation and Circulation. Environmental topics for which there would be no change to the impacts identified in the 1996 EIR, or which would have less-than-significant impacts, are addressed in Section 4 and are: Aesthetics and Visual Resources; Hazards, Hazardous Materials, and Wildfire; Land Use, Planning, Population, and Housing; and Public Services, Recreation, and Utilities.

The Draft SEIR will be circulated for a minimum of 45 days, during which time reviewers may make comments. The review period for this Draft SEIR is identified in the Notice of Availability inserted after the cover page. Following the public review period, the County will respond to comments in writing, describing the disposition of any significant environmental issues raised by the commenter. The Draft SEIR will be revised, if needed, and a Final SEIR (Response to Comments document) will be released.

The Final SEIR will include a Mitigation Monitoring and Reporting Program (MMRP). The intent of the MMRP is to ensure the implementation of adopted mitigation measures. The MMRP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns. The applicant will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMRP.

The Yolo County Planning Commission will consider the project and provide a recommendation to the Yolo County Board of Supervisors regarding certification of the Final SEIR and action on the project. The Board of Supervisors will take final action on the certification of the Final SEIR and the project.

1.5 COMMENTS RECEIVED DURING THE SCOPING PERIOD

Yolo County received 11 timely comment letters, including verbal comments presented at the March 11, 2021, Planning Commission scoping meeting identified as comment 8 below. Copies of the letters are provided in Appendix B and a list of the commenters is provided below:

1. California Department of Transportation District 3, dated February 26, 2021
2. Pacific Gas and Electric Company, dated February 26, 2021
3. Madison Fire Protection District, dated February 26, 2021
4. Native American Heritage Commission, dated March 1, 2021
5. California Department of Transportation District 3, dated March 4, 2021
6. Department of Conservation, Division of Mine Reclamation, dated March 9, 2021
7. Yocha Dehe Cultural Resources, dated March 10, 2021
8. NOP Public Scoping Meeting, dated March 11, 2021
9. Central Valley Regional Water Quality Control Board, dated March 29, 2021
10. California Department of Transportation District 3, dated March 29, 2021
11. California Department of Conservation, Division of Mine Reclamation, dated March 29, 2021

The following list (Table 1-1), categorized by issue, summarizes the concerns brought forth in the comment letters and at the scoping meeting and where the comments are addressed within this EIR:

Table 1-1: Summary of Comments Received During the Scoping Period

Project Description (see Chapter 3)	Inquiries related to: <ul style="list-style-type: none"> • Increase in employees; emergency access. • Emergency planning; new or relocated buildings. • State mining identification number.
Agricultural and Forestry Resources (see Section 4.1)	Inquiries related to: <ul style="list-style-type: none"> • Conversion of prime farmland to non-agricultural uses. • Reclamation to agriculture and potential loss of productivity. • Mitigation for loss of farmland.
Biological Resources (see Section 4.3)	Inquiries related to: <ul style="list-style-type: none"> • Potential impacts to habitat. • Potential degradation to quality of habitat after reclamation.
Cultural Resources and Tribal Cultural Resources (See Section 4.4)	Inquiries related to: <ul style="list-style-type: none"> • Consultation with CA Native American tribes. • Impacts to known and unknown cultural and tribal cultural resources.
Geology and Soils, Mineral Resources and Paleontological Resources (See Section 4.5)	Inquiries related to: <ul style="list-style-type: none"> • General administrative questions about the project.
Hydrology and Water Quality (see Section 4.6)	Inquiries related to: <ul style="list-style-type: none"> • Potential impacts to both surface and groundwater quality. • Potential impacts of mining and post-reclamation lakes on groundwater levels and adjacent wells. • Compliance with state water quality permitting
Public Services, Recreation, and Utilities (In Chapter 4 see subsection Resources Analysis)	Inquiries related to: <ul style="list-style-type: none"> • Potential impacts to PG&E facilities and easements.
Transportation and Circulation (see Section 4.8)	Inquiries related to: <ul style="list-style-type: none"> • Potential impacts regarding access for fires, accidents and medical emergencies. • Increase in truck trips leaving the site.

Source: Baseline Environmental Consulting, 2021.

1.6 SCOPE OF THE EIR

This Draft SEIR constitutes a project-level analysis. Pursuant to CEQA Guidelines Section 15161 and in conjunction with the 1996 EIR, the Draft SEIR covers “all phases of the project including planning, construction, and operation.” CEQA Guidelines Section 15126.2(a) states, in pertinent part:

An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the NOP is published, or where no NOP is published, at the time environmental analysis is commenced.

This Draft SEIR considers the analysis and conclusions of the certified 1996 EIR and CCAP Update FEIR and focuses on potential impacts associated with the following topics:

- Agricultural and Forestry Resources
- Air Quality, Greenhouse Gases, and Energy
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Geology and Soils, Mineral Resources, and Paleontological Resources
- Hydrology and Water Quality
- Noise and Vibration
- Transportation and Circulation

The evaluation of effects is presented on a resource-by-resource basis in Sections 4.1 through 4.8 of the Draft SEIR. Each of these sections is divided into four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as “significant and unavoidable.” Section 4.9 identifies topics found to have no significant impact. Chapter 5.0 of the Draft SEIR presents a discussion of growth-inducing impacts, summary of cumulative impacts, and significant irreversible environmental changes associated with the project. Alternatives to the proposed project are discussed in Chapter 6 of the Draft SEIR.

1.7 ORGANIZATION OF THE DRAFT SEIR

The Draft SEIR for the proposed project is organized into the following chapters:

Chapter 1 Introduction

Provides an introduction and overview describing the intended use of the Draft SEIR and the review and certification process, as well as summaries of the chapters included in the Draft SEIR, and summaries of the issues and concerns identified by the public and public agencies during the NOP review period.

Chapter 2 Executive Summary

Summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, summarizes significant and unavoidable impacts, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. Summarizes the results of the assessment of alternatives.

Chapter 3 Project Description

Provides a detailed description of the proposed project, including a description of the project location; background information; major objectives; components covered by the 1996 EIR; new components subject to environmental analysis in the Draft SEIR; and discretionary permits and approvals required for the project to proceed.

Chapter 4 Introduction to the Analysis

Chapter 4 contains eight topical sections that describe existing environmental conditions, relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162 as compared to the 1996 EIR. Chapter 4 also contains a discussion of the following topics which have not substantially changed from the 1996 EIR, would have no impact or a less-than-significant impact, and are not evaluated further: Aesthetics and Visual Resources; Hazards, Hazardous Materials, and Wildfire; Land Use and Planning, Population, and Housing; and Public Services, Recreation, and Utilities.

The following resource topics are addressed in individual sections in Chapter 4:

- Agricultural and Forestry Resources
- Air Quality, Greenhouse Gases, and Energy
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Geology and Soils, Mineral Resources, and Paleontological Resources
- Hydrology and Water Quality
- Noise and Vibration
- Transportation and Circulation

Chapter 5 Cumulative Impacts and Other Required Sections

Provides other analysis required by CEQA including potential growth inducing impacts, significant irreversible changes to the environment, and cumulative impacts.

Chapter 6 Alternatives

Describes the alternatives to the proposed project, their respective environmental effects, and a determination of the environmentally superior alternative.

Chapter 7 EIR Authors and Persons Consulted

Lists EIR and technical report authors who provided technical assistance in the preparation and review of the Draft SEIR.

Chapter 8 References

Provides bibliographic information for all references and resources cited.

Appendices

The appendices to the Draft SEIR include the NOP, comments received during the NOP comment period, project information, and technical reports prepared for the proposed project.

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2 EXECUTIVE SUMMARY

2.1 PROJECT UNDER REVIEW

This Draft SEIR evaluates the environmental impacts related to implementation of the proposed CEMEX Mining and Reclamation Permit Amendment Project (project or proposed project). The proposal would amend the approved mining and reclamation permits to: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans verses on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request. A complete description of the project is contained in Chapter 3.0, Project Description. A summary of physical changes in the project, changes in circumstances under which the project has been undertaken, and new information is provided in Chapter 4.0, Introduction to the Analysis.

2.2 AREAS OF CONTROVERSY

Section 15123 of the CEQA Guidelines requires the summary section of an EIR to include "areas of controversy known to the lead agency, including issues raised by agencies and the public..." The County published a Notice of Preparation (NOP) of the Draft SEIR in February 2021 to help identify the types of impacts that could result from implementation of the project, as well as potential areas of controversy. The NOP was mailed to public agencies, organizations, and individuals likely to be interested in the project and its potential impacts. Additionally, a public meeting to introduce the project and conduct a scoping session for the Draft SEIR was held on March 11, 2021, during a Planning Commission meeting. Eleven agencies/entities provided comments on the NOP and the topics identified in the letters were considered during preparation of this Draft SEIR. Copies of the NOP and the comment letters are included in Appendix A and B, respectively. The following areas of controversy have been identified:

- Impacts to agriculture
- Reclamation to agricultural
- Mitigation for loss of farmland
- Impacts to habitat

2.3 ISSUES TO BE RESOLVED

Section 15123 of the CEQA Guidelines requires the summary section of an EIR include "issues to be resolved including choices among alternatives and whether and how to mitigate significant effects." The following issues fit this requirement:

- Whether to extend the term of the approval.

- Whether to modify the approved reclamation plans.
- Whether to approve an increase in maximum extracted tons.

2.4 SUMMARY OF REGULATORY/POLICY CONSISTENCY

Section 15125(d) of the CEQA Guidelines requires that EIRs include a discussion of any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans. A number of plans and regulations apply to the proposed actions including, but not limited to, the Surface Mining and Reclamation Act, the Yolo County General Plan, the County Zoning Ordinance, the CCAP, and the Surface Mining and Reclamation Ordinance. Chapters 4.1 through 4.12 of this Draft SEIR include an analysis of the proposed project's consistency with applicable policies and regulations specific to each resource area.

2.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter 4 (Introduction to Analysis). This summary also includes discussions of: 1) effects found not to be significant; 2) significant impacts and recommended mitigation measures; and 3) unavoidable significant impacts.

Summary of Effects Found Not To Be Significant

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail. This Draft SEIR found that implementation of the proposed project would not result in new (or more severe) significant impacts in the following issue areas and therefore further analysis of them was not required:

- Aesthetics and Visual Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Population and Housing
- Public Services and Recreation
- Utilities and Service Systems
- Wildfire

These topics and impact areas were eliminated from further analysis (e.g., "scoped out") in Section 4.9 of this Draft SEIR. In the course of conducting the analyses required for this Draft SEIR, other areas of impact were found to be less-than-significant, and they are discussed throughout Section 4.1 through 4.8, and Chapter 5.0.

Summary of Effects Found to Be Significant and Avoidable with Mitigation Measures

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in the physical conditions within the area affected by the project. This includes, but is not limited to, concerns such as land, air, water, ambient noise, and resources of aesthetic significance. Implementation of the project would generate environmental impacts in

several areas, as described in the topical sections contained in Chapter 4 and summarized in Table 2-1.

Pursuant to CEQA Guidelines Section 16162, this Draft SEIR examines each required resource topic, including cumulative effects, to determine if the proposed project would result in new or substantially more severe significant effects that were not analyzed in the 1996 EIR. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required. A summary of identified impacts and appropriate mitigation is provided in Table 2-1.

Summary of Effects Found to Be Significant and Unavoidable

Under CEQA, a significant and unavoidable effect of the project is one that would cause a substantial adverse effect on the environment and for which no mitigation is available or identified to reduce the impact to a less-than-significant level if the project is approved. All impacts are discussed in Chapter 4 of this Draft SEIR and summarized in Table 2-1. The following significant and unavoidable (“SU”) impacts related to implementation of the project were identified in this Draft SEIR:

- Impact 4.1-1: Implementation of the proposed project would have the potential to 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. The impact would be significant and unavoidable.
- Impact 4.8-1: Cause an increase in baseline total VMT. The impact would be significant and unavoidable.
- Cumulative Impact 5-2: Cumulative impacts to farmland. The project’s incremental contribution to cumulative farmland impacts is cumulatively considerable.
- Cumulative Impact 5-14: Cumulative impacts to transportation and circulation (net increase in VMT). The project’s incremental contribution to increases in VMT is cumulatively considerable.

2.6 SUMMARY OF ALTERNATIVES ANALYSIS

Chapter 6.0 of this Draft SEIR includes the analysis of alternatives to the proposed project to meet the requirements of CEQA to analyze a range of reasonable alternatives to a project that would feasibly attain most of the project’s basic objectives and avoid or substantially lessen any of the significant effects of the project. The CEQA alternatives analyzed in Chapter 6 include:

- Alternative 1A, No Project Alternative – This alternative assumes the project is not modified as proposed, no permit extension is granted, and the current reclamation plan would stay in place. The current approvals would expire August 11, 2027. There would be no change in total mined tonnage.

- Alternative 1B, No Project Alternative, Compliance Concerns Corrected – This alternative assumes the project is not modified as proposed, no permit extension is granted, and the current reclamation plan would stay in place. The current approvals would expire August 11, 2027. There would be no change in total mined tonnage. This alternative does assume however, that modifications to the mining and reclamation plans are made to satisfy outstanding compliance concerns.

These modifications include: changes to the mining and reclamation plans to incorporate areas that were overmined and encroachments within the 200-foot Cache Creek setback; design and implementation of expanded hedgerows along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2; resolution of temporary impacts to croplands in excess of the maximum 126 acres of disturbance assumed in the 1996 EIR; corrections to phasing numbering and order; corrections to lot lines; and modifications to fully comport all approvals over the years to one conformed set of mining and reclamation plans, reclamation narrative, and habitat restoration plan).

- Alternative 2, Shorter Permit Extension – This alternative assumes all proposed modifications to the project, except the permit extension is limited to 10 years which is one-half the requested period. Annual mined tonnage, mining footprint, and all other approved components of the project would continue. Total additional mining tonnage would be 10,668,263 tons mined (9,968,060 tons sold) which is 50-percent less than the requested amount.
- Alternative 3, Limited Mining During Extended Period – This alternative assumes the annual cap on extraction (1,204,819 tons mined; 1,000,000 tons sold), is reduced by 50 percent to 602,410 tons mined and 500,000 tons sold for the requested permit extension period (2027 to 2047). The approved 20 Percent Exceedance would continue, which would allow a maximum of up to 722,892 tons mined and 600,000 tons sold in any given year.

As detailed in Chapter 6, Alternatives, Alternative 2, Shorter Permit Extension, would result in reduced impacts compared to the proposed project, meet more of the project objectives than the other alternatives, and would be considered the Environmentally Superior Alternative.

2.7 IMPACTS AND MITIGATION SUMMARY TABLE

Information in the following table (Table 2-1, Summary of Impacts and Mitigation Measures) has been organized to correspond with environmental issues discussed in Chapter 4. The summary table is arranged in four basic columns with the following information:

- Identified environmental impacts;
- Projected level of significance without mitigation;
- Recommended mitigation measures; and
- Projected level of significance after implementation of mitigation measures.

A series of measures are noted where more than one mitigation may be required to reduce the impact to a less-than-significant level. See Chapter 4 for a complete analysis and discussion of impacts and mitigation measures.

Table 2-1: Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	LTS	S		LTS	SU
4.1 Agricultural and Forestry Resources					
<p>Impact 4.1-1 Implementation of the proposed project would have the potential to 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.</p>		X	<p>Mitigation Measure 4.1-1a The applicant shall complete the following subject to approval by the County. Within one year of approval, place a permanent conservation easement on 153.6 acres (51.2 acres of unrealized reclaimed prime farmland at a 3:1 ratio) of equivalent or better unmined prime farmland that has not previously been used for mitigation under any program, compliant with the requirements of Section 8-2404(d), or compliant with Section 10-5.525(a), (b), (c), or (d). The total acreage placed in permanent easement may be reduced to a minimum of 51.2 acres (1:1 ratio) in accordance with Sections 8-2404(d) or 10- 5.525(a), (b), (c), or (d). The proposal and the substantiation in support of finding equivalency shall be provided in writing by the applicant, for review and approval by the Division of Natural Resources.</p> <p>Mitigation Measure 4.1-1b The applicant shall complete the following subject to approval by the County. Within one year of approval, place a permanent conservation easement on 79.5 acres (159 acres of net larger simultaneous disturbance at a 0.5:1 ratio) of equivalent or better (quality and capability as compared to original) agricultural land located on unmined agricultural land that has not previously been used for mitigation under any program, compliant with the requirements of Sections 8-2404(d) and 10-5.525.</p>		X
<p>Impact 4.1-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.</p>	X		None required.	X	
<p>Impact 4.1-3 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.</p>	X		None required.	X	

<p>Impact 4.1-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to agricultural resources.</p>	X		None required	X	
4.2 Air Quality, Greenhouse Gases, and Energy					
<p>Impact 4.2-1 The proposed project would conflict with or obstruct implementation of the applicable air quality plan.</p>	X		None required.	X	
<p>Impact 4.2-2 The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.</p>	X		None required.	X	
<p>Impact 4.2-3 The proposed project would expose sensitive receptors to substantial pollutant concentrations.</p>	X		None required.	X	
<p>Impact 4.2-4 The proposed project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	X		None required.	X	
<p>Impact 4.2-5 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p>		X	<p>Mitigation Measure 4.2-5 Prior to the August 11, 2027 (the original date of expiration of the 1996 entitlements), the operator shall submit for review and approval, a Greenhouse Gas Reduction Plan (GHGRP) to the Yolo County Department of Community Services. In order to demonstrate that implementation of the proposed project would not result in a net increase in GHG emissions from baseline conditions, the GHGRP shall demonstrate how annual operational emissions of the proposed project would be reduced to or below the annual baseline emissions of 5,668 MTCO_{2e}. Strategies to achieve emissions reductions may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> a. Replacement of existing fossil fueled equipment with hybrid or electrically powered equipment b. Purchase of an increased proportion of electricity from renewable sources; c. Installation of on-site renewable energy systems (Note: The operator has an existing wind turbine that provides renewable energy and was accounted for in the impact 	X	

			<p>analysis. This measure would allow for installation of additional renewable energy systems.);</p> <p>d. Use of a blend of renewable diesel and biodiesel (80/20 mix) to power mobile equipment;</p> <p>e. Installation of electric vehicle (EV) charging stations in parking areas for passenger automobiles;</p> <p>f. Purchase of verified carbon credits. Credits purchased as part of this mitigation option shall be real, quantifiable, permanent, verifiable, enforceable, and consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the County and/or the YSAQMD. The credits must be purchased through one of the following: 1) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; 2) any registry approved by CARB to act as a registry under the California Cap and Trade Program; or 3) through the CAPCOA GHG Reduction Exchange.</p>		
<p>Impact 4.2-6 The proposed project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p>	X		None required.	X	
<p>Impact 4.2-7 The proposed project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation.</p>	X		None required.	X	
<p>Impact 4.2-8 The proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.</p>	X		None required.	X	
<p>Impact 4.2-9 The proposed project would cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted</p>	X		None required.	X	

for the purpose of avoiding or mitigating impacts to air quality, GHG emissions, or energy.					
4.3 Biological Resources					
<p>Impact 4.3-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.</p>	X		<p>Mitigation Measure 4.3-1a To demonstrate that potential impacts on Swainson’s hawk and bank swallow foraging habitat are adequately mitigated, the applicant shall:</p> <ul style="list-style-type: none"> a. Demonstrate to the satisfaction of County Counsel that the 2081 authorization was appropriately conveyed from the executing parties to CEMEX; and, b. Determine to the satisfaction of County Counsel whether the 2081 authorization will terminate, require amendment, require reauthorization, or should be superseded by participation in the Yolo HCP/NCCP. <p>Mitigation Measure 4.3-1b COA #59 shall be revised as follows to reference applicable requirements for addressing potential impacts on VELB:</p> <p>The proposed <u>Reclamation Plan, including relevant plan sheets, the reclamation narrative, and the HRP, as appropriate,</u> shall be revised to include specific provisions to ensure compliance with the USFWS <u>“Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle.”</u> “General Compensation Guidelines for the Valley Elderberry Longhorn Beetle.” This shall include measures to: protect all elderberry shrubs to be retained; transplanting shrubs that cannot be avoided; planting replacement elderberry seedlings and associated riparian vegetation at appropriate ratios; and defining short and long-term maintenance, monitoring, and protection methods for the designated mitigation areas. A pre-construction survey for elderberry shrubs shall be performed by a qualified biologist prior to commencement of <u>each phase of mining.</u> The survey shall serve to confirm previous mapping of elderberry locations and determine whether any new shrubs have become established within the new mining area for which protection or replacement should be provided. The results of the survey shall be submitted to the <u>CountyUSFWS</u> as a report summarizing the purpose, findings, and recommendations consistent with the</p>	X	

			<p>provisions of the revised HRP. All elderberry shrubs to be retained shall be flagged and fencing provided where necessary to preclude possible damage or loss of shrubs.</p> <p>Mitigation Measure 4.3-1c COA #61.5 shall be revised as follows to avoid native bird nests in active use and ensure compliance with the Migratory Bird Treaty Act and CDFW Code:</p> <ul style="list-style-type: none"> • A pre-construction raptor <u>and native bird nesting</u> survey shall be conducted by a qualified wildlife biologist prior to initiation of mining <u>in each phase</u> to determine the presence or absence of active raptor <u>and other native bird nests</u> which could be disturbed or lost within the new mining area. The results of the survey shall be submitted to the <u>County CDFG</u> as a report summarizing the purpose, findings, recommendations, and status of any nests encountered. Elements of the pre-construction nesting survey and construction restrictions shall include the following: • Conduct the survey 30 days prior to any <u>tree removal and grubbing</u>, grading or other habitat modifications if proposed during the breeding season for tree nesting raptors <u>and other native birds</u> (from <u>February March 1</u> through August <u>31.15</u>). <u>Confirmation surveys for ground nesting bank swallow shall be conducted as well during this period when grading and other habitat modifications are proposed during the breeding season.</u> Confirmation surveys on presence or absence of burrowing owl ground nesting colonies shall be required prior to initiation of a particular phase of mining at any time of year to ensure absence of any resident owls. • If an active raptor <u>or other native bird</u> nest is encountered, establish an appropriate buffer around the nest location, as determined in consultation with representatives of <u>CDFW CDFG</u>. The perimeter of the buffer zone shall be <u>temporarily fenced or flagged</u> in the field at 50-foot intervals, and all construction activities, 		
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			<p>including grading, tree removal, equipment storage, and stockpiling of soils, shall be prohibited within this buffer zone.</p> <ul style="list-style-type: none"> • Prohibit construction activities within the designated buffer zone until the consulting wildlife biologist has determined that breeding was unsuccessful, that the young have fledged from the nest, or that a <u>CDFW</u>CDFG-approved relocation plan has been successfully implemented. • Prohibit construction activities, including removal of any nest tree or burrow, within the designated buffer zone unless written confirmation from the wildlife biologist on the status of <u>completed</u> nesting activity has been submitted in writing to <u>the County and CDFW</u> CDFG. <p>Mitigation Measure 4.3-1d The following measures will avoid inadvertent take of western red bat and other special-status bat species, if present in trees to be removed:</p> <ul style="list-style-type: none"> • A qualified biologist shall visually inspect trees to be removed for bat roosts within 7 days prior to their removal. The biologist shall look for signs of bats including sightings of live or dead bats, bat calls or squeaking, the smell of bats, bat droppings, grease stains or urine stains around openings in trees, or flies around such openings. Trees with multiple hollows, crevices, forked branches, woodpecker holes, or loose and flaking bark have the highest chance of occupation and shall be inspected carefully. • If signs of bats are detected, confirmation of presence or absence shall be determined by the qualified biologist, which may include night emergence or acoustic surveys. Appropriate measures shall be recommended by the qualified biologist to prevent loss or injury to individual bats if determined to be present. This may include phased removal of any occupied tree over multiple days 		
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			<p>to allow individual bats to disperse to other roosting locations.</p> <ul style="list-style-type: none"> • If an active maternity roost is encountered during the maternity season (April 15 to August 31), CDFW shall be contacted for direction on how to proceed and an appropriate exclusion zone established around the occupied tree or structure until young bats are old enough to leave the roost without jeopardy. The size of the buffer would take into account the proximity and noise level of project activities, the distance and amount of vegetation or screening between the roost and construction activities; and species-specific needs, if known, such as sensitivity to disturbance. • Due to restrictions of the California Health Department, direct contact by workers with any bat is not allowed. A qualified bat biologist shall be contacted immediately if a bat roost is discovered during project construction. 		
<p>Impact 4.3-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</p>	X		None required.	X	
<p>Impact 4.3-3 Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	X		None required.	X	
<p>Impact 4.3-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p>		X	<p>Mitigation Measure 4.3-4 Implement Mitigation Measures 4.3-1(a through d), and Mitigation Measures 4.3-6 (a through c).</p>	X	
<p>Impact 4.3-5 Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.</p>	X		None required.	X	
<p>Impact 4.3-6 The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels;</p>		X	<p>Mitigation Measure 4.3-6a The proposed Habitat Restoration Plan shall be modified as follows:</p>	X	

<p>threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare or threatened species.</p>			<ol style="list-style-type: none"> 1. The proposed HRP shall be modified and resubmitted for staff confirmation of compliance to incorporate a new section integrating hedgerow as a restoration planting type and including descriptive text, locations for required and expanded planting, cross-sections, and elevations substantively equal to or better than the equivalent information contained in the approved 1995/1997 HRP. The HRP shall define performance standards and completion benchmarks, and identify monitoring and reporting requirements. Proposed Exhibit A, Hedgerow Restoration Plan (see Figure 4.3-4), and proposed Exhibit B, Hedgerow Irrigation Plan (see Figure 4.3-5), shall also be integrated. 2. Proposed Exhibit A, Hedgerow Restoration Plan, shall be modified to adjust the location and interval of woody plantings, and reference the seed mix and application rates in Table 4 of the proposed HRP. Where hedgerow treatments are required to be integrated into native grassland zones, tree and shrub plantings shall occur at minimum intervals of about 300 feet. 3. 2022 Minor Modification Condition #4 shall be clarified as follows to reflect corrected information: Implement hedgerow planting to provide required vegetative cover within a continuous uninterrupted band along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2. The width of the new hedgerow planting shall match the width of the existing hedgerow <u>riparian depression</u> plantings on the north. If the PG&E powerline easement prohibits the planting of species identified for the rest of the hedgerow, alternative native species may be proposed for the powerline easement right-of-way area. The design shall be approved by the County with input from the Cache Creek Area Plan Technical Advisory Committee's Riparian Biologist, <u>and shall reflect the modifications described in Measure 4.3-6a(1) and (2) above. The applicant shall submit design plans (including proposed native species and irrigation) for County review and approval no later than September</u> 		
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			<p>30, 2022. All approved improvements shall be implemented within 90 days of County approval.</p> <ol style="list-style-type: none"> 4. All plans, permit documents, and exhibits shall be modified to be consistent with the final approved HRP as modified by mitigation measures and/or conditions of approval. 5. The proposed HRP shall be modified to include hedgerow plantings integrated: (i) in the native grassland reclamation proposed for the sloped transition between unmined agricultural fields and reclaimed agricultural fields in phases 1 through 4 (shown in pink on Figure 4.3-8, Mitigation Measure 4.3-6 Expanded Hedgerows and Native Habitat Enhancement); and (ii) on the west, south, and east sides of the combined future reclaimed lake area within the proposed native grasslands buffer areas (shown in red on Figure 4.3-8). 6. The minimum width of the proposed new hedgerow plantings in the agricultural transition area described in item 5(i) shall be the entire width of the transition slope. The minimum width of the hedgerow plantings around the lake area described in item 5(ii) shall be the entire width of the proposed native grassland buffer area as shown in the final approved HRP. 7. Proposed native habitat enhancement adjoining the creek north of Phases 1, 3, and 4 (shown in purple on Figure 4.3-8) are acceptable, as revised by other mitigation measures and/or conditions of approval. 8. Throughout the life of the mining and reclamation approvals, the applicant shall annually monitor and actively maintain all hedgerows. <p>Mitigation Measure 4.3-6b The proposed HRP shall be revised to expand the Oak Savanna and Native Grassland treatment to a minimum of 200 feet south of the top of bank to Cache Creek along the entire existing Plant Site and west to I-505 (Kaupke parcel) (shown in</p>	
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		<p>green on Figure 4.3-8).</p> <p>Mitigation Measure 4.3-6c The following modifications to the proposed HRP and Reclamation Plans are required:</p> <ol style="list-style-type: none">1. The proposed HRP shall be modified to:<ol style="list-style-type: none">a. Modify the size for both islands to 0.8 acres each measured above the high water elevation. Provide design details for both islands subject to review and approval by the County.b. Both islands shall be clearly identified in mining plans, reclamation plans, and revegetation plans in the proposed HRP as permanent features.c. Peninsulas and other modifications to shoreline treatments shall be shown on the reclamation plans.d. The east lake shoreline shall have a minimum of three smaller peninsulas with a total acreage equal to or exceeding the acreage as proposed, designed to improve habitat complexity (see Figure 4.3-9, Lake Shorelines with Peninsulas).e. Reclamation plans sheets and the final figures in the HRP shall be consistent. Reclamation Plan sheets shall be made consistent with HRP Figure 3, Typical Cross-Section detail.2. COA #56 shall be replaced with the following: Characteristics of the two permanent islands and shoreline treatments shall include the following:<ol style="list-style-type: none">a. The elevation of the island shall extend a minimum of five feet above the average high groundwater level (approximately 125-foot elevation) to prevent complete inundation during the winter months. Slopes of the island shall not exceed 3:1 above the average low groundwater level.	
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			<p>b. The channel of water separating the island from the mainland shall have a minimum distance of 20 feet and a depth reaching at least 5 feet during the average summer low groundwater level to prevent predators from wading to the island during the summer months. A temporary land-bridge to permit vehicle access and maintenance of restoration plantings on the island may be included in the design, or alternative method defined to ensure maintenance and monitoring. If land-bridge access is used, it shall be removed following completion of the minimum five-year monitoring program for the restoration effort.</p> <p>c. The islands shall be revegetated with perennial marsh at the lowest elevations and low terrace riparian species up to the average high groundwater level, with a cover of native grassland and scattered shrubs and trees provided over the top of the island. The HRP shall ensure successful establishment of vegetative cover on the islands, which shall include installation of temporary irrigation consistent with other tree and shrub plantings.</p>		
<p>Impact 4.3-7 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>		<p>X</p>	<p>Mitigation Measure 4.3-7 The following revisions to the proposed HRP shall be implemented to expand species diversity, allow for verification of annual monitoring, and ensure control of noxious weed species as part of on-going and future maintenance:</p> <ol style="list-style-type: none"> 1. Increase the diversity of plantings in the shrub layer of the Oak Savanna to include wood rose (<i>Rosa californica</i>) (Table 3). 2. Define additional controls for Noxious Grassland Species under the Weed Control Plan to address common invasive species with a moderate California Invasive Plant Council (IPC) rating of Moderate, with 	<p>X</p>	

			<p>corrective action taken to reduce their dominance and encourage native perennial species in areas of Native Grassland and Oak Savanna Understory any time estimated cover of target invasive species exceeds 5 percent.</p> <ol style="list-style-type: none"> 3. Include an Invasive Cover component of less than 5 percent in the Performance Criteria for Riparian Woodland and Oak Savannah (Table 7) where corrective action is to be taken as part of annual maintenance any time this threshold is exceeded. 4. Expand the Performance Standards under the Weed Control Plan to clearly define corrective actions any time target species exceed the 5 percent cover threshold. This shall at minimum include options of mechanical or cultural (i.e., grazing) treatment on an annual basis as necessary to reduce abundance, particularly for more common invasive grass species which tend to dominate native grassland restoration areas. 5. Revise the proposed HRP to require update as necessary of the list of target invasive species to be monitored based on input from the TAC Riparian Biologist, to ensure that new invasive species that may colonize the site are adequately addressed as part of future monitoring and treatments. 6. Provide in annual reports, the GPS coordinates for test plot locations established as part of the annual monitoring effort, to allow for field inspection by the County. 7. Modify the notation at the bottom of the Native Grassland Buffer Plant List (Table 4) to clarify that overall species diversity shall be maintained even where substitutions may be necessary based on availability and demonstrated suitability. 		
<p>Impact 4.3-8 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or</p>	X		None required.	X	

mitigating an environmental effect.					
4.4 Cultural Resources and Tribal Cultural Resources					
<p>Impact 4.4-1 The proposed project could cause a substantial adverse change in the significance of an historical resource pursuant to CEQA Guidelines, Section 15064.5.</p>		X	<p>Mitigation Measure 4.4-1 In addition to compliance with Section 10-4.410 of the Mining Ordinance, the following new requirements shall be implemented for the proposed project to reduce potential impacts associated with a substantial adverse change in the significance of an historical resource to a less-than-significant level. This measure, together with Mitigation Measure 4.5-5, replace Condition of Approval No. 73 and Condition of Approval No. 74.</p> <ul style="list-style-type: none"> a. The operator shall modify the Reclamation Plans to add 8-10 inches of additional soil over the protected confidential reburial site, blended with the existing grade on the exterior and mounded in the center. Reclamation plantings shall consist of native grasses, and plants with a shallow root system. The added soil and plantings shall blend in with the surrounding restoration and reclamation. b. The operator shall fence the protected confidential reburial site for CA-YOL-69 to the specifications set by the County. Stake and wire fencing, or other fencing approved by the County, may be used to protect the site during mining. Sturdier permanent fencing shall be installed during final reclamation, including over a larger area than the reburial site. c. The operator shall design, develop, and install new signage to discourage access by operator’s personnel and approved visitors, subject to County approval. The operator shall be responsible for annual monitoring and regular ongoing maintenance of the signage. d. The operator shall record a deed restriction or Declaration of Covenants and Restrictions to protect the area, the choice between the two and the content shall be subject to County review and approval. 	X	

			<p>e. If isolated artifacts are encountered on other parts of the project site they shall be placed within the restricted area.</p> <p>f. Within six months of approval, the operator shall retain a qualified professional archaeologist, subject to approval by the County, to develop and implement a contractor awareness training program. A consultant and construction worker cultural resources awareness brochure and training program for all personnel involved in project implementation shall be developed in coordination with interested Native American tribes. The brochure shall be distributed and the training shall be conducted in coordination with qualified cultural resources specialists and Native American Representative and monitors from culturally affiliated Native American Tribes. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The worker cultural resources awareness program shall describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential archeological resources or artifacts are encountered. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native American and for behavior consistent with Native American Tribal values. A copy of the cultural resources awareness brochure and written verification of completion of the training program shall be submitted to the Yolo County Department of Community Services. All employees involved with ground disturbance and other related construction activities shall complete this training annually.</p> <p>g. Actions a, b, c, and e shall be performed by/under the direction of a professional archeologist and tribal monitor.</p>		
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<p>Impact 4.4-2 Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5.</p>		X	<p>Mitigation Measure 4.4-2 Implement Mitigation Measure 4.4-1.</p>	X	
<p>Impact 4.4-3 Disturb any human remains, including those interred outside of dedicated cemeteries.</p>		X	None required.	X	
<p>Impact 4.4-4 Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>		X	<p>Mitigation Measure 4.4-4 Implement Mitigation Measure 4.4-1.</p>	X	
<p>Impact 4.4-5 The project has the potential to eliminate important examples of the major periods of California history or prehistory (CEQA Guidelines, Section 15065(a)(1)).</p>		X	<p>Mitigation Measure 4.4-5 Implement Mitigation Measure 4.4-1.</p>	X	
<p>Impact 4.4-6 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to cultural and Tribal Cultural Resources.</p>	X		None required.	X	
4.5 Geology and Soils, Mineral Resources, and Paleontological Resources					
<p>Impact 4.5-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.</p>	X		None required.	X	

<p>Impact 4.5-2 Result in substantial erosion or loss of topsoil.</p>	X		None required.	X	
<p>Impact 4.5-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</p>	X		None required.	X	
<p>Impact 4.5-4 Be located on expansive soils, as defined in Table 18-1-B of the California Building Code, creating substantial risks to life or property.</p>	X		None required.	X	
<p>Impact 4.5-5 Directly or indirectly destroy a unique paleontological resource.</p>		X	<p>Mitigation Measure 4.5-5 In addition to compliance with Section 10-4.410 of the Mining Ordinance, the following new requirements shall be implemented for the proposed project to reduce potential impacts associated with a substantial adverse change in the significance of a paleontological resource to a less-than-significant level. This measure together with Mitigation Measure 4.4-1 replace Conditions of Approval #73 and 74.</p> <p>Within six months of approval, the operator shall retain a qualified professional, subject to approval by the County, to develop and implement a contractor paleontological awareness training program. The program will provide resource sensitivity training regarding ground disturbing activities, discovery of paleontological resources, required protocols and notifications, and information about other related treatments or issues that may arise if paleontological resources are discovered during project construction. All employees involved with ground disturbance and other related construction activities shall complete this training annually.</p>	X	
<p>Impact 4.5-6 The loss of availability of a known mineral resource that would be of value to the region and the residents of the State.</p>	X		None required.	X	
<p>Impact 4.5-7 The loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.</p>	X		None required.	X	
<p>Impact 4.5-8 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of</p>	X		None required.	X	

avoiding or mitigating impacts to geology and soils, mineral resources, and paleontological resources.					
4.6 Hydrology and Water Quality					
Impact 4.6-1 The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or ground water quality.	X		None required.	X	
Impact 4.6-2 The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	X		None required.	X	
Impact 4.6-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	X		None required.	X	
Impact 4.6-4 In flood hazard, tsunami, or seiche zones, result in release of pollutants due to project inundation.	X		None required.	X	
Impact 4.6-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	X		None required.	X	
Impact 4.6-6 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to hydrology and water quality.		X	Mitigation Measure 4.6-6 No later than March 2031, the operator shall submit an updated hydraulic analysis of the CEMEX reach that utilizes and incorporates the most recent version of the County hydraulic model including updated/current site data. The model, method, and all inputs shall be reviewed and approved by the County, including review by the TAC geomorphologist and hydraulic engineer. Consistency with Section 10-4.429(e) and other applicable sections of the Mining and Reclamation Ordinances shall be demonstrated.	X	

			The analysis shall confirm containment of 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area between the channel boundary and the edge of mining, particularly in areas where prior over-mining has occurred. All recommendations, including bar skimming and other channel maintenance activities consistent with County regulations, the CCAP, and recommendations of the TAC shall be timely implemented by the operator.		
4.7 Noise and Vibration					
Impact 4.7-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	X		None required.	X	
Impact 4.7-2 Generation of excessive groundborne vibration or groundborne noise levels.	X		None required.	X	
Impact 4.7-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.	X		None required.	X	
Impact 4.7-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating noise impacts.	X		None required.	X	
4.8 Transportation and Circulation					
Impact 4.8-1 Cause an increase in baseline total VMT.		X	Mitigation Measure 4.8-1 Implement Mitigation Measure 4.2-5.		X
Impact 4.8-2 Cause an inconsistency with applicable design standards.	X		None required.	X	
Impact 4.8-3 Cause a substantial decrease in safety.	X		None required.	X	
Impact 4.8-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating transportation impacts.		X	Mitigation Measure 4.8-4 The Board shall make the following findings to ensure consistency with the General Plan and CCAP, if this project is approved:	X	

			The Board hereby finds that acceptance of a reduced Level of Service under existing and future conditions at the intersection of SR 16 and CR 96 is appropriate pursuant to Policy CI-3.1(X) of the General Plan which allows for such exceptions in recognition of the benefits of preserving agriculture or open space land; enhancing the agricultural economy; preserving the rural character of the county; avoiding adverse impacts to alternative transportation modes; avoiding growth inducement; and where right-of-way constraints would make the improvements infeasible.		
4.9 Topics Found to Have No Significant Impacts					
Population and Housing		No Impact	None required		N/A
Public Services and Recreation		No Impact	None required		N/A
Utilities and Service Systems		No Impact	None required		N/A
Aesthetics and Visual Resources	X		None required	X	
Hazards and Hazardous Materials	X		None required	X	
Land Use and Planning	X		None required	X	
Wildfire	X		None required	X	
5.0 Cumulative Impacts and Other Required Sections					
Growth Inducing Impacts	X		None required	X	
Impact 5-1 Cumulative impacts to aesthetics.	X		None required	X	
Impact 5-2 Cumulative impacts to farmland.		X	Mitigation Measure 5-2 Implement Mitigation Measure 4.1-1a and b		X
Impact 5-3 Cumulative impacts to air quality.	X		None required	X	
Impact 5-4 Cumulative greenhouse gas emissions.	X		Mitigation Measure 5-4 Implement Mitigation Measure 4.2-5	X	
Impact 5-5 Cumulative impacts to energy.	X		None required	X	

Impact 5-6 Cumulative impacts to biological resources.	X		Mitigation Measure 5-6 Implement Mitigation Measures 4.3-1(a-d), 4.3-6(a-c), and 4.3-7.	X	
Impact 5-7 Cumulative impacts to cultural and tribal cultural resources.	X		Mitigation Measure 5-7 Implement Mitigation Measure 4.4-1.	X	
Impact 5-8 Cumulative impacts to geological and paleontological resources.	X		Mitigation Measure 5-8 Implement Mitigation Measure 4.5-5.	X	
Impact 5-9 Cumulative impacts from hazards and hazardous materials.	X		None required.	X	
Impact 5-10 Cumulative impacts to hydrology and water quality.	X		Mitigation Measure 5-10 Implement Mitigation Measure 4.6-6.	X	
Impact 5-11 Cumulative impacts to land use.	X		None required.	X	
Impact 5-12 Cumulative impacts from noise and vibration.	X		None required.	X	
Impact 5-13 Cumulative impacts to public services, utilities, and service systems.	X		None required.	X	
Impact 5-14 Cumulative impacts to transportation and circulation.		X	Mitigation Measure 5-14 For increased VMT, implement Mitigation Measure 4.8-1.		X
	X		Mitigation Measure 5-14 For LOS policy conflicts, implement Mitigation Measure 4.8-4.	X	
Significant Irreversible Changes	No Impact		None required.	N/A	

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3 PROJECT DESCRIPTION

3.1 PROJECT SUMMARY

The proposed project (also referred to as permit amendment) is a request to modify an approved mining permit and reclamation plan for the existing CEMEX sand and gravel mining operation to allow more mining over a longer period of time. The existing off-channel mining operation is operated subject to a 1996 permit approval (as subsequently modified), but has been operating continuously at that location since the 1970s. The operation is identified by the State Department of Conservation, Division of Mining and Reclamation (DMR) as Mine Identification Number 91-57-0008. The subject application (ZF #2018-0015) was received February 28, 2018, and subsequently revised several times. The most recent revision to the project application occurred on November 23, 2022. Project application material can be viewed at:

<https://www.yolocounty.org/government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/mining-projects-and-permits/cemex-cache-creek-mining-and-reclamation-permit-amendment-application-zf-2018-0015>

The operation, as currently approved (Mining Permit No. ZF #95-093 and Development Agreement No. 96-287), is located primarily east of Interstate 505 (I-505), along the south bank of Cache Creek, near the unincorporated community of Madison. The existing off-channel mining operation is operated subject to a 1996 permit approval (as amended), but has been operating continuously at that location since the 1970s. The existing project site is 1,902 acres, with mining currently limited to 586¹ acres and reclamation required for 716 acres (including the 30-acre plant site). The current approvals allow maximum annual mining of 1,445,783 tons (1,200,000 tons sold) and maximum total mining of 32,170,000 tons (26,700,000 tons sold). Mining is allowed to occur in seven phases moving generally from west to east, to a maximum depth of 70 feet, over a 30-year period ending August 2027.

The proposal would amend the approved mining and reclamation permits to: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans verses on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of

¹ The 1996 EIR refers to a 598-acre mining area. The executed Development Agreement refers to a 586-acre mining area. Neither of these acreages includes the 100-acre Hutson parcel (for which mining was concluded but reclamation would occur) or the 30-acre plant site (which was amended into the plans in 2003). This Draft SEIR relies on acreages as described in the executed Development Agreement. Since the 1996 EIR examined impacts associated with slightly different but overall higher total acreage, this approach is more conservative; moreover since the executed Development Agreement governs project operation this approach is defensible.

reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request.

As related specifically to reclamation end uses, Table 3-1 below provides a general comparison of the requested changes:

Table 3-1: Summary of Proposed Changes to Reclamation End Uses

Reclaimed End Uses (acres)	Agriculture	Habitat	Lake	Slopes / Roads / Buffers	Total
Approved	476.0 ^[1]	61.0 ^[5] (on plan sheets) 166.0 (in HRP)	153.0 ^[6]	26.0	716.0 ^[2]
Proposed	418.6	174.0	204.0	19.2	815.8 ^[4]
Difference (% change)	-57.4 (-12%)	113.0 ^[5] (+185%) ^[5] (on plan sheets) +8.0 (+5%) (in HRP)	51.0 (+33%)	-6.8 (-26.2%)	99.8 ^[3] (+14%)

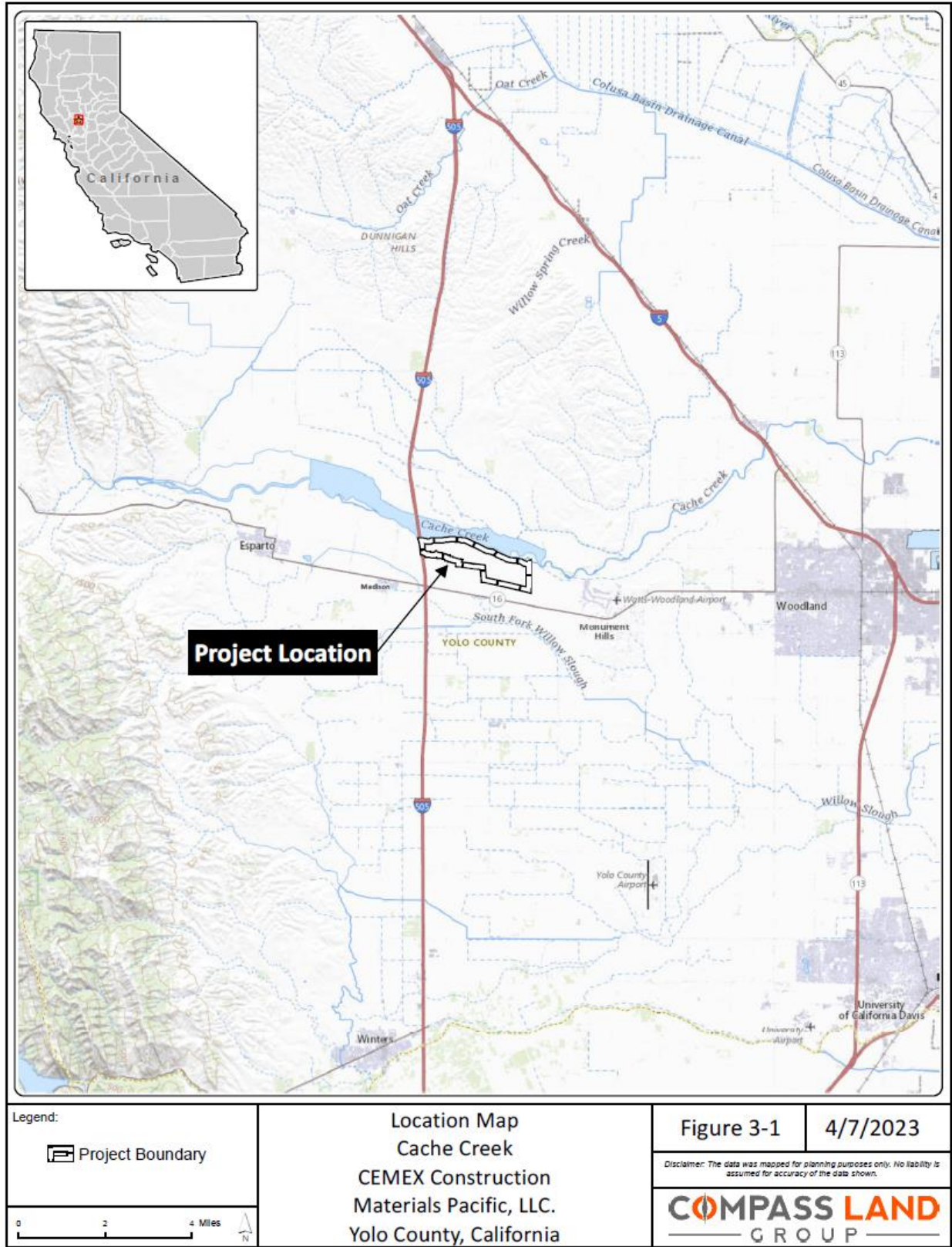
Notes:

- ¹ 1996 Development Agreement, as amended. Includes 30-acre plant site and 100-acre Hutson parcel (Phase 1).
- ² Includes 30-acre plant site and 100-acre Hutson parcel (Phase 1).
- ³ Disturbed area along entire northern boundary of approved mining adjoining creek bank and I-505 buffer area. Reflected generally in Figure 3-9, Mining and Reclamation Comparison, as approximately 89 acres (119 ac. – 30 ac. plant site). Discrepancy (89 ac. vs. 99.8 ac.) attributable to improved mapping accuracy over time and proposed elimination of Phase 7 area from proposed operation.
- ⁴ This number reflects the elimination of Phase 7.
- ⁵ Approved reclamation plans include 61 acres of habitat; approved Habitat Restoration Plan (HRP) includes 166 acres of habitat. This difference is resolved with the proposed project which would incorporate all acreage requiring reclamation into the approved reclamation plans. The proposed reclamation plans and proposed HRP both include 174 acres of habitat. This reflects an actual increase of 8.0 acres (5%) of habitat.
- ⁶ The Development Agreement references 153 acres for the total size of the four lakes. Based on digitization, the actual acreage is approximately 146 acres.

3.2 PROJECT LOCATION AND SETTING

The project site is located at 30288 State Route (SR) 16, Woodland, California 95653, in the central portion of unincorporated Yolo County (Figure 3-1, Location Map) near the town of Madison, approximately seven miles west of the city of Woodland. The excavation area, processing plant, and office are currently accessed from an existing driveway entrance on the north side of SR-16. The site is predominantly located east of I-505 but includes one parcel (Mining Phase 7) immediately west of I-505 (Figure 3-2, Site Plan). Phase 7 is proposed to be eliminated as a component of the project. The Phase 7 area has not been disturbed by mining operations. The site consists of 12 adjacent assessor parcel numbers. Other information related to ownership, County zoning and County General Plan land use designations is shown in Table 3-2, below.

**Figure 3-1
 Location Map**



**Figure 3-2
 Site Plan**

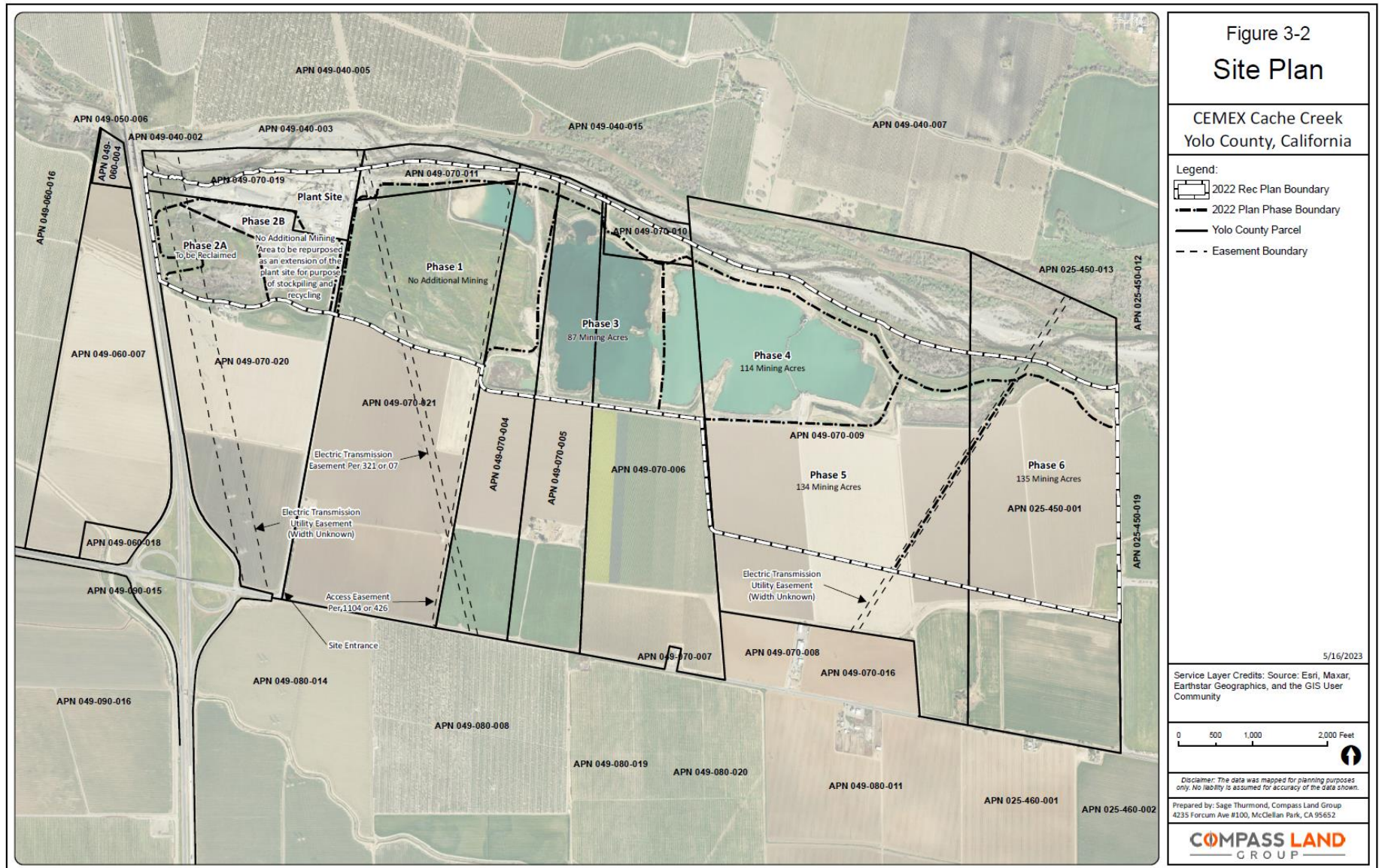


Table 3-2: Assessor Parcels, Ownership, Zoning, and General Plan Designations

APN (Proposed Phase)	Assessor Acres ^[1]	Surveyed Acres ^[2]	Ownership ^[3]	Zoning ^[4]	General Plan ^[5]
025-450-001 (portion of Ph 6)	291.1	280.0	United Metro Materials Inc.	A-N (SG) POS (SG) A-N	AG (MRO) OS (MRO)
049-060-004 (portion of Ph 7)	6.3	6.3	Solano Concrete Co., Inc	A-N (SG) POS (SG)	AG (MRO) OS (MRO)
049-060-007 (portions of Ph 7)	142.8	142.4	Solano Concrete Co., Inc.	A-N (SG) A-N	AG (MRO)
049-070-004 (portions of Ph 1, 3)	112.7	110.7	United Metro Materials Inc.	A-N (SG) POS (SG) A-N	AG (MRO) OS (MRO)
049-070-005 (portion of Ph 3)	98.5	112.8	United Metro Materials Inc.	A-N (SG) POS (SG) A-N	AG (MRO) OS (MRO)
049-070-006 (portions of Ph 3, 4, 5)	200.2	200.1	United Metro Materials Inc.	A-N (SG) POS (SG) A-N	AG (MRO) OS (MRO)
049-070-009 (portions of Ph 4, 5, 6)	444.0	461.6	United Metro Materials Inc.	A-N (SG) POS (SG) A-N	AG (MRO) OS (MRO)
049-070-010 (portions of Ph 3, 4)	17.1	17.1	Solano Concrete Co., Inc.	A-N (SG) POS (SG)	AG (MRO) OS (MRO)
049-070-011 (portions of Ph 1 and plant site)	26.2	26.5	Solano Concrete Co., Inc.	A-N (SG) POS (SG)	AG (MRO) OS (MRO)
049-070-019 (portion of plant site)	53.9	48.0	Solano Concrete Co., Inc.	A-N (SG) POS (OS)	AG (MRO) OS (MRO)
049-070-020 (portions of Ph 2 and plant site)	212.2	218.5	United Metro Materials Inc.	A-N (SG) A-N	AG (MRO)
049-070-021 (portions of Ph 1 and plant site)	276.4	278.3	Solano Concrete Co., Inc.	A-N (SG) A-N	AG (MRO)
Total:	1,881.4	1902.3			

Notes:

¹ Source: Yolo County Assessor, accessed November 28, 2017. Note the total of these acreages (1,881.4 acres) does not match the total of 1,828 acres from the 1996 EIR. Discrepancy attributable to improved mapping accuracy over time.

² Source: Record of Survey, filed January 12, 2018, in 2018 Book of Maps at pages 2-4.

³ United Metro Materials Inc. and Solano Concrete Co., Inc. are fully-owned subsidiaries of CEMEX.

⁴ A-N = Agricultural Intensive. Sand and Gravel (SG) overlay zone applied in 1996 to areas approved for mining.

⁵ Source: 2030 Countywide General Plan, with verification thru Yolo County GIS Public Viewer.

AG = Agriculture. OS = Open Space. The Open Space land use designation applies to the portions of the parcels associated with Cache Creek.

The project site is located within the boundaries of the Cache Creek Area Plan (CCAP) adopted by the Board of Supervisors in 1996, as amended in December 2019 (CCAP Update). The CCAP Update was evaluated in the CCAP Update FEIR (SCH #2017052069) certified in December 2019. The CCAP incorporates the Off-Channel Mining Plan for Lower Cache Creek (OCMP)² and the Cache Creek Resources Management Plan (CCRMP).³ The CCRMP and OCMP are adopted components of the County General Plan, and are implemented primarily through the County's Mining Ordinance, Reclamation Ordinance, and In-Channel Ordinance.

The General Plan and Zoning designations on the project site are identified in Table 3-2 above. The General Plan land use designation of Agriculture (AG) supports surface mining (General Plan Table LU-4 and associated policies). The General Plan Mineral Resource Overlay (MRO) identifies areas within the CCAP area that have been identified by the state (State designated Mineral Resource Zone 2 or MRZ-2 areas) as containing known significant deposits of aggregate, and existing mining operations. Per County Code, all areas approved for mining must have this designation. The in-channel portions of the site where Cache Creek crosses the property are designated in the General Plan as Open Space (OS) and fall under the management of the CCRMP (General Plan, p. CO-13). The County zoning designation of Agricultural-Intensive (A-N) allows surface mining when combined with the Sand and Gravel Overlay (S-G), and subject to approval of a Major Use Permit. The existing mining operation received all required land use designations, zoning, and approvals in 1996.

The project site is located in the southern portion of a relatively flat and wide alluvial valley known as Hungry Hollow. The local topography consists of a broad alluvial plain formed at the base of the eastern flank of the California Coast Range. The alluvial valley is oriented northwest to southeast. Cache Creek transects the valley, flowing generally from west to east.

Land uses on the site consist primarily of mining and agricultural land in various stages of mining and reclamation. Agricultural production on and around the site are mainly row crops. Annual grassland with sections of ruderal vegetation is found around the perimeter of the agricultural and actively mined areas as well as in much of the required minimum 200-foot buffer from the bank of Cache Creek. Remnant sections of riparian habitat (riparian depressions) also fall within the 200-foot Cache Creek buffer. There is a narrow band of riparian vegetation on the southern bank of Cache Creek (north side of the project site) which serves as a natural vegetative buffer between mining and the creek. The creek is approximately 35 feet lower in elevation at this point. This area is undisturbed and does not fall within the mining or reclamation plan boundaries.

The predominant land uses in the vicinity of the Project include aggregate mining and processing, agriculture, and open space associated with Cache Creek. To the north, the site is bound by Cache Creek and agricultural lands further north. To the east, the site is bound by agriculture, including various uses allowed within that zone such as farm dwellings and ancillary commercial-type uses. To the south, the site is bound by SR-16, agriculture, and occasional farm dwellings.

² Yolo County. 2019. Updated Final Off-Channel Mining Plan (OCMP) for Lower Cache Creek, adopted July 30, 1996 and Updated December 17, 2019.

³ Yolo County. 2019. Updated Final Cache Creek Resource Management Plan (CCRMP). Adopted July 30, 1996 and Updated December 17, 2019.

To the west, the site is bound generally by I-505. The exception is Phase 7 which is located west of I-505 and is bound to the west by agriculture and rural residences. As a component of the proposed project, the applicant has proposed to eliminate Phase 7.

3.3 PROJECT OBJECTIVES

The objectives of the applicant are as follows:

1. To continue extraction of sand and gravel resources at the approved annual rate of production for the processing and sale of aggregate products through 2047.
2. To maximize the extraction of the remaining available sand and gravel resources located within the permitted mining footprint.
3. To increase total tons sold over the 20-year extended life of the permit by 20 million tons.
4. To continue to supply an economic and reliable source of construction materials to the Yolo County market, utilizing the existing aggregate processing facility, conveyor system, and associated infrastructure.
5. To establish a new settling pond for deposition of process fines.
6. To use the eastern 31.9 acres of the existing Phase 2 area as an extension of the existing processing plant site for purposes of product stockpiling and construction materials recycling.
7. To implement the proposed reclamation plan to establish end uses of agriculture, permanent lakes, and wildlife habitat in accordance with the Surface Mining and Reclamation Act (PRC 2710, et seq.) and CCAP.
8. To continue to employ approximately 15 mining and processing personnel at the site.
9. To resolve outstanding operational concerns identified by the County.

3.4 PROJECT JUSTIFICATION

The applicant has provided the following justification for the project:

The project is an extension and modification of an approved project. The project is consistent with the State Legislature and County's recognition that the extraction of minerals is essential to the continued economic well-being of the State, County and to the needs of society (as codified in PRC Section 2711(a) and Section 10-4.103 of the County Mining Ordinance. As published in the California Department of Conservation's "Map Sheet 52, Aggregate Sustainability in California" (2018), aggregate construction materials are essential to modern society, both to maintain the existing infrastructure and to provide for new construction. Specific to the Sacramento-Fairfield production consumption region, within which Yolo County lies, the State projected that only 37 percent of a projected 50-year aggregate demand of 295

million tons is currently permitted. This 50-year demand reflects a 50 percent increase as compared to the State's previous estimate of 196 million tons in the 2012 version of Map Sheet 52 report.

The CEMEX operation is a regionally important source of high-quality construction aggregate material that has helped serve the building and infrastructure needs of Yolo County and the Sacramento-Fairfield production consumption region for over 40 years. The State Department of Conservation has identified the project site as being in the MRZ-2 zone, meaning that significant mineral deposits are present or that a high likelihood for their presence exists.

This project will ensure the continued supply of construction materials and associated jobs for the region while providing for current reclamation standards to be achieved. Further, maintaining a local source of construction materials will minimize the economic and environmental costs (e.g., increased construction cost, fuel consumption, greenhouse gas emissions, and traffic congestion) associated with transporting aggregate from distant sources. In addition, promoting the continued use of the existing electric dredge in an efficient manner is environmentally superior to the former wet-excavation method of using a diesel-powered dragline.

The project is consistent with the existing zoning and General Plan designations for the site and includes a reclamation plan to return mined lands to a useable condition that includes agriculture, permanent lakes, and wildlife habitat. The project is consistent with the CCAP, Mining Ordinance, and Reclamation Ordinance.

3.5 PROJECT BACKGROUND AND HISTORY

Aggregate mining in Yolo County has occurred in and along Cache Creek since the early 1900s. Through the mid-1990s, the extraction of sand and gravel resources in Yolo County occurred primarily within the Cache Creek channel. Since 1996, due to environmental concerns, commercial mining has been prohibited from occurring in-channel⁴, and has been limited to off-channel locations outside of the active floodplain.

The CEMEX facility is a regionally important source of high-quality construction aggregate material that has helped serve the building and infrastructure needs of Yolo County and the Sacramento-Fairfield production consumption region for over 40 years. The State Department of Conservation has designated the project site Mineral Resource Zone (MRZ) 2, reflecting the known presence of significant mineral deposits.

Prior to any surface mining disturbances, the project site was predominantly used for agriculture. The subject operation was originally developed by Solano Concrete Company, Inc. (Solano) and has been continuously mined since 1971. In 1999, Solano's assets were acquired by Kiewit Corporation, which were later acquired by Rinker Materials in 2002. In 2008, CEMEX acquired

⁴ Limited exceptions for in-channel maintenance are allowed under the County's In-Channel Mining Ordinance.

Rinker's assets and became the current owner and operator of the site. The following is a summary of relevant approvals, modifications, and compliance-related communications:

1971 In-Channel Mining Approval – Solano began gravel extraction and processing in the project vicinity in 1971 following County approval of ZF #1541 (Planning Commission, February 16, 1971), which allowed for aggregate extraction as well as the establishment of an off-channel processing plant that remains in operation.

1972 In-Channel and Asphalt Plant Approval – In 1972, the County approved ZF #1901 (Planning Commission, January 18, 1972) to allow for the addition of an asphalt batch plant. In 1992, the County approved ZF #ZA736 (Planning Commission, April 15, 1992), amending ZF #1901 to allow for the addition of storage silos to the existing asphalt batch plant. From approximately 1971 to 1980, Solano mined and processed aggregates extracted from the Cache Creek channel pursuant to ZF #1541 and ZF #1901.

1978 Off-Channel Approval – In 1978, Solano applied for its first off-channel mining permit to excavate gravel from the terrace deposits south of the Cache Creek channel. Later that year, following preparation of an Environmental Impact Report (EIR), the County approved Mining Permit and Reclamation Plan No. ZF #2859 (Planning Commission, August 16, 1978) to allow for off-channel mining and reclamation on 100-acres, with reclamation to row-crop production on property referred to as the "Hutson parcel" (currently a portion of Phase I to be reclaimed under existing entitlements). Mining of the 100-acre off-channel Hutson parcel was ultimately completed in 1995 and the parcel was substantially reclaimed to agriculture. Row crop farming occurred through 2016 at which point the operator placed additional A-, B-, and C-horizon soils and farming ceased. The parcel has remained fallow until recently. Agricultural leveling of the field occurred in Summer of 2022 and crops were planted in December 2022. Final reclamation sign-off will occur as a part of completion of reclamation under the current active mining and reclamation permit (ZF #95-093).

1980 In-Channel Approval – In 1979, shortly after County approval of Mining and Reclamation Permit ZF #2859 allowing for off-channel mining on the Hutson parcel, the County adopted the In-Channel Interim Mining Regulations (1979 Regulations) that regulated the removal of aggregates from the channel of Cache Creek. In 1980, following preparation of an EIR evaluating in-channel mining impacts, the County approved Use Permit ZF #G-2 (Planning Commission, October 29, 1980) to allow for the continuation of in-channel mining on 266 acres with reclamation to a streamway. Operation of the then existing Solano aggregate processing plant was not affected by the issuance of ZF #G-2. Solano continued in-channel mining from approximately 1980 to 1995 pursuant to this permit, but less frequently and less intensively than had occurred in years prior.

1995 Short-Term Off-Channel Approval – In 1994, the County Board of Supervisors adopted Resolution No. 94-73, adopting a conceptual framework of goals and objectives for the development of the OCMP and CCRMP, including the Off-Channel Surface Mining Ordinance (Mining Ordinance) to be contained in the OCMP. The OCMP and CCRMP were resolved to be developed in recognition of the need to accommodate a shift in emphasis from in-channel to off-

channel mining. The Board of Supervisors also adopted County Resolution No. 94-82 to allow processing of short-term off-channel mining applications during the period of development of the OCMP.

Meeting the eligibility criteria to file a short-term permit application pursuant to County Resolution No. 94-82, Solano submitted application for an off-channel mining project on the “Farnham West parcel” (currently the eastern portion of Phase 1 to be reclaimed under existing entitlements). In 1995, following preparation of an EIR, the County approved Mining Permit and Reclamation Plan No. ZF #94-065 (Board of Supervisors, September 5, 1995) to allow for short-term, off-channel mining on 35 acres over a three-year period with reclamation to agricultural row-crop production as well as continued operation of the processing and batch plants. This permit also included an amendment to ZF #2859 to expand the area reclaimed to row-crop production. Mining of the Farnham West parcel was completed in approximately 1996 and the parcel was substantially reclaimed to agriculture. Row crop farming occurred through 2016 at which point the operator placed additional A-, B-, and C-horizon soils and farming ceased. The parcel has remained fallow until recently. Agricultural leveling of the field occurred in Summer of 2022 and crops were planted in December 2022. Final reclamation is a component of the current active mining and reclamation permit (ZF #95-093).

1996 Long-Term Off-Channel Approval – In 1995, in parallel with the County’s development of the OCMP and CCRMP, Solano submitted a long-term mining permit application which ultimately formed the basis for the overall footprint of the existing Cache Creek mine. In 1996, following preparation of a project EIR (1996 EIR)⁵ that tiered off of the program-level EIRs for the OCMP and CCRMP, the County approved Long-Term Off-Channel Mining and Reclamation Permit No. ZF #95-093 and Development Agreement No. 96-287 (Board of Supervisors, November 25, 1996) to allow off-channel mining on ±586 acres over a 30-year period with reclamation of ±686⁶ acres⁷ to permanent lakes, habitat, tree-crop production, row-crop production, slopes, and roads.

As part of these approvals, the County rescinded the prior Mining and Reclamation Permit Nos. ZF #2859 and ZF #94-065 for the Hutson parcel and Farnham West parcels, respectively. Solano also relinquished its rights for aggregate extraction within the active channel of Cache Creek upon commencement of mining under the new off-channel entitlements.

Prior vested approvals for various plant facilities remained intact (November 13, 1996, Planning Commission Staff Report, “Status of Processing Plant”, page 16, and Condition #1 of Board of Supervisors Minute Order No. 01-126, approved April 22, 2001); however, Conditions 12, 14, 19, and Development Agreement Section 2.2-10 (Cessation and Reclamation of Plant/Facilities Sites) require the plants to cease operation and the plant site to be reclaimed in accordance with

⁵ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

⁶ At the time this acreage did not include the 30-acre plant site.

⁷ The 100-acre difference in the total area approved for mining and total area approved for reclamation is attributable to the 100-acre portion of Phase 1 (the “Hutson parcel”) where mining was completed in 1995 but had not yet been reclaimed to agriculture. As part of the approval of ZF #95-093 in 1996, the County rescinded the mining rights for the 100-acre Hutson parcel because mining was completed, and merged the reclamation requirements into the 1996 approval.

the CCAP⁸ at the end of the permit period, unless additional mining approvals are subsequently granted by the County.

At this time, the plant facilities include the following:

- Aggregate Processing – The aggregate processing plant, consisting of equipment for crushing, screening, washing, and sorting, was permitted in 1971 (ZF #1541).
- Asphalt Concrete – The batch plant was permitted in 1972 (ZF #1901) and the storage silos were permitted 1992 (ZF #ZA736). The asphalt facilities are operated by Vulcan under lease to CEMEX.
- Ready-Mix Concrete – The plant moved from Madison in 2001 pursuant to an amendment to the Development Agreement (ZF #2000-087). The concrete plant is operated by the Ready-Mix Division of CEMEX.

Shortly thereafter, the County issued Flood Hazard Development Permit ZF #96-070 (Director approval, December 16, 1996) in accordance with Section 8-3.401 of County Code that requires a permit for activity (i.e., the approved off-channel mining permits) in the FEMA Flood Zone “A” designation.

1998 Minor Modification – In 1998, the County approved a minor amendment to Long-Term Off-Channel Mining Permit No. ZF #95-093 (Board of Supervisors, June 16, 1998) to modify Condition of Approval No. 66 to allow for an extension of time to construct required road improvements.

2001 Permit Amendment – In 2001, the County approved amendment ZF #2000-087 (Board of Supervisors, May 22, 2001), to allow for relocation of a concrete batch plant from its previous location in the town of Madison to the existing on-site aggregate processing facility located north of Phase 2. This action included a Lot Line Adjustment that moved the concrete batch plant portion of the Phase 2 parcel to the Plant Site parcel.

2003 Permit Amendment – In 2003, the County approved amendment ZF #2002-127 (Board of Supervisors, April 15, 2003) to rename and reverse the order of Phases 4 and 6. Then Phase 4 was renumbered to Phase 6, and then Phase 6 was renumbered to Phase 4. This allowed mining to proceed south before it proceeded east (as depicted in Attachment E of the 2003 action).

2014 Minor Modification – In 2014, the County approved ZF #2013-0003 (Director approval, March 12, 2014) as a minor modification to the reclamation plan for ZF #95-093 to clarify the reclamation boundary and end use of the aggregate processing plant site. The 2014 approval identified agriculture as the end use for the plant site and incorporated the plant site area into the overall reclamation plan as a minor modification to the original reclamation plan. All regulatory requirements, permit terms, conditions of approval, and development agreement commitments continued to apply, unchanged. This increased the total area of reclamation under the current

⁸ The 2014 Minor Modification (summarized below) resulted in a change to the approved reclamation plan to specifically integrate reclamation of the plant site to agricultural uses.

permit from ±686 acres to ±716 acres (assuming ±30 acres for the plant site area). This action was necessary in response to the September 5, 2012, California Department of Conservation “Lead Agency Review” of Yolo County and resulted in the State combining the plant site with the rest of the operation, into one state mine identification number.

2014 Notice of Violation – On May 30, 2014, the County issued a Notice of Violation to CEMEX for deviating from the spatial pattern of mining as shown on the approved mining plan (ZF #95-093). Staff determined that mining was being undertaken in one contiguous wet pit instead of in several individual pits as per the approved mining plan. On August 15, 2014, the County issued CEMEX a Correction Plan, which outlined steps to bring the operation into compliance and to remove the violation. The Correction Plan required CEMEX to submit an application for a Minor Modification pursuant to Off-Channel Surface Mining Ordinance Section 10-4.604. On September 15, 2014, CEMEX submitted the application for a Minor Modification, including a detailed summary and exhibits of their then-current mining activities.

2015 Minor Modification – In 2015, the County approved ZF #2014-0039 (Intergovernmental Relations Manager approval, May 13, 2015) as a minor modification to the mining plan for ZF #95-093 to resolve the 2014 Notice of Violation. In approving this modification, the County determined that CEMEX could continue mining with the existing dredge in the current configuration in the open phases without impacts to public health and safety, or slope stability.⁹ The minor modification stipulates that CEMEX will not mine the alluvial separators between Phases 5 and 6, and will not carry out wet mining in (then) Phase 5 (now Phase 6 based on the May 10, 2022, minor modification approval described below) until it demonstrates that the alluvial separators between Phases 3 and 4 have been re-established.

2016 County Inspection Follow-up – During a County staff inspection on December 5, 2016, as part of the required annual reporting, staff identified in a letter dated December 23, 2016, a number of operational concerns related to: 1) fencing; 2) location of stockpiles within 200-foot setback and need for erosion control seed cover; 3) stockpile signage; 4) analysis of stockpiles for residual pesticides and herbicides; 5) height of stockpiles exceeds 40 feet; 6) steepness of wet pit slopes; 7) steepness of dry mining slopes; 8) excavation beyond approved mining area north of Phases 3 and 4; 9) erosion of backfill along north side of Orrick Pit 2; and 10) ongoing mining in Phase 2 and use of site as extension of plant site.

In a response dated January 11, 2017, the applicant committed to a series of actions to resolve each item. Regarding item 10, CEMEX had partially mined Phase 2, just south of the plant site, and was using a portion of the pit for storage of partially processed material (i.e., pea gravel). The phasing plan described in the 1996 FEIR called for Phase 2 to be completely mined and then reclaimed to agriculture prior to mining in subsequent phases. CEMEX requested, and County staff agreed, to resolve this inconsistency in phasing and use of the Phase 2 pit via the subject

⁹ In explanation of the activities that resulted in the 2014 Notice of Violation, at the time of permit approval in 1996, the prior operator (Solano) operated using scrapers, dozers, draglines, and excavators. However, in 2005, Rinker Materials (Solano’s successor and the operator at the time), implemented the use of an electric floating dredge. The dredge requires a continuous pond to move from one area to the next; therefore, the alluvial separators between the individual pits had been mined (inconsistent with the approved mining plan) to allow for operation of the dredge.

proposed permit amendment. Since that time, no further mining has occurred in Phase 2. The applicant proposes to use the eastern 31.9 acres of Phase 2 for product stockpiling and construction materials recycling. This is described further later in this chapter.

2017 Stipulated Order to Comply – On June 2, 2017, CEMEX and Yolo County executed a Stipulated Order to Comply (Order). This 2017 Order resulted from a County determination of the California Surface Mining and Reclamation Act (SMARA) violations on the site.

Two compliance issues were identified in the 2017 Order: 1) CEMEX mined beyond the approved limits at several locations along the northern boundary (i.e., north of Phase 3 (Orrick Pit 2) and north of Phase 4 (Snyder West)); and 2) the backfill along the north side of Orrick Pit 2 in Phase 3 experienced pit side slope erosion and failure, resulting in drainage into the pit. CEMEX remedied item #1 by undertaking a property survey in January 2018 to install grade stakes in areas that may have been overmined and placing backfill on the north side of Phases 3 and 4 where any encroachments onto the 200-foot Cache Creek setback had occurred. The County signed off on this in July 2018. For other areas that were overmined outside the 200-foot Cache Creek setback, CEMEX was required to submit an application for a formal amendment to its mining and reclamation plans to incorporate these areas. A component of the subject request is to modify the mining and reclamation plans accordingly.

Regarding item #2, the County requested that CEMEX: 1) implement drainage improvements to prevent further erosion and cracking; 2) contour the pit slopes to a 2:1 ratio; and 3) set forth a proposal and timeline to bring the failed areas into conformance with the approved permit. In 2018, the pit side slope and surrounding area were partially regraded to correct the pit-side erosion. In 2019, with County permission, CEMEX installed a rock-swale inlet to allow stormwater water to flow into the riparian depression north of the pit, to further reduce the potential for pit side slope erosion. In 2020, CEMEX re-leveled the upland area between the pit and riparian depression to ensure positive drainage to the rock swale. These installations were verified by the County during the required annual mine inspection.

In November of 2018,¹⁰ the County determined that the CEMEX facility was in substantial compliance with SMARA, the Off-Channel Mining Plan, and Development Agreement No. 96-287 based on resolution of the items described above, and submittal of an application to modify the approved mining and reclamation plans to reflect proposed and corrected conditions. The application for the subject proposed project was submitted in February 2018 and, along with other requests of the operator, is analyzed in this Draft SEIR.

2022 Conditions of Concern – In a letter dated April 7, 2022, the County identified three conditions of concern related to the 1996 EIR and related California Endangered Species Act Memorandum of Understanding and Management Authorization (CESA No. 2081-1997-048-2; 2081 MOU) and Conservation easement: 1) Temporary loss of agricultural production in excess of EIR assumptions; 2) gaps in implementation of the; 2081 MOU; and 3) gaps in implementation of the

¹⁰ County of Yolo, 2018. Planning Commission Staff Report for Meeting on November 8, 2018.

2012 easement. The applicant has agreed to several actions that will be monitoring by the County to resolve these matters.

In a letter dated April 22, 2022, the County identified a number of new and continuing operational compliance concerns related to: 1) fencing; 2) record of survey to confirm 200-foot setback; and 3) stockpile signage. The applicant is coordinating with the County to resolve items 1 and 2. CEMEX completed installation of the stockpile signage on June 10, 2022.

2022 Minor Modification – On May 10, 2022, the County approved, by action of the Director, ZF #2022-0037, the following actions and minor changes to the permit: 1) put 110 acres in Phase 1 into productive agriculture; 2) place 50 acres of unmined land south of the Hutson Parcel into permanent agricultural easement; 3) remove Phase 7 from the approved mining area as a part of the subject proposed permit amendment (ZF #2018-0015); and 4) reorder Phase 6 as Phase 5, reorder Phase 5 as Phase 6, and allow dry mining to commence on 20 acres of new Phase 5 while mining is simultaneously occurring in Phase 4.

3.6 COMPONENTS OF THE PROJECT

The applicant requests the following modifications to the existing approvals:

1. Extend Mining – Extend the mining permit by 20 years through 2047 to allow for the continued extraction of aggregate reserves within the approved mining footprint.
2. Increase Total Tonnage – Increase the total production limit over the term of the permit from 32,170,000 tons mined (26,700,000 tons sold) to 53,536,426 tons mined (46,636,119 tons sold) through 2047 (see Table 3-3, CEMEX Tonnage Comparisons).
3. Increase Allowed Area of Simultaneously Disturbed Acreage – Remove the previous analytical assumption in the 1996 EIR restricting the maximum disturbed area at any one time (126 acres¹¹) and allow simultaneous disturbance of larger acreage at any one time consistent with the proposed phasing and operation. The range of actively disturbed¹² land at any one time during the remaining life of the proposed project would range from 167 to 285 acres (see Section 4.1, Agricultural and Forestry Resources).
4. Increase Acreage Used for Processing – Use the eastern half of Phase 2 as an extension of the plant site for stockpiles and construction materials recycling. Use Phase 3 for a new settling pond for deposition of process fines. As a result, reclamation of these areas would not occur until after all mining on the site has been completed (post 2047). Reclamation of all areas would be complete by 2052.

¹¹ 1996 EIR, Draft volume, page 4.5-14.

¹² Section 10-4.429 (Setbacks), subsection (c), of the County Mining Ordinance defines “actively disturbed” areas as those on which mining operations of any kind, or the implementation of reclamation such as grading, seeding, or installation of plant material are taking place.

Table 3-3: CEMEX Tonnage Comparison

	Annual Tons Mined: Base Amount (+) 20% Exceedance^[3] Total	Annual Tons Sold: Base Amount (+) 20% Exceedance^[3] Total	Max Tons Mined (thru year)	Max Tons Sold (thru year)
Approved Tonnages	1,204,819 ^[1,2] <u>240,964^[1,2]</u> 1,445,783 ^[1,2]	1,000,000 ^[1] <u>200,000^[1]</u> 1,200,000 ^[1]	32,170,000 ^[4] (thru 2027)	26,700,000 ^[4] (thru 2027)
Proposed Tonnages	1,149,425 ^[6] <u>229,885</u> 1,379,310	No change	53,536,426 ^[5] (thru 2047)	46,636,119 ^[5] (thru 2047)
Difference	-55,394 <u>-11,079</u> -66,473	No change	+21,336,526	+19,936,119

Source: TSCHUDIN CONSULTING GROUP, January 28, 2023.

Notes:

¹ Board of Supervisors Staff Report, November 25, 1996.

² Approximately 17 percent waste loss assumed in original approvals.

³ Approved/allowed under Mining Ordinance Section 10-4.405.

⁴ Development Agreement No. 96-287, Recital V, third paragraph.

⁵ Table 3-6, CEMEX Tonnage Totals.

⁶ Assumes 13 percent waste loss beginning in 2022 based on actual average.

5. Extend Reclamation – Extend the reclamation date by up to 36 years, in some areas.
6. Remove Phase 7 – Modify the approved mining and reclamation plans to eliminate Phase 7 (15 acres of mining; 21.1 acres of reclamation) located on the west side of I-505. As a result, the modified project would be completely to the east of I-505.
7. Other Modifications to Approved Mining Plans – These proposed changes would: a) modify phase boundaries; b) comport all approvals over the years to one conformed set of mining and reclamation plans; c) incorporate areas previously overmined as required by the 2017 Stipulated Order to Comply; and d) reflect existing conditions at the mining and processing areas (see Figure 3-3, Approved Overall Mining Plan; Figure 3-4, Approved Mining Phases; Figure 3-5, Proposed Overall Mining Plan; Figure 3-6, Proposed Mining Phases; Appendix C, Proposed Mining Plan Sheets).
8. Other Modifications to Approved Reclamation Plans (Plan Sheets, Narrative, and Habitat Restoration Plan) – These proposed changes would: a) comport all approvals over the years to one conformed set of reclamation plans and one updated complete Habitat Restoration Plan (HRP); b) add other areas (totaling 100 acres) previously disturbed by mining that were not included within the original reclamation area boundaries; and c) decrease reclaimed agriculture by ±57 acres, increase reclaimed open water lake by 51 acres, decrease reclaimed tree crops by 138 acres, and increase reclaimed row crops by 111 acres (see Figure 3-7, Approved Overall Reclamation Plan; Figure 3-8, Proposed Overall Reclamation Plan; Figure 3-9, Mining and Reclamation Area Comparison; Appendix D, Proposed Reclamation Plan Sheets; Appendix E, Proposed Reclamation Narrative and Habitat Restoration Plan).

9. Modify Various Conditions of Approval – These proposed changes would integrate all previously approved conditions and include modifications to the conditions to reflect the proposed project as approved.
10. Amend the Development Agreement – These proposed changes would reflect the project as approved (including the extended permit period, and modified mining and reclamation plans) and describe modified/expanded net gains dedications and contributions.

Table 3-4 provides a summary of Mining and Reclamation by Phase comparing what is approved with what is requested as a part of this project proposal. Table 3-5 provides a history of phase changes overtime.

Increase in Total Production Limit

The annual production for the mine is currently limited to 1,204,819 tons mined (1,000,000 tons sold). Pursuant to Section 10-4.405 of the Mining Ordinance, the operation has approval to exceed the annual production level by up to 20 percent to 1,445,783 tons mined (1,200,000 tons sold) in any one year, so long as the running ten-year production average does not exceed 12,048,190 tons mined (10,000,000 tons sold). Under no circumstances may annual production exceed 1,445,783 tons mined (1,200,000 tons sold). This limit does not apply to recycled waste material or aggregate obtained from in channel maintenance work performed in accordance with the CCAP. The project proposes no change to these annual tonnage limits.

Existing approvals for the project allow for the excavation of a total of 32,170,000 tons mined (26,700,000 tons sold) of sand and gravel, based on an assumption of 17 percent wash loss at the aggregate processing plant (that will be directed to settling ponds). The project proposes to increase the total tonnage to be mined over the life of the permit, at the same annual rate of production as originally approved.

Figure 3-3
Approved Overall Mining Plan

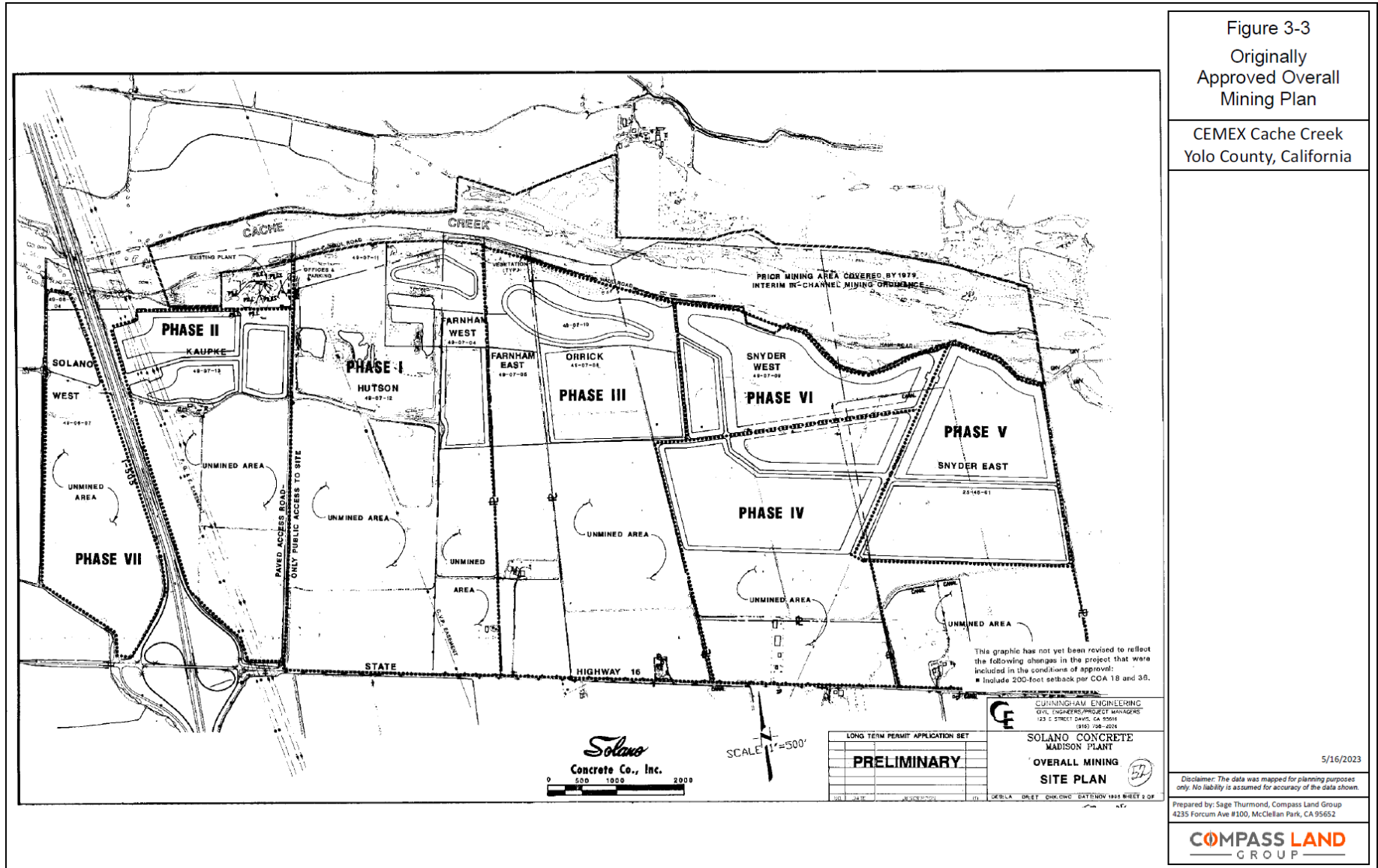


Figure 3-3
 Originally
 Approved Overall
 Mining Plan

CEMEX Cache Creek
 Yolo County, California

This graphic has not yet been revised to reflect the following changes in the project that were included in the conditions of approval:
 • Include 200-foot setback per COA-18 and 3d.

CUMMINGS ENGINEERING
 CIVIL ENGINEERS/PROJECT MANAGERS
 123 C STREET DAVIS, CA 95616
 (916) 758-0014

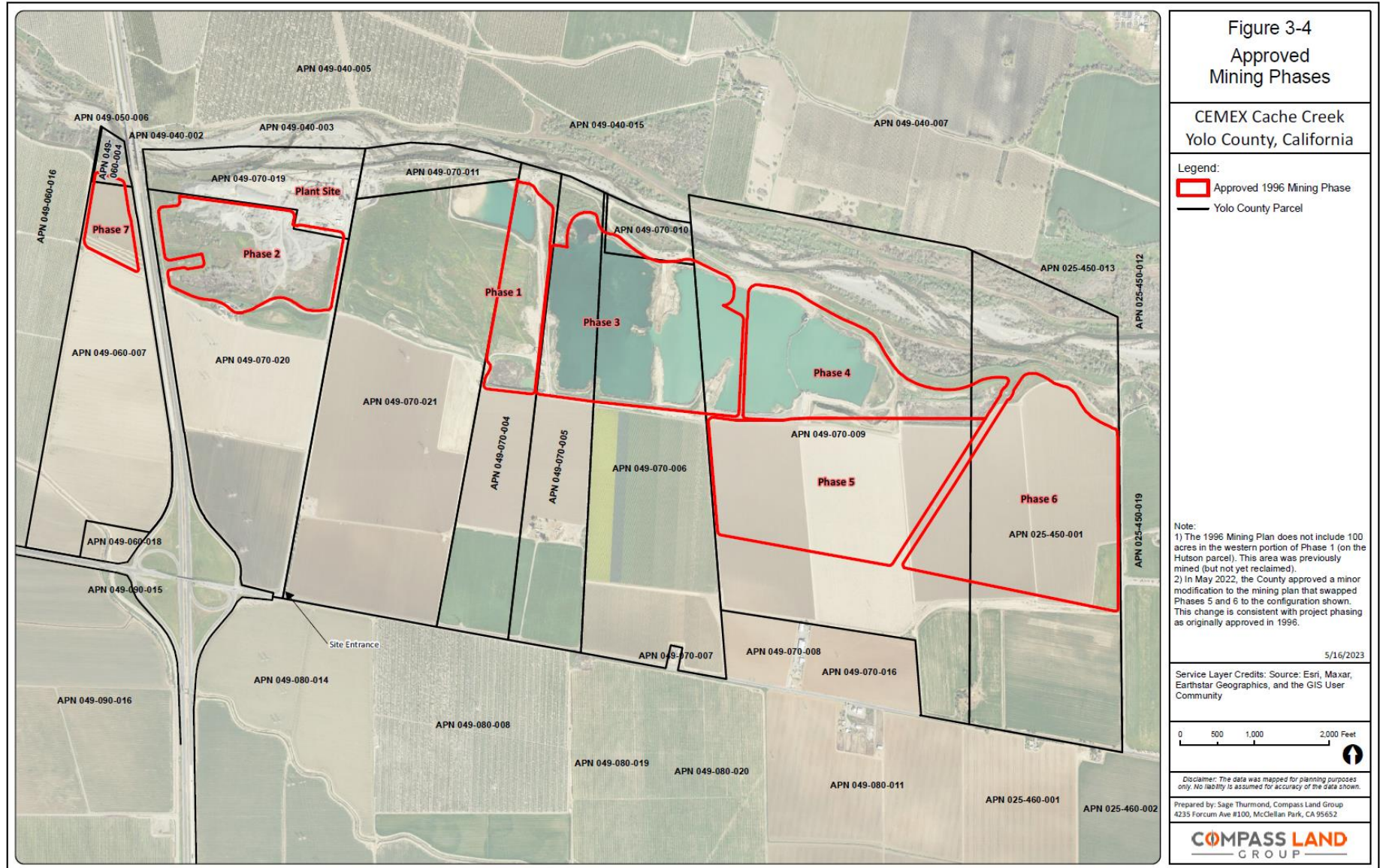
SOLANO CONCRETE
 MADISON PLANT
 OVERALL MINING
 SITE PLAN

5/16/2023

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Prepared by: Sage Thurmond, Compass Land Group
 4235 Forcum Ave #100, McClellan Park, CA 95652

**Figure 3-4
Approved Mining Phases**



**Figure 3-5
Proposed Overall Mining Plan**

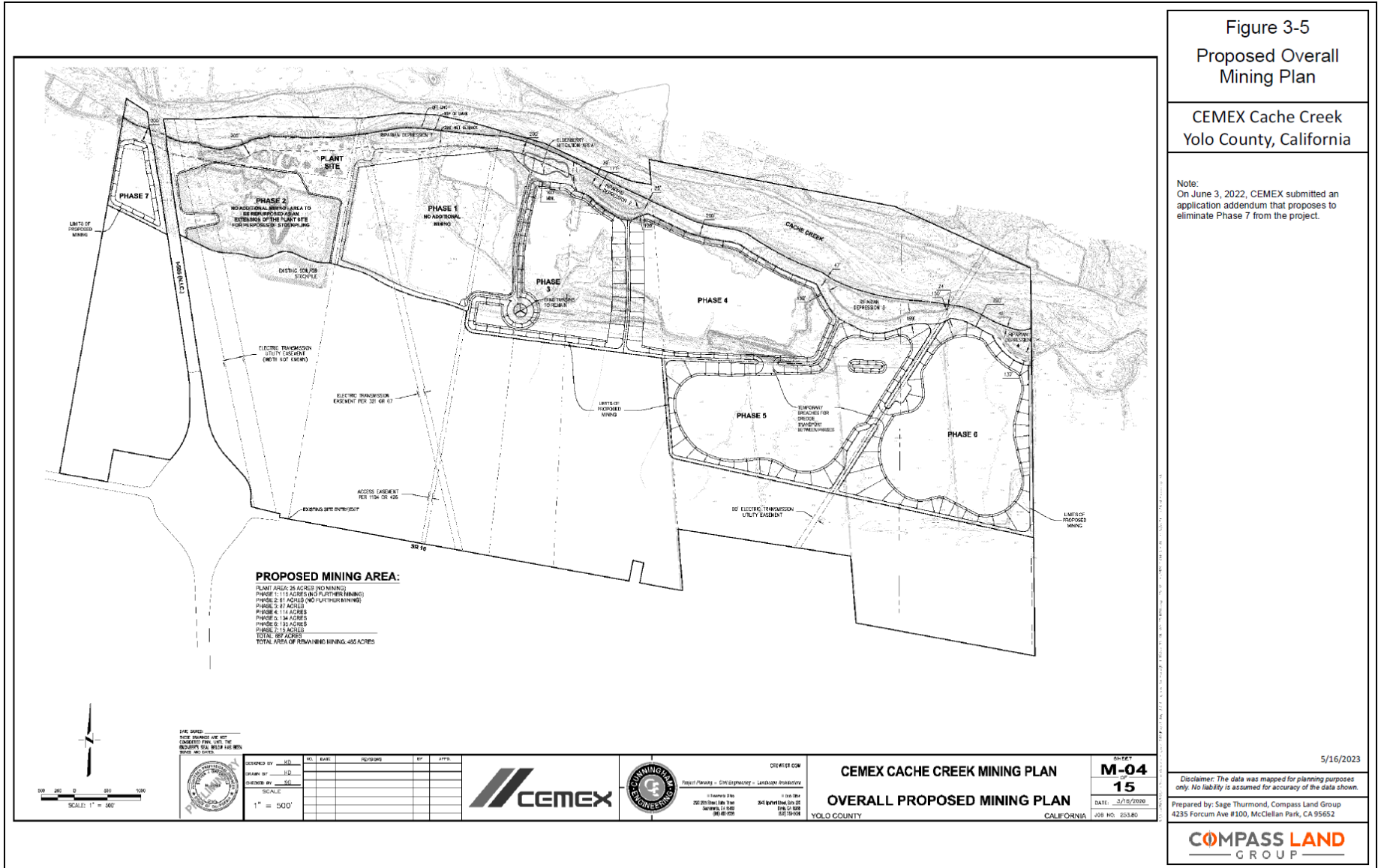


Figure 3-5
Proposed Overall Mining Plan

CEMEX Cache Creek
Yolo County, California

Note:
On June 3, 2022, CEMEX submitted an application addendum that proposes to eliminate Phase 7 from the project.

5/16/2023

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave #100, McClellan Park, CA 95652



**Figure 3-6
 Proposed Mining Phases**

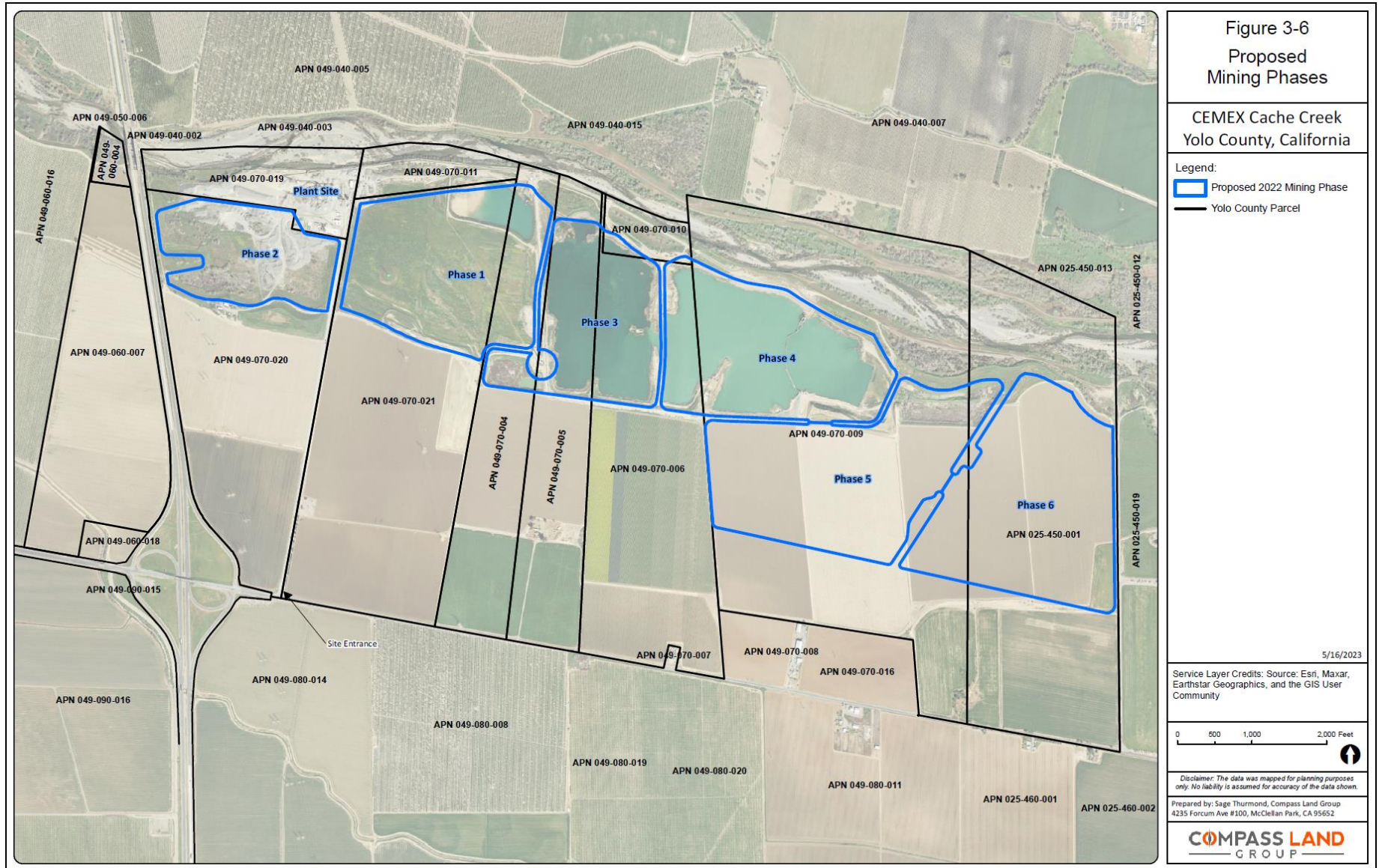


Figure 3-7
Approved Overall Reclamation Plan

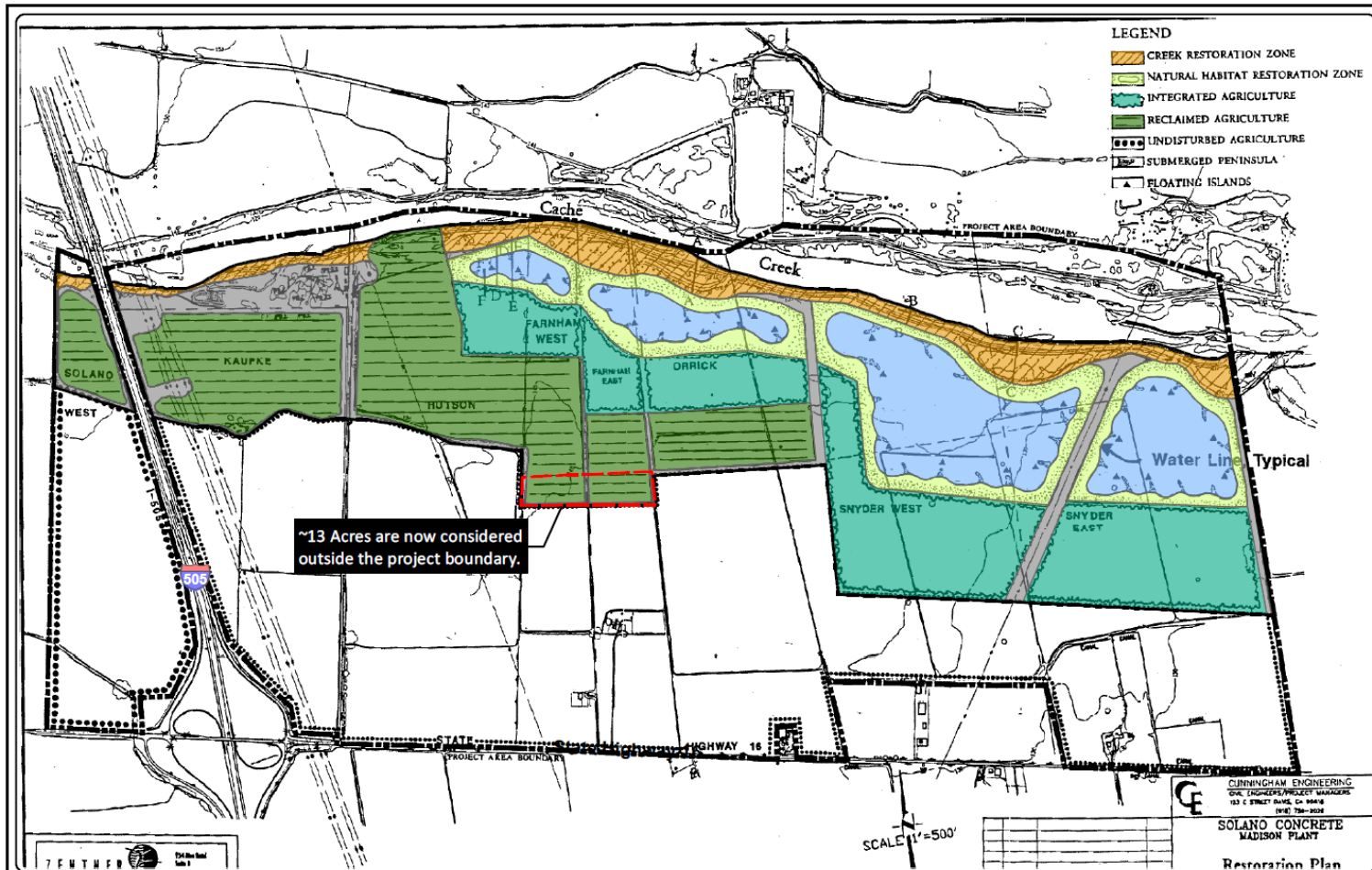


Figure 8 Restoration Plan, Solano Concrete, Zentner and Zentner, October 1995.

<ul style="list-style-type: none"> ☐ Restoration Plan (849.5 Acres) ☐ Creek Restoration Zone (74.5 Acres) ☐ Natural Habitat Restoration Zone (91.2 Acres) ☐ Integrated Agriculture (222.2 Acres) ☐ Reclaimed Agriculture (235.7 Acres) ☐ Open Water (146.2 Acres) ☐ Unclassified (79.7 Acres)
--

Approved Overall Reclamation Plan
 CEMEX Cache Creek
 Yolo County, California

Figure 3-7 4/7/2023

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.



**Figure 3-8
Proposed Overall Reclamation Plan**

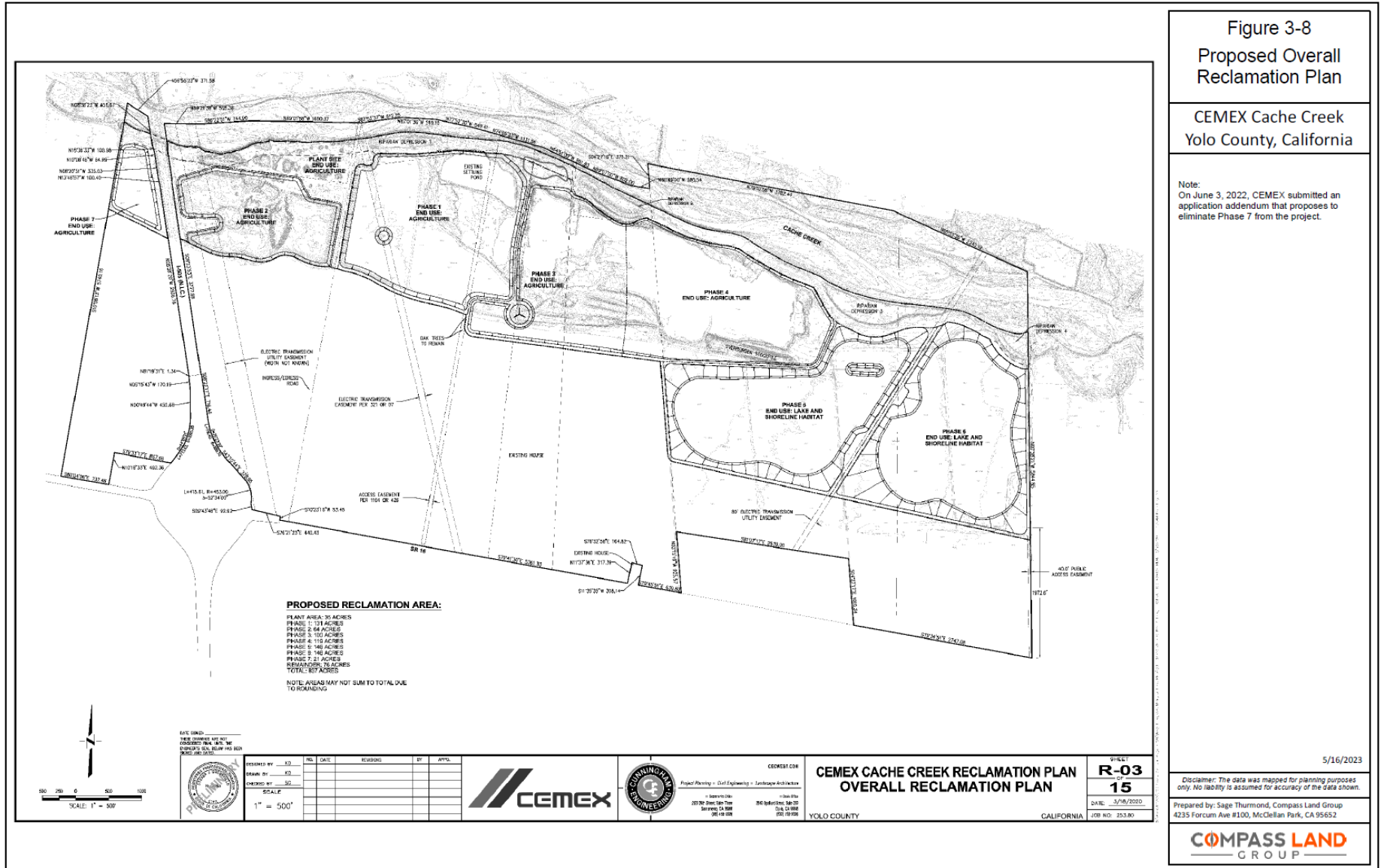


Figure 3-8
Proposed Overall
Reclamation Plan

CEMEX Cache Creek
Yolo County, California

Note:
On June 3, 2022, CEMEX submitted an
application addendum that proposes to
eliminate Phase 7 from the project.

5/16/2023

Disclaimer: The data was mapped for planning purposes
only. No liability is assumed for accuracy of the data shown.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave #100, McClellan Park, CA 95652



Figure 3-9
Mining and Reclamation Area Comparison

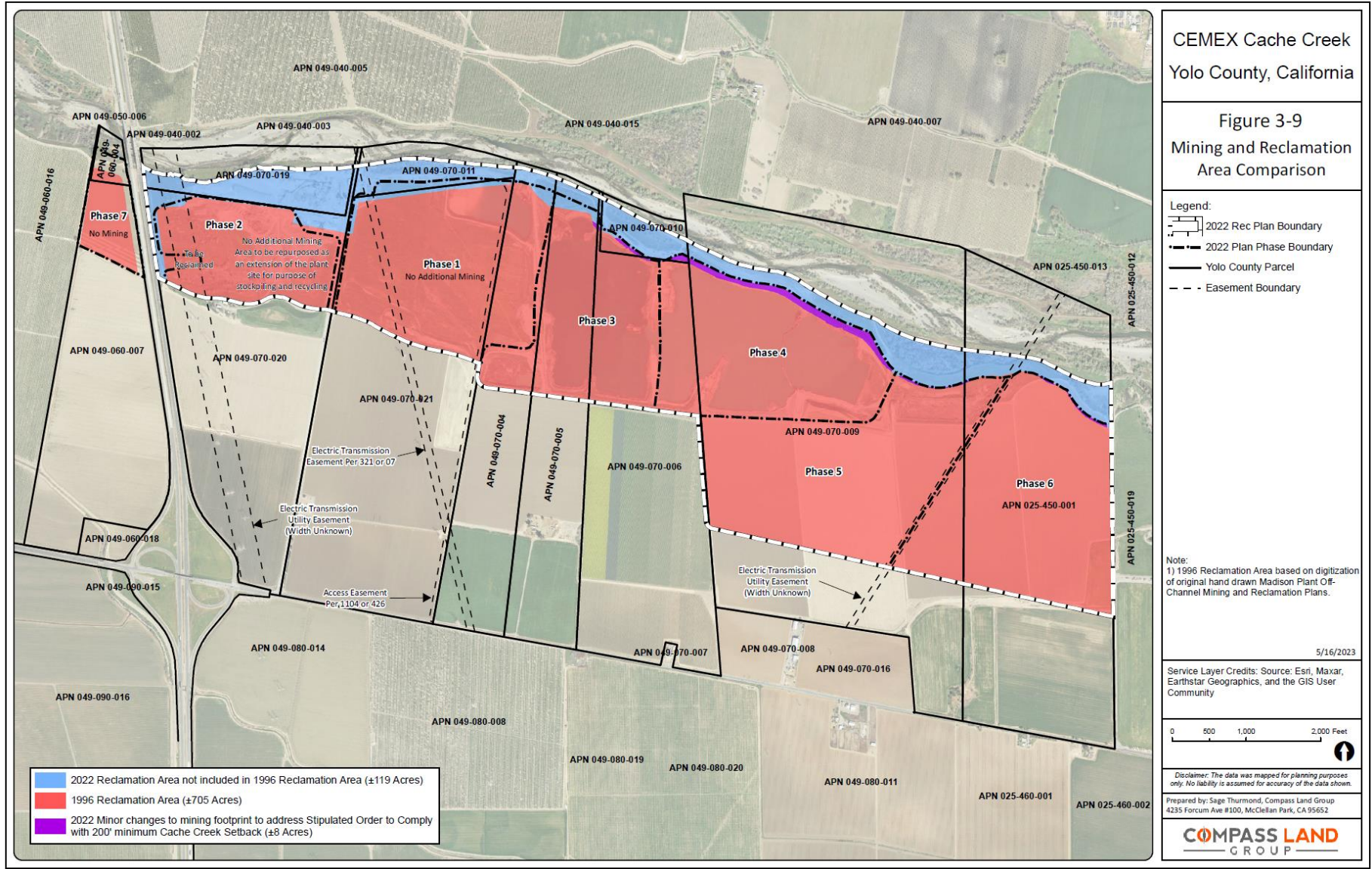


Table 3-4: Mining and Reclamation by Phase

Proposed Project Phase #	1996 Acres in Phase ^[1]	1996 Mining End Date ^[2]	1996 Reclamation End Date ^[2]	Proposed Acreage		Proposed Mining End Date	Proposed Reclamation End Date ^[19]	Change in Reclamation Acres	Change in Mining End Date (in years)	Change in Reclamation End Date (in years)
				Mining ^[6]	Reclamation ^[14]					
1 (Hutson + Farnham West)	140 ^[3]	1998	2002	116 ^[7]	131 ^[7]	N/A ^[13]	2025 ^[20]	-9 ^[7]	N/A	+23
2 (Kaupke) A (west) B (east)	64	2004	2012	61 ^[8]	64	N/A	2026 (west) 2048 (east)	0	N/A	+14 (west) +36 (east)
3 (Orrick + Farnham East)	129	2011	2017	87 ^[9]	100 ^[9]	2023	2048	-29 ^[9]	+12	+31
4 ^[17] (portion of Snyder West)	84	2016	2021	114 ^[10]	119	2024	2039	0	+8	+18
5 ^[22] (portion of Snyder West)	119	2026	2031	134 ^[12]	146	2033 2047 ^[21]	2034 2048 ^[21]	+62	+7 to +21	+3 to +17
6 ^[18] (Snyder East)	134	2022	2026	135 ^[11]	146 ^[11]	2047	2048	+12 ^[11]	+25	+22
7 ^[23] (Solano) Plant	15 30	2026 N/A	2029	0 N/A	0 35	N/A N/A	N/A 2048	-15 +5	0 N/A	0 +19
Other	N/A	N/A	N/A	N/A	76 ^[15, 16]	N/A	2048	+76	N/A	N/A
Total	716^[4]	2026^[5]	2031	647	816	2047	2048	+102^[16]	+21	+17

Source: TSCHUDIN CONSULTING GROUP, January 28, 2023.

Notes:

¹ 1996 Development Agreement (as modified May 22, 2001 and April 15, 2003), pdf page 7 and 183. Note these acreages differ from 1996 EIR, Draft volume, page 3-13 for phases: 2, 3, 5, and 6 with acreage for each being 1 to 6 acres lower in the Development Agreement, for a total difference of -12 acres in the development agreement.

² 1996 EIR, Draft volume, page 3-18. These dates were assumed in the EIR. Based on date of actual approval, these dates were all off by one year. The permit expires August 11, 2027.

³ Includes 100-acre Hutson parcel that was mined under a prior approval but not yet reclaimed.

⁴ 30-acre plant site not included in original total acreage.

⁵ Reflects EIR assumption. Based on date of actual approval, these dates were all off by one year. The permit expires August 11, 2027.

⁶ See Figures 3-10, 3-11, and 3-14 through 3-17.

⁷ There is no further mining proposed in Phase 1. This reflects a decrease of 24 acres within the mining boundary and 9 acres within the reclamation boundary due primarily to proposed revisions to the phase boundary for Phases 1 and 3. The proposed mining plan absorbs the southern end of the Farnham West (current Phase 1) parcel as part of proposed Phase 3. In addition, the proposed mining plan corrects for minor discrepancies found in the original mining plan, including an approximately 2 acre overlap at the Phase 1 and Phase 3 boundary. Also, the proposed Mining Plan, (on Sheet M-05), does not accurately represent the 1996-approved Mining Plan “top of slope” area – it is depicted smaller than what was actually approved in 1996. See Figure 3-9.

⁸ There is no further mining proposed in Phase 2. This reflects a decrease of 4 acres within the mining boundary due to proposed minor boundary adjustments in the mining plan to better reflect existing mining disturbances. See Figure 3-11.

⁹ There is no further mining proposed in Phase 3. This reflects a decrease of 46 acres within the mining boundary and 29 acres within the reclamation boundary due primarily to proposed revisions to the phase boundary for Phases 1 and 3, and Phases 3 and 4. The proposed mining plan absorbs the southern end of the Farnham West parcel (current Phase 1) as part of proposed Phase 3, and shifts the eastern boundary of Phase 3 to the west to match the alignment of an existing north-south trending alluvial separator that was recently

completed to support the use of Phases 3 as a settling pond. The proposed mining plan also includes other minor boundary adjustments to better reflect existing mining disturbances, particularly along the northern boundary of the mining phase where no further mining will occur. See Figure 3-14.

¹⁰ Decrease of 5 acres within the mining boundary due primarily to proposed revisions to the phase boundary. The proposed mining plan shifts the western boundary of Phase 4 to the west to match the alignment of the existing north-south trending alluvial separator. In addition, the proposed mining plan shifts the eastern boundary of Phase 4 to the west in the area that will be backfilled for reclamation to agriculture. Also, the proposed mining plan includes other minor boundary adjustments to better reflect existing mining disturbance. See Figure 3-15.

¹¹ Increase of 12 acres within the reclamation boundary because proposed reclamation plan includes oak and other habitat restoration to the north and around the perimeter edges of the mining disturbance area that are accounted for as part of Phase 6 reclamation.

¹² Increase of 51 acres within the mining boundary and 62 acres within the reclamation boundary due to proposed minor boundary adjustments. The proposed mining plan creates a new Phase 5 boundary that encompasses a portion of Phase 4 (with the 2003 phase change) and all of the area to the west of the major electric transmission utility easement that will be reclaimed to a lake. The proposed mining plan also includes other minor boundary adjustments for current design purposes, such as accommodation of drainage rip-rap run-downs from the electric easement area. See Figure 3-16.

¹³ Mining on the Hutson parcel concluded in 1995. Mining on the Farnham West parcel concluded in 1996.

¹⁴ See Table 3-7

¹⁵ Other disturbed acreage in buffers and setbacks proposed to be added to reclamation plans.

¹⁶ Total is off slightly due to rounding.

¹⁷ Analyzed as Phase 6 in original 1996 approval (see Table 3-5).

¹⁸ Analyzed as Phase 5 in original 1996 approval (see Table 3-5).

¹⁹ Reclamation monitoring will continue for three to five years beyond the anticipated reclamation end date to ensure that reclamation performance standards are met.

²⁰ Phase 1 agricultural plantings (110 acres in barley) were completed December 2022 per tenant farmer. However, existing silt pond in northeast corner of Phase 1 requires fill and planting which is anticipated to occur in 2025.

²¹ The majority of mining in Phase 5 will be complete in 2033. After Phase 6 is mined, the operator will perform limited additional mining in the northern portion of Phase 5 as the conveyor assembly is removed to develop a habitat island as part of reclamation. This work is anticipated to occur in 2047.

²² Analyzed as Phase 4 in 1996, subsequently swapped with Phase 6 in 2003, and later swapped with Phase 5 in 2022. See Table 3-5.

²³ Analyzed as Phase 7 in 1996. Proposed for deletion as a part of the proposed project.

Table 3-5: History of Phase Changes

Proposed Project Phase #	Phase Name	1996 EIR and Approval	2003 Project Modifications	2022 Project Modifications
1	Hutson + Farnham West	1	1	1
2	Kaupke	2	2	2
3	Orrick + Farnham East	3	3	3
4	Snyder West (portion)	6	4	4
5	Snyder West (portion)	4	6	5
6	Snyder East	5	5	6
N/A	Solano	7	7	7
Plant	Plant	Plant	Plant	Plant

Source: TSCHUDIN CONSULTING GROUP, January 28, 2023.

See Table 3-3 for a comparison of tonnage. Table 3-6 below provides total tons over time.

Table 3-6: CEMEX Tonnage Totals

Period (Years) Description	Total Tons Mined	Total Tons Sold
1997 to 2021 (25 years) County Tonnage Records ^[1]	23,651,376	20,636,119
Remaining Approved Tonnage	8,518,624 ^[5]	6,063,881 ^[6]
2022 to 2047 (26 years) Proposed Total Tonnage	29,885,050 ^[3]	26,000,000 ^[4]
Total Tonnage	53,536,426 ^[9]	46,636,119 ^[8]
"New" Tonnage ^[7]	21,366,426	19,936,119

Source: TSCHUDIN CONSULTING GROUP, January 12, 2023.

Notes:

¹ From Yolo County mining records based on mandatory annual operator reports. Actual reported waste loss for 1997 to 2021 averaged 13 percent.

² Deleted.

³ 26 years (2022 through 2047) x 1,149,425 tons mined = 29,885,050 tons mined. Assumes approximately 13 percent waste loss beginning in 2022 based on best available geologic information.

⁴ 26 years (2022 through 2047) x 1,000,000 tons sold per year average = 26,000,000 tons sold.

⁵ 32,170,000 – 23,651,376 = 8,518,624

⁶ 26,700,000 – 20,636,119 = 6,063,881

⁷ Proposed total tonnage beyond that identified and analyzed in 1996 EIR (proposed total tonnage – remaining approved tonnage). Note the CCAP Update FEIR analyzed 166.0 million new tons mined including assumptions for existing land zoned SGRO and the Teichert Shifler application which has since been approved.

⁸ Reflects actual tonnage sold (20,636,119 tons) for 25-year period (1997 to 2021) plus assumed 26.0 mil tons to be sold in future (2022 to 2047). Actual waste loss for 1997 to 2021 averaged 13 percent. Assumed waste loss for 2022 to 2047 is 13 percent based on prior actual average.

⁹ Reflects actual tonnage mined (23,651,376 tons) for 25-year period (1997 to 2021) plus assumed 29,885,050 mil tons to be mined in future (2022 to 2047). Actual waste loss for 1997 to 2020 was 13 percent. Assumed waste loss for 2021 to 2047 is 13 percent based on prior actual average.

Changes to Mining

The applicant proposes to continue to conduct mining in a manner that will allow for concurrent reclamation to be commenced on mined lands that will not be subject to further surface mining disturbances. The first three phases have already been mined but are not yet fully reclaimed. Except where mining has already occurred, mining operations will continue to be initiated by the removal of vegetation, topsoil/growth media, and overburden materials that lie above marketable sand and gravel deposits. The overlying materials will be removed using scrapers aided by a motor grader and bulldozer, or excavator and off-road haul trucks as needed. After overlying materials are removed, marketable sand and gravel will be excavated using conventional mining equipment such as scrapers, excavators, and bulldozers (for dry mining) and electric dredge (for wet mining).

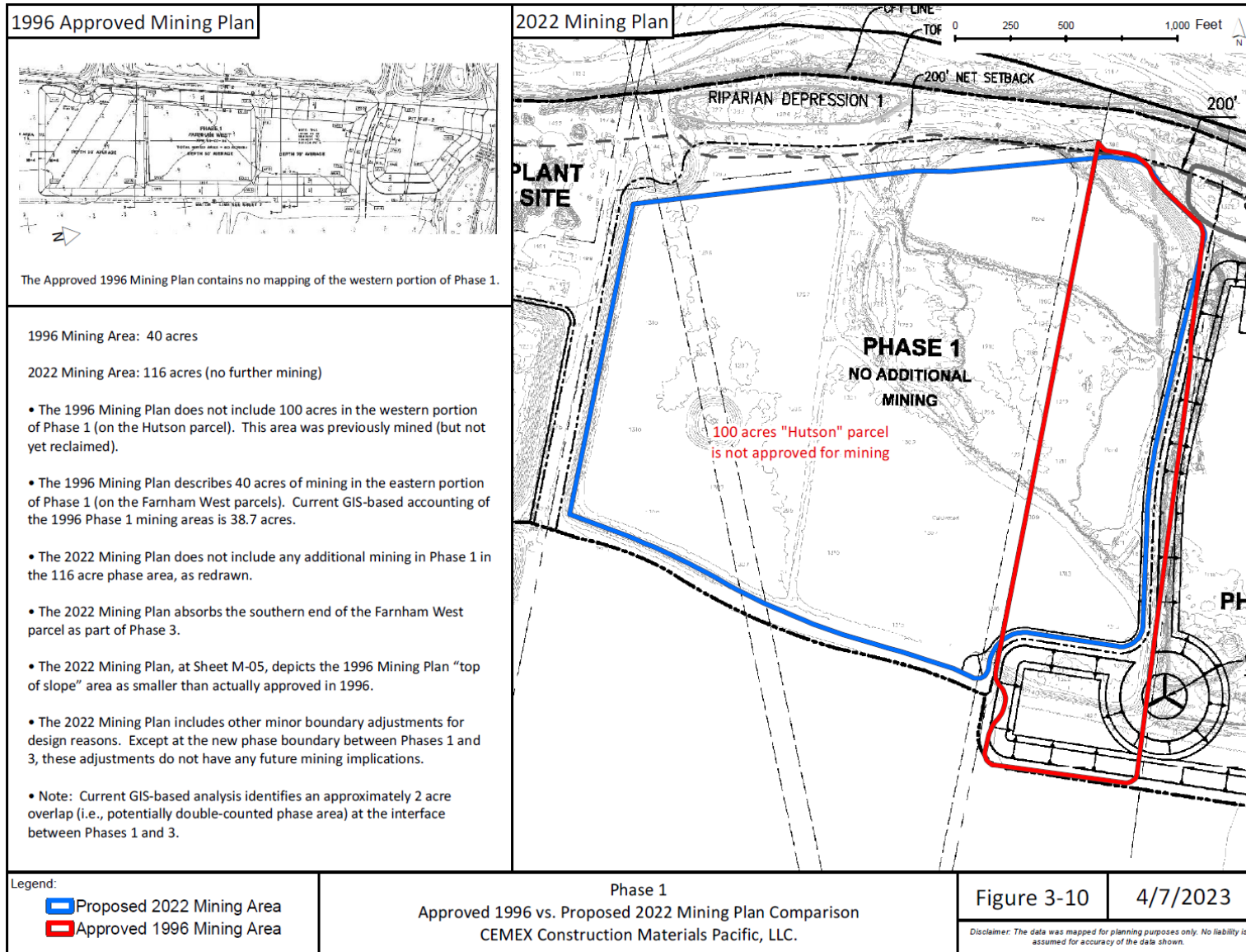
In 2005, the operator installed an electric dredge to replace drag lines as the primary wet mining tool. The operator has indicated that the electric dredge provides a more efficient method of mining across large waterbodies, enables mining to the maximum depth of the sand and gravel resources, and reduces the consumption of diesel fuel (and associated air quality and greenhouse gas emissions). Following excavation, the sand and gravel will be transported primarily by electric conveyor to the existing aggregate processing plant for washing, crushing, sorting, and sale.

Of the originally approved mining footprint of 586 acres (Figure 3-3), plus the Hutson property (100 acres) and the plant site (30 acres), mining has been completed on Phases 1 through 3 totaling 333¹³ acres, leaving 383 acres to be mined in Phases 4 through 6 (Figure 3-4). This reflects the applicant's proposed removal of Phase 7 (15 acres) and other refinements and clarifications as described below:

- For Phase 1 (±116-acres as proposed), no further mining is proposed (Figure 3-10, Proposed Phase 1 Mining Plan Modifications). The applicant is proposing to change the date for final reclamation from 2002 to 2025 to allow for continued reclamation activity on this phase as material is mined from later phases.
- For Phase 2 (±64 acres), no further mining is proposed; the eastern 31.9 acres is proposed to be used for product stockpiling and construction materials recycling utilizing a portable crusher (Figure 3-11, Proposed Phase 2 Mining Plan Modifications; Figure 3-12, Existing and Proposed Stockpiles). Under current approvals Phase 2 was to have been reclaimed in final form by 2012. The western 31.9 acres is proposed to be reclaimed to agriculture by 2026 and the eastern 31.9 acres by 2048 (Figure 3-13, Phase 2 Interim Mining and Reclamation).

¹³ See Tables 3-4, 3-8, and 3-9.

**Figure 3-10
 Proposed Phase 1 Mining Plan Modifications**



**Figure 3-11
 Proposed Phase 2 Mining Plan Modifications**

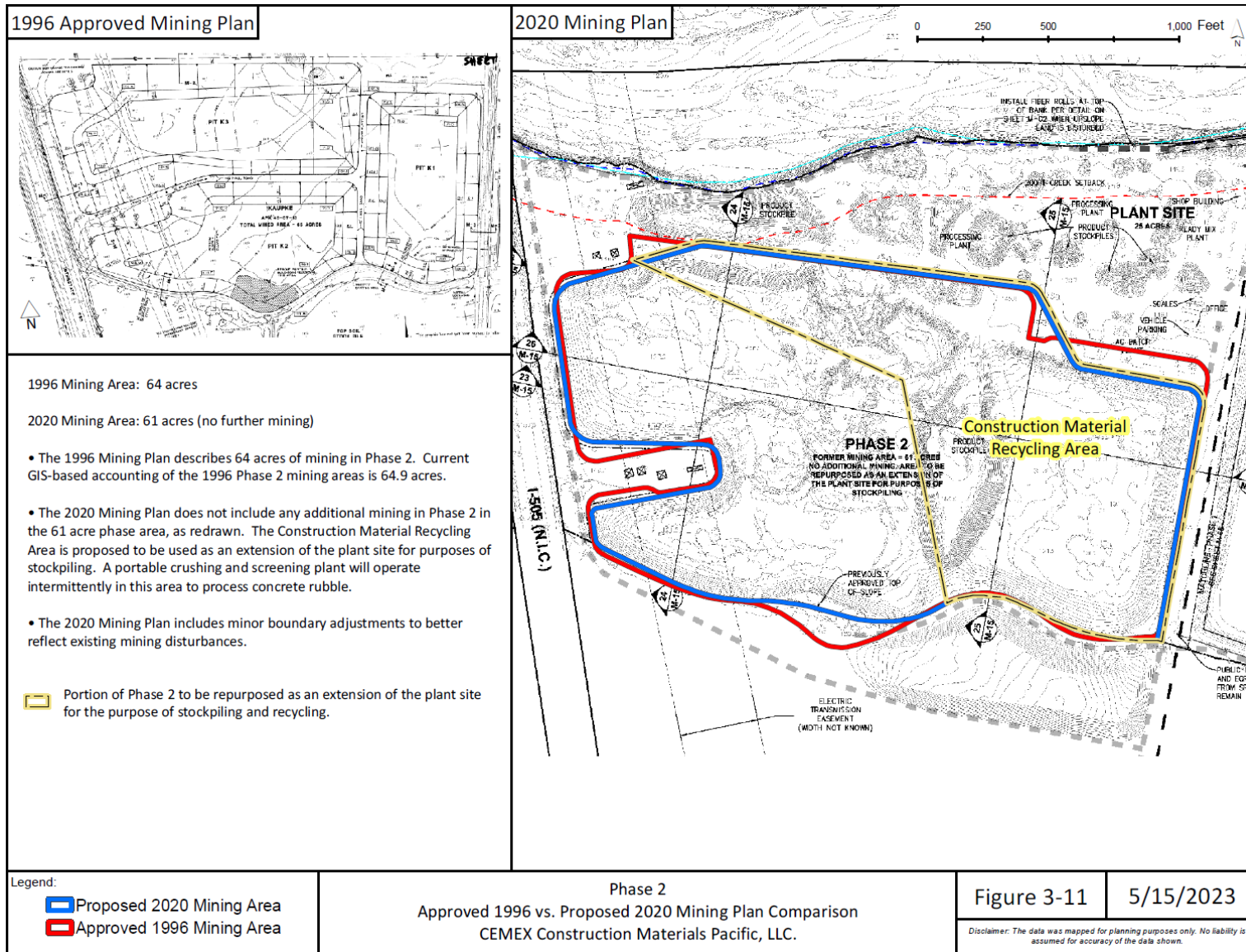
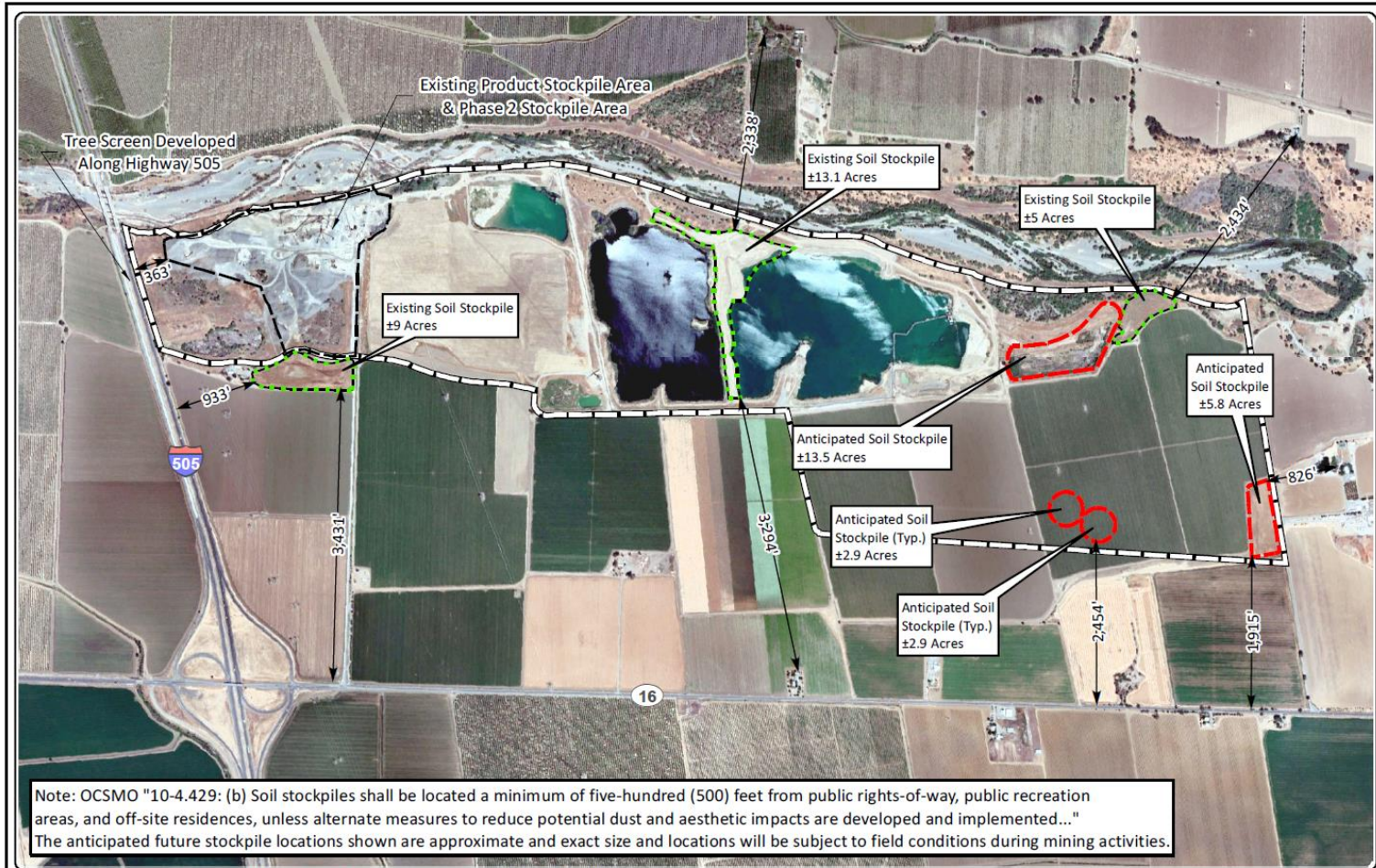


Figure 3-12
Existing and Proposed Stockpile Locations



Google Earth Aerial photograph dated 02/16/2022, stockpiles boundaries based based on review of 02/16/2022 aerial.

- 2022 Rec Plan Boundary
- Existing Product Stockpile Area & Phase 2 Stockpile Area
- Existing Soil Stockpile (±27.1 Acres)
- Anticipated Future Soil Stockpile (±25.0 Acres)

0 550 1,100 2,200 3,300 Feet



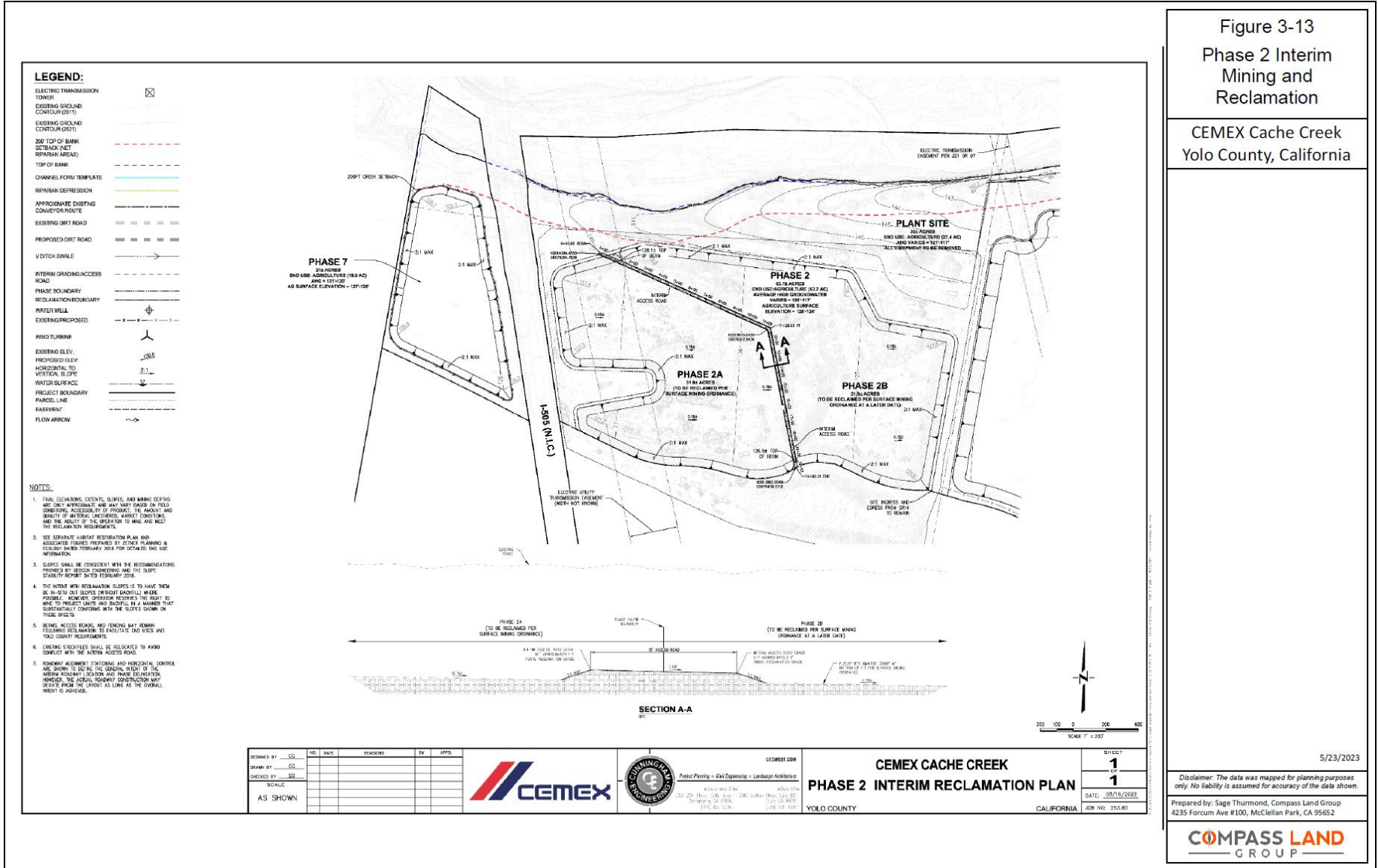
Existing and Proposed Stockpiles
 CEMEX Cache Creek
 Yolo County, California

Figure 3-12 5/30/2023

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.



Figure 3-13
Phase 2 Interim Mining and Reclamation



The applicant proposes modifications to Phases 3 through 6 to promote efficient and continuous operation of existing approved mining (Figures 3-14 through 3-17). Phase 3 and Phase 4 were previously being mined concurrently and were the subject of corrective action which resulted in the 2015 Minor Modification acknowledging overlapping mining in these two phases.

Since that time, mining in Phase 3 has been complete and the required alluvial separator between Phase 3 and 4 has been installed. CEMEX is presently mining only in Phase 4, and recently received approval (ZF #2022-0037) to commence dry mining on 20 acres in Phase 5 (previously Phase 6). Mining commenced in November 2022.

- For Phase 3, modify the mining phase boundary to incorporate the southern end of the Phase 1 Farnham West parcel that was not fully mined, shift the eastern boundary to align with a constructed alluvial separator, and use the phase as a settling pond (to accept and settle process wash fines), resulting in a decrease of ± 42 -acres (from 129 acres to 87 acres) (Figure 3-14, Proposed Phase 3 Mining Plan Modifications). The applicant has indicated the proposed use of Phase 3 as a settling pond will facilitate reclamation backfill to agriculture. The applicant is proposing to change the date for final reclamation from 2017 to 2048 to allow for continued reclamation activity on this phase as material is mined from later phases.
- For Phase 4, modify the mining phase boundary to shift the western boundary to align with a constructed alluvial separator and shift the eastern boundary to reflect an area that will be backfilled and reclaimed to agriculture, resulting in an increase of ± 30 -acres (from 84 acres to 114 acres). While the approved Development Agreement describes the Phase 4 mining area (originally approved as Phase 6, changed to Phase 4 in 2003) as 84 acres, the 1995 mining plan sheets label the mining area as 90 acres (Figure 3-15, Proposed Phase 4 Mining Plan Modifications). The applicant is proposing to change the date for final reclamation from 2021 to 2039 to allow for continued reclamation activity on this phase as material is mined from later phases.
- For Phase 5 (as modified in a Minor Modification (ZF #2022-0037) approved by the Director on May 10, 2022), modify the mining phase boundary resulting in an increase of ± 15 -acres (from 119 acres to 134 acres) (Figure 3-16, Proposed Phase 5 Mining Plan Modifications). While the approved Development Agreement describes the Phase 5 mining area (originally approved as Phase 4, changed to Phase 6 in 2003, then changed back to Phase 5 in 2022) as 119 acres, the 1995 mining plan sheets label the mining area as 126 acres. After Phase 6 is mined, CEMEX proposes to undertake limited additional mining in Phase 5 to develop a small habitat island as part of reclamation (Figure 3-8). Proposed date for final reclamation changed from 2031 to 2034, with the habitat island completed in 2048, following removal of the conveyor assembly.

Figure 3-14
Proposed Phase 3 Mining Plan Modifications

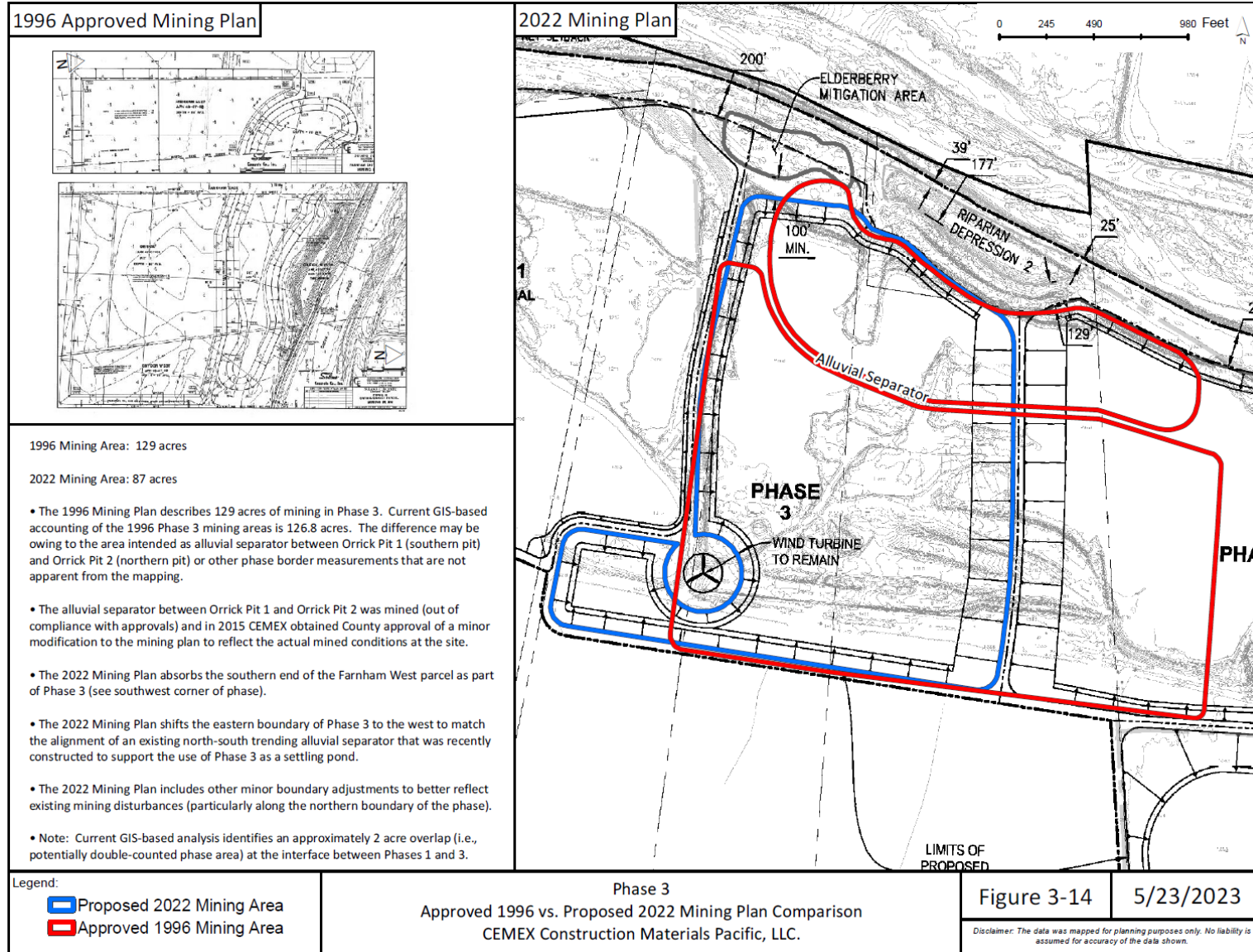
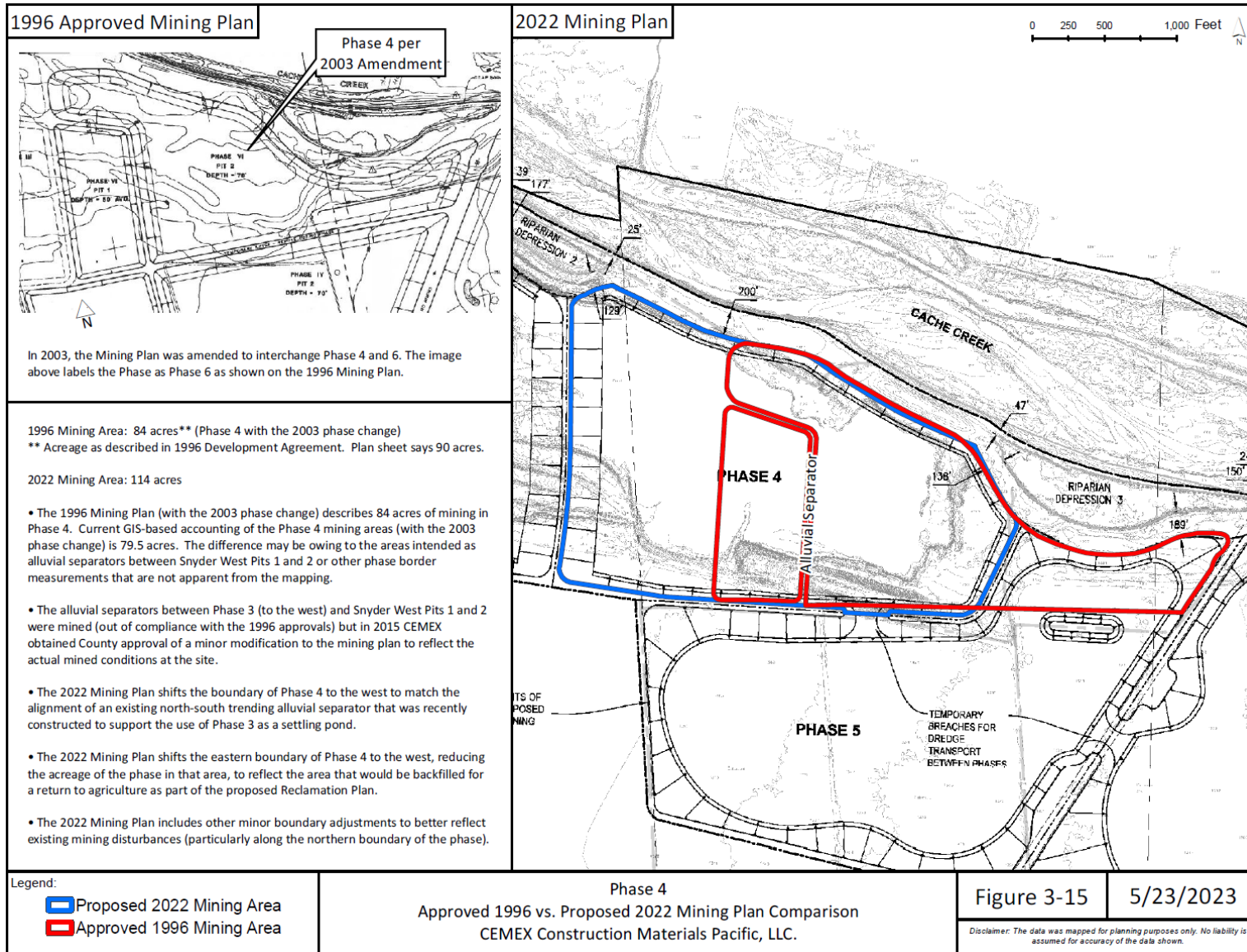
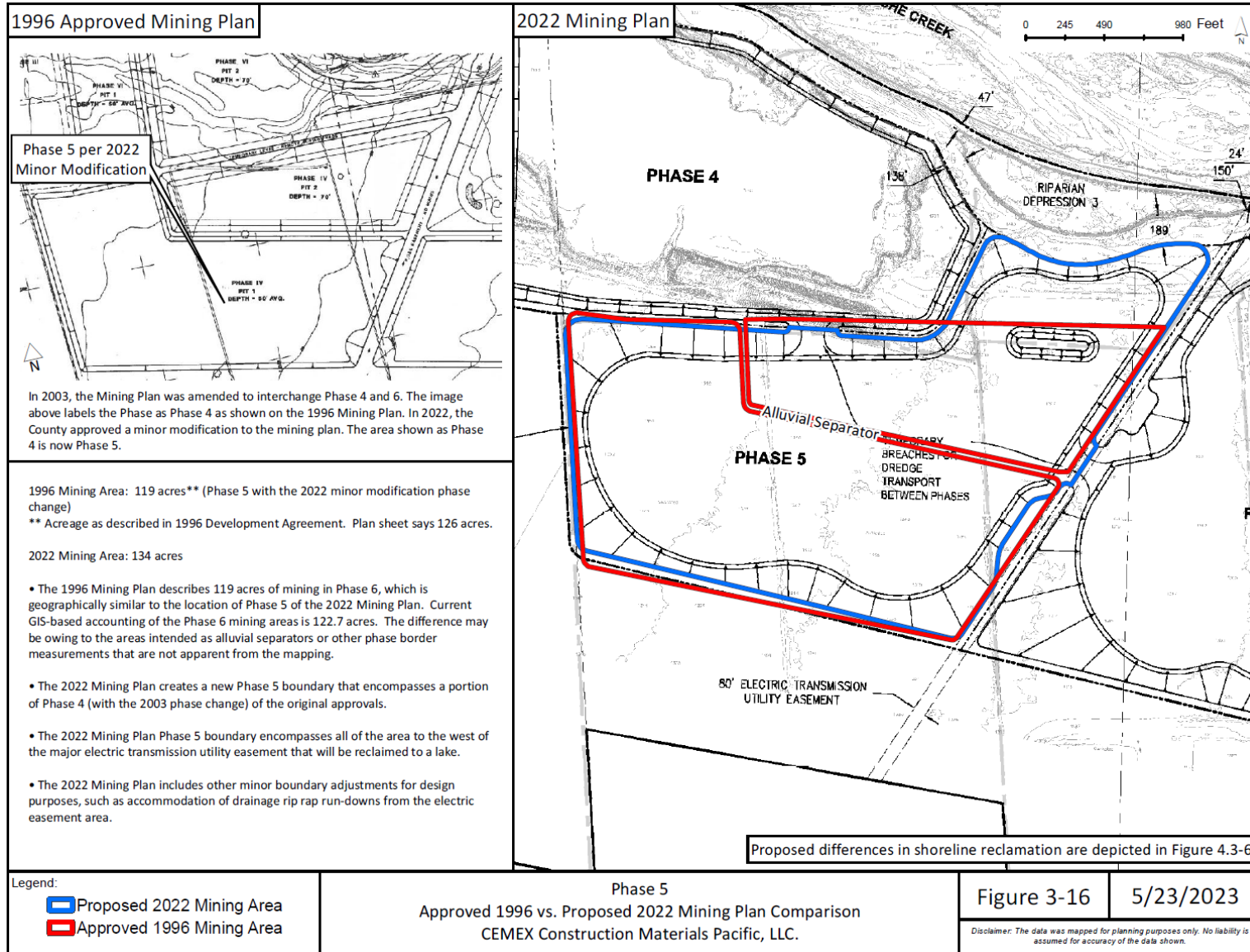


Figure 3-15
Proposed Phase 4 Mining Plan Modifications



**Figure 3-16
 Proposed Phase 5 Mining Plan Modifications**



CEMEX proposes to leave an unmined “natural” alluvial separator between Phases 4 and 5. The natural alluvial separator would consist of undisturbed, natural ground between existing and future mining pits within Phases 4 and 5 (see Figure 3-5). The purpose of the natural alluvial separator between proposed Phases 4 and 5 is to facilitate backfilling of Phase 4 for a return to agriculture while maintaining a stable¹⁴ separation for the future open water lake in future Phase 5.

- For Phase 6, modify the mining phase boundary resulting in an increase of ±1-acre (from 134 acres to 135 acres) (Figure 3-17, Proposed Phase 6 Mining Plan Modifications). While the approved Development Agreement describes the proposed Phase 6 mining area (originally approved as Phase 5, then changed to Phase 6 in 2022) as 136 acres, the 1995 mining plan sheets label the mining area as 134 acres. Proposed date for final reclamation changed from 2026 to 2048.
- For Phase 7, modify the mining and reclamation plans to remove this Phase entirely.

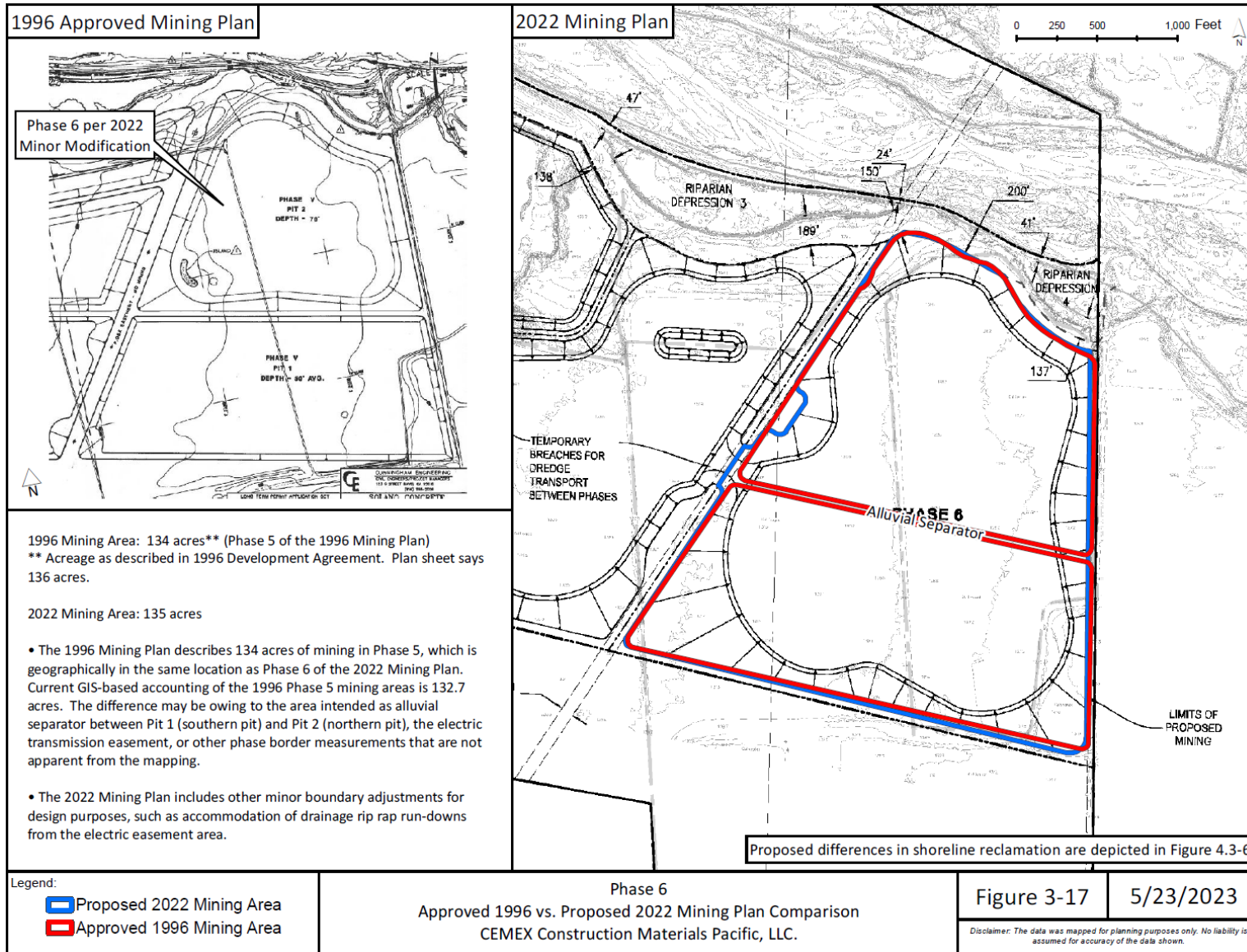
Changes to Reclamation

The applicant proposes a ±100-acre increase in the overall area to be reclaimed (±816 acres proposed versus ±716 acres under existing entitlements) (Figure 3-8), primarily due to the inclusion of areas located between the north boundary of Phases 1 through 6 and the south bank of Cache Creek as part of the proposed revised Reclamation Plan (Figure 3-9). The change in acreage also accounts for elimination of Phase 7 from the project. The change in reclamation acres is not due to any substantial proposed increase in surface disturbance or operating areas. Existing surface mining disturbances in these northerly areas (e.g., access roads, conveyor alignment, soil and overburden stockpiles) are proposed to be included as part of the reclamation plan boundary, pursuant to the requirements of SMARA and County Code. In addition, project acreage calculations are now based on a 2018 property survey and GIS-based digitization of phase boundaries which is more accurate than the prior hand-drawn and hand-calculated boundaries that were used to calculate acreages in 1996 for the existing entitlements.

The project proposes changes to the reclamation plan to increase the lake acreage by ±51 acres; increase in shoreline and other habitat by ±113 acres; decrease reclaimed farmland by ±57 acres; and change the type of agriculture from approximately 50 percent row crop and 50 percent tree crop to approximately 80 percent row crops and 20 percent tree crop. These changes reflect an updated accounting of available soil material that can be used to support reclamation to agriculture following mining activities. The applicant has determined that there will not be enough topsoil and overburden to undertake the amount of reclaimed agriculture originally approved and is, therefore, proposing to increase the lake and habitat areas (and associated land dedication to the County) and decrease the area of reclaimed agriculture.

¹⁴ Slope Stability Evaluation, Geocon, February 2018 (Appendix I of this Draft SEIR)

Figure 3-17
Proposed Phase 6 Mining Plan Modifications



The approved reclamation plans include 61 acres of habitat and the approved HRP includes 166 acres of habitat. The 166 acres is comprised of 74.5 acres of creek restoration and 91.2 acres of natural habitat restoration around the perimeters of the lakes. The proposed project would incorporate all acreage requiring reclamation into the approved reclamation plans, thus aligning the plan sheets with the HRP. The proposed reclamation plans and the proposed HRP both include 174 acres of habitat comprised of the habitat types shown below. This reflects an actual increase of 8 acres (5%) of habitat.

Acres	Habitat
87.0	Oak Savanna
28.6	Native Grassland Buffer
20.7	Riparian Depression
20.1	Riparian Woodland
15.3	Perennial Marsh
2.3	Tree Screen on I-505
<u>174.0</u>	

The following specific reclamation plan modifications are proposed:

1. Add ± 100 acres overall to include areas disturbed by mining along Cache Creek and the I-505 buffer areas.
2. Increase the lake area by ± 51 acres, increase the shoreline and other habitat by ± 113 acres, decrease agriculture by ± 57 acres, decrease slopes and roads by ± 7 acres, and modify the configuration of reclaimed areas. The modified configuration would decrease the proximity of the reclaimed lakes to the restored riparian habitat along the creek by approximately 2,340 linear feet.
3. Change the agricultural end uses from approximately 50 percent row crop and 50 percent tree crop to approximately 80 percent row crops and 20 percent tree crop.
4. Approximately 67 acres of the 100-acre Hutson parcel that comprises much of Phase 1 was reclaimed in agriculture with active agricultural production from 1989 to 2016. Until recently, this phase has not been under active crop production since that time due to additional overburden and topsoil fill placements made by the operator. However, in 2022 the field was releveled, and drainage improvements were made by CEMEX and Sagara Farms, Inc. Crops were planted in December 2022.
5. Adjust the boundary between Phases 1 and 3, resulting in a ± 9 -acre decrease in the size of Phase 1 (from 140 to 131 acres).
6. Make changes to the Phase 2 to allow reclamation of the western 31.9 acres to agriculture in the next five years and to use the eastern 31.9 acres as a designated stockpiling and construction material recycling area that would be reclaimed to agriculture (along with the plant site) at the end of the life of the permit.

7. Eliminate proposed reclamation to two lake features in Phases 1, 3, and 4, and replace with reclamation to agriculture.
8. Consolidate all lake features into two large lakes in Phases 5 and 6, with modified configuration. Both lakes would be dedicated to the County to be included in the Cache Creek Parkway after final reclamation.

Consistent with existing approvals, after mining is completed, Phases 2, 3, and 4 will receive backfill for reclamation to agriculture. Phases 5 and 6 will be reclaimed to permanent lakes and will not require backfill (unless necessary to flatten perimeter lake slopes for future habitat value). Where required, backfill with overburden and topsoil will be performed using conventional mobile equipment such as scrapers and bulldozers. Reclaimed (backfilled) agricultural fields will have lowered elevations relative to original ground. However, as required by Reclamation Ordinance Section 10-5.516, the final distance between lowered surfaces reclaimed to agriculture and the average high groundwater will not be less than five feet. Final reclamation, consisting of finish slope reclamation, revegetation and equipment removal will generally commence as soon as final excavation grades are achieved by phase. Figure 3-18 and Table 3-7 below provide a comparison of reclamation end uses and acreages for the current entitlements and proposed Project.

Permit Extension

The approved permits expire August 11, 2027. The applicant proposes to extend this expiration date by 20 years to August 11, 2047. Extension of the mining permit is allowed under Section 10-4.426 of the Mining Ordinance and existing Condition of Approval No. 6. While mining would cease after 2047, final County sign-off on reclamation may not occur for an additional period of three to five years to allow reclamation performance standards to be met. This analysis assumes that all reclamation activities will be concluded by August 11, 2052.

Modified Conditions of Approval

Modify various conditions of approval to reflect the proposed changes and integrate the County's recently completed ten-year permit review.

Development Agreement

The Solano Concrete Long-Term Off-Channel Mining Permit Development Agreement No. 96-287 was approved December 17, 1996 (second reading and recordation on January 7, 1997) pursuant to Yolo County Ordinance No. 1199. It was subsequently amended twice:

1. The first amendment, dated May 22, 2001 (Ordinance No. 1264 and Agreement No. 01-124), expanded the size of the plant site by 0.6 acres to incorporate a relocated batch plant and new office into the existing mining facility.

Figure 3-18
Comparison of Reclaimed Uses

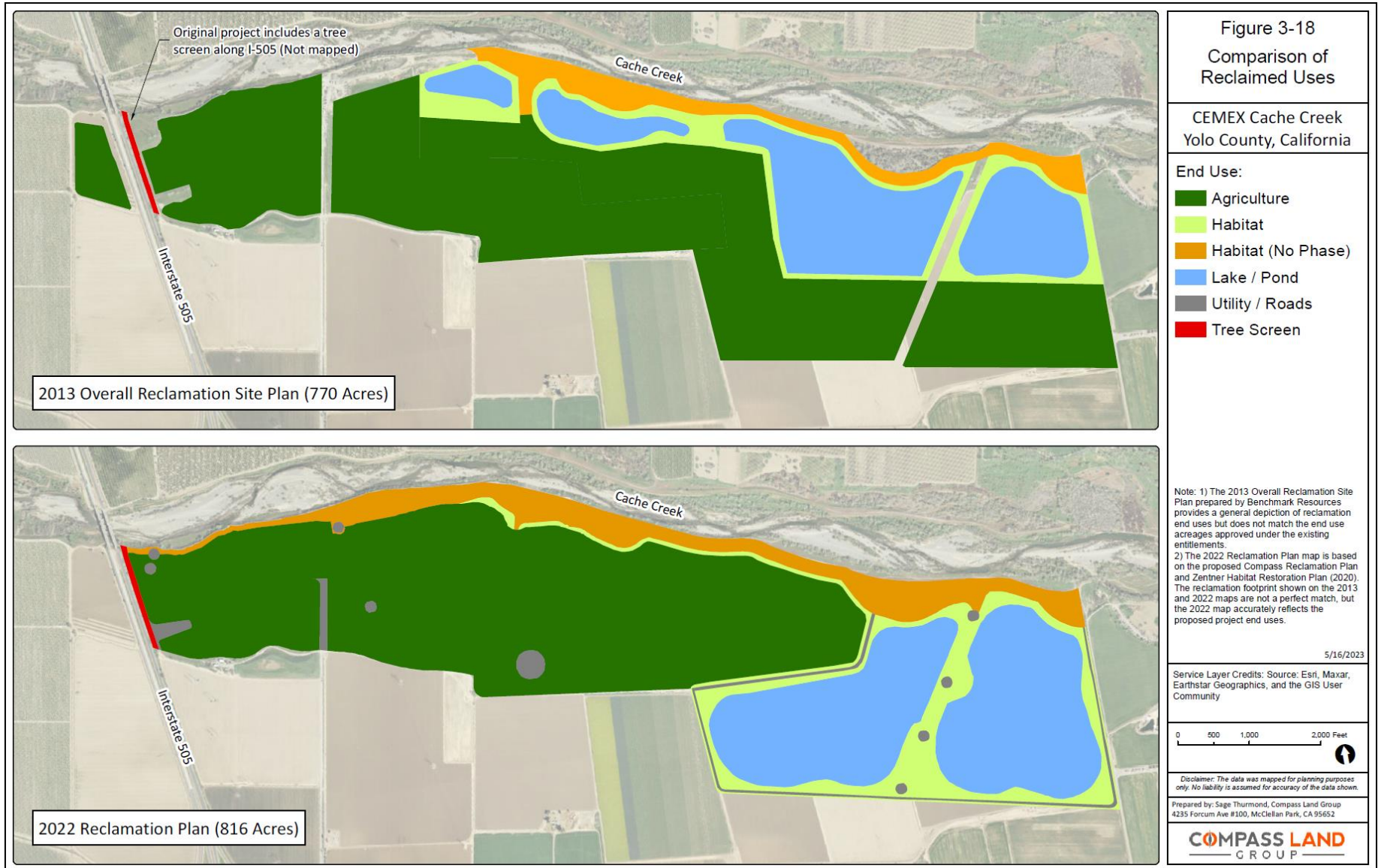


Table 3-7: Reclamation End Use Comparison by Phase

Phase	Agriculture (± acres)	Habitat (± acres)	Lakes (± acres)	Slopes/Roads (± acres)	Total (± acres)
<i>Approved Reclamation^[1]</i>					
1	120 ^[3]	3	13 private ^[6]	4	140
2	61			4	65
3	90	19	17 private	3	129
4	15	9	57 public ⁶	3	84
5	67	17	46 public	4	134
6	83	13	20 public	3	119
7	10			5	15
Plant Site	30				30
Total	476^[4]	61^[8]	153	26	716
<i>Proposed Reclamation^[2]</i>					
1	124.5	5.8		0.4	130.7
2	63.7				63.7
3	91.7	5.4		2.9	100.0
4	111.3	8.1			119.4
5		27.5 (shoreline) ^[5] 9.4 (other)	102.9 public	5.9	145.7
6		33.2 (shoreline) ^[5] 7.4 (other)	101.1 public	4.1	145.8
Plant Site	27.4	6.2 ^[9]		1.3	34.9 ^[7]
Creek Setback		68.7			68.7
Other Buffer ^[10]				4.6	4.6
I-505 Buffer ^[11]		2.3			2.3
Total	418.6	174.0^[8]	204.0	19.2	815.8
<i>Net Change in Reclamation Acres (Proposed vs. Approved)</i>					
Net Change	-57.4	+113.0^[8]	+51.0	-6.8	+99.8

Source: TSCHUDIN CONSULTING GROUP, January 28, 2023.

Notes:

¹ For Phases 1 through 7, acreages are per Development Agreement No. 96-287 (dated December 17, 1996), Recitals V and VI; as amended for changes to Phases 4 and 6 on April 15, 2003. For Plant Site, acreages are based on March 12, 2014, letter from Yolo County approving *Minor Modification to the CEMEX Reclamation Plan*, which approved reclamation of the 30-acre plant site to agricultural use.

² Figure 4 of proposed *Habitat Restoration Plan* (Zentner, October 2022).

³ Phase 1 reclamation to Agriculture includes 20 acres for Farnham parcel plus 100 acres for Hutson parcel.

⁴ Reclamation to Agriculture includes 223 acres identified as “row crop,” 223 acres identified as “tree crop,” and 30 acres of general agricultural use (the plant site).

⁵ Shoreline habitat as described on Figure 4 of proposed *Habitat Restoration Plan* (Zentner, October 2022).

⁶ Private = Reclaimed lake remaining in private ownership. Public = Reclaimed lake to be dedicated to County.

⁷ As part of the project an additional 4.9 acres is proposed to be reclaimed around the plant site to reflect a more accurate plant site boundary and actual disturbances around the plant.

⁸ Approved reclamation plans include 61 acres of habitat; approved Habitat Restoration Plan (HRP) includes 166 acres of habitat. This difference is resolved with the proposed project which would incorporate all acreage requiring reclamation into the approved reclamation plans. The proposed reclamation plans and proposed HRP both include 174 acres of habitat. This reflects an actual increase of 8.0 acres (5%) of habitat.

⁹ 3.7 acres oak savanna and 2.5 acres native grassland buffer.

¹⁰ Utilities and roads.

¹¹ Tree screen.

2. The second amendment, dated April 15, 2003 (Ordinance No. 1299 and Agreement No. 03-54), recognized a change in ownership to Rinker Materials and changed the sequence of mining phases from Phases 4, 5, and 6 to Phases 6, 4, and 5, in order to allow a shorter period of disturbance for Phase 4, faster reclamation, and creation of a larger reclaimed area of lake and habitat upon conclusion of mining.

As a part of the subject project, the applicant proposes a third amendment to the Development Agreement No. 96-287 to comport the agreement and exhibits to requested modifications to the mining permit, reclamation plan (including timing and sequencing of reclamation), and previously negotiated description and timing of public benefits (also referred to as “net gains”), and other relevant project components.

Other Project Characteristics

The applicant proposes no changes to other components of the existing approvals, including maximum depth of mining, maximum annual rate of mining, equipment used for mining and processing, use of settling ponds to contain and settle aggregate wash fines, truck routes, or hours of operation. Each of these aspects of the project is described further below.

Maximum Depth of Mining

As originally proposed and approved in 1996, mining in Phases 1 through 6 would be to an estimated maximum depth of 70 feet. This depth reflects the maximum depth of the feasibly harvestable aggregate resource, and is consistent with Section 10-4.411.1 of the County’s Mining Ordinance which encourages excavation to the full depth of available resources at any particular mining site in order to minimize the mining footprint, ensure efficiency in resource extraction, minimize impacts to agriculture, and minimize impacts of water loss associated with evaporation from reclaimed lakes. Page 2 of the Development Agreement documents these maximum depths. The applicant proposes no changes to mining depth as a part of this proposed modification.

Maximum Annual Rate of Mining

The annual production for the mine is currently limited to 1,204,819 tons mined (1,000,000 tons sold). Pursuant to Section 10-4.405 of the Mining Ordinance, the operation has approval to exceed the annual production level by up to 20 percent to 1,445,783 tons mined (1,200,000 tons sold) in any one year, so long as the running ten-year production average does not exceed 12,048,190 tons mined (10,000,000 tons sold). Under no circumstances may annual production exceed 1,445,783 tons mined (1,200,000 tons sold). This limit does not apply to recycled waste material or aggregate obtained from in channel maintenance work performed in accordance with the CCAP. The project proposes no change to these annual tonnage limits.

Mining and Processing Equipment

Mining operations will continue to involve removal of vegetation, topsoil/growth media, and overburden materials that lie above marketable sand and gravel deposits. The overlying materials will be removed using scrapers aided by a motor grader and bulldozer, or excavator and off-road haul trucks, as needed. After overlying materials are removed, marketable sand and gravel will

be excavated using conventional mining equipment such as scrapers, excavators, and bulldozers (for dry mining) and an electric dredge (for wet mining). Following excavation, the sand and gravel will be transported primarily by electric conveyor to the existing aggregate processing plant for washing, crushing, sorting and sale.

Settling ponds (accepting and settling aggregate process wash fines, or silts) have been used at the site since the onset of aggregate processing activities in the 1970's. Portions of Phase 1, which have already been substantially reclaimed to agriculture, were once used as settling ponds. Currently, a small pond in the northeast corner of Phase 1 serves as the active settling pond that receives wash fines discharged from the aggregate processing plant. CEMEX will continue to use this as a settling pond until it reaches its capacity, at which time it will receive a soil cap and be reclaimed to agriculture. To accommodate the need for future pond capacity, CEMEX has constructed an alluvial separator (dike) in Phase 3 (to serve as the new boundary between Phases 3 and 4) in order to re-purpose the Phase 3 area as a long-term settling pond. The Phase 3 and alluvial separator configuration was designed for sufficient capacity to contain the wash fines that are projected to be generated during the life of the project.

Truck Route

Except for local deliveries, trucks leaving the CEMEX plant must either exit the facility via a private driveway west onto SR 16 to Interstate 505 (north or south) or east on SR 16 to Interstate 5 (via SR 16 only). Trucks must stay on the interstate until they have left Yolo County, as there are no designated haul routes for the operation on County roads.

Hours of Operation

Under the CCAP, CEMEX is allowed to operate 24 hours per day, as needed, to meet market and customer demands. The crushing equipment at the plant typically operates during the daytime from 5:00 a.m. to 5:00 p.m., Monday through Friday. The asphalt hot plant, operated by Vulcan, typically runs at night. CEMEX does not typically conduct mining at night; however, load out will occasionally occur at night based on the job requirements. The existing approvals do not impose any restrictions on hours of operation and CEMEX proposes no change to allowed or typical hours of operation.

Employment

Approximately 15 employees are involved with mining and processing at the site. No changes in employment are proposed.

Mining and Reclamation Phasing

Mining phasing is summarized in Table 3-8 below. This table shows only proposed mining that will continue into the future, so no mining activity is shown for Phases 1 through 3 or the Plant site.

Table 3-8: Summary Phasing Table

Disturbance Area	Acres To Be Mined	Approx. Production Tons Sold	Approx. Production Tons Mined	Mining Duration (yrs)	Reclaimed End Uses	Acres of Reclaimed End Uses	Proposed Reclamation End Date
Plant Site	--	--	--	--	Agriculture	35	2048
Phase 1	--	--	--	--	Agriculture	131	2025
Phase 2	--	--	--	--	Agriculture	64	2026 west 2048 east
Phase 3	--	--	--	--	Agriculture	100	2048
Phase 4	114	2,000,000	2,299,000	±2	Agriculture	119	2039
Phase 5	134	10,000,000	11,494,000	±10	Permanent Lake, Wildlife Habitat	146	2034 2048 ^[1]
Phase 6	135	14,000,000	16,092,000	±14	Permanent Lake, Wildlife Habitat	146	2048
Remainder	--	--	--	--	Wildlife Habitat	76	2048
Total	383	26,000,000	29,885,000	±26		816	

Notes:

¹ Conveyor assembly

-All acreages are approximate.

-Anticipated mining schedule assumes annual production of approximately 1,000,000 tons per year (sold weight).

-Anticipated progression and production is approximate only. Actual timelines and production will vary depending on market and geologic conditions.

-Final reclamation may occur three to five years after anticipated progression of mining and reclamation (e.g., to allow reclamation performance standards to be met).

-Reclaimed end uses also include 19 acres of "Slopes and Roads" in Phases 1, 3, 5, 6, plant site, and remainder areas, as tabulated in the Revised Reclamation Plan Narrative (Appendix E).

Progression of mining and reclamation by year is shown in Table 3-9 below.

Table 3-9: Anticipated Progression of Mining and Reclamation

Area ^[5]	Mining ^[3] (Start Date)	Mining ^[3] (End Date)	Reclamation (Start Date)	Reclamation ^[4] (End Date)
Phase 1	--	Completed 1996	Underway	2025
Phase 2A (West)	--	Completed 2003 ^[1]	2025 (West)	2026
Phase 2B (East)			2047 (East)	2048
Phase 3	Underway	2023	2024	2048
Phase 4	Underway	2024	2022	2039
Phase 5	Underway	2033/2047 ^[2]	2033/2047	2034/2048
Phase 6	2033	2047	2047	2048
Processing Plant Site	--	--	2047	2048
Conveyor Alignment	--	--	2047	2048

Notes: (notes on continue onto next page)

¹ Estimate.

² After Phase 6 is mined, the Operator will perform limited additional mining in the northern portion of Phase 5 as the conveyor assembly is removed to develop a habitat island as part of reclamation. This work is anticipated to occur in 2047

³ Anticipated mining duration assumes annual production of approximately 1,000,000 tons per year (sold weight).

⁴ Final reclamation may occur three to five years after anticipated progression of mining and reclamation (e.g., to allow reclamation performance standards to be met).

⁵ Anticipated progression is approximate only. Actual timelines will vary depending on market and geologic conditions.

Net Gains

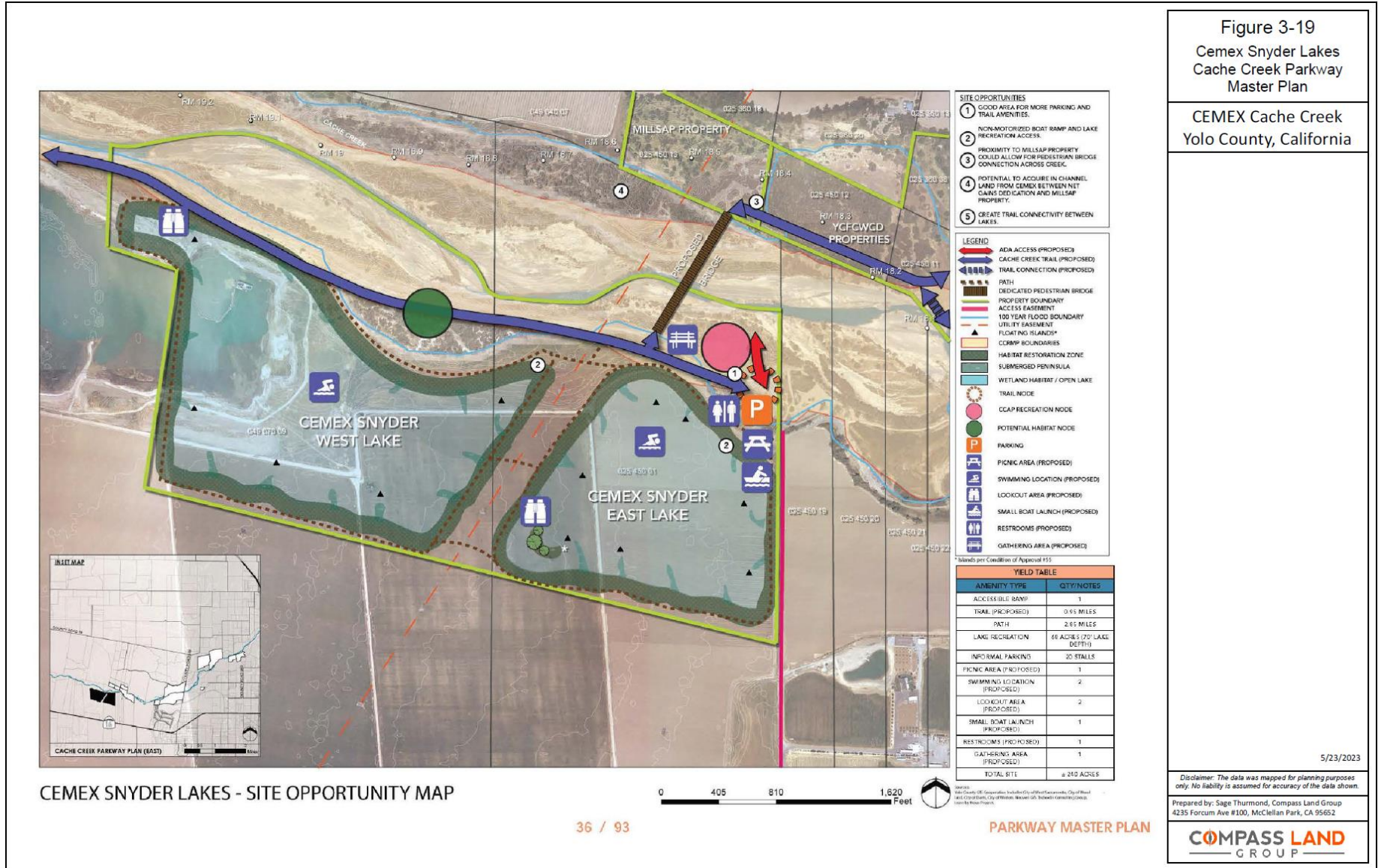
“Net gains” are additional public benefits that go beyond CEQA mitigation measures. The provision of net gains is a fundamental component of the CCAP, and a requirement under OCMP Action 7.4-1, CCRMP Action 5.4-1, and Section 10-4.502(i) of the Mining Ordinance.

Action 6.4-7 of the OCMP, and Actions 4.4-10 and 4.4-11 of the CCRMP, require alignment with the Yolo County CCAP Parkway Plan (Figure 3-19, Cemex Snyder Lakes, Cache Creek Parkway Master Plan). The net gains proposed by the applicant are in general alignment with the Parkway Plan. Approved and new proposed net gains features are described below.

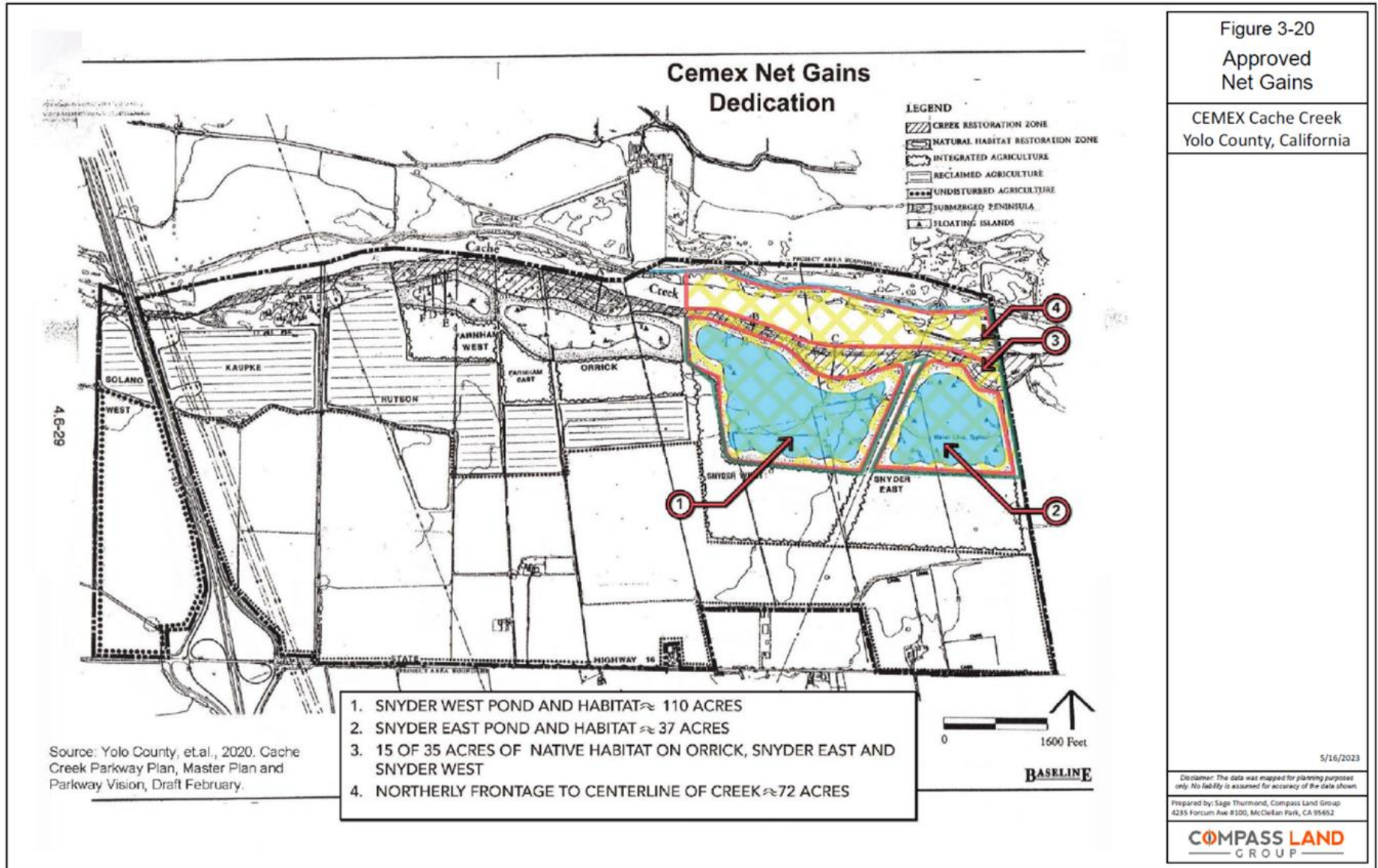
Pursuant to Section 2.2.8 of the Development Agreement No. 96-287, the approved net gains for this operation are as follows (Figure 3-20, Approved Net Gains):

1. Lakes and Perimeter Habitat – Dedication of ±150 acres of lake and perimeter habitat after completion of reclamation (estimated to occur in 2032):
 - Snyder West Lake and perimeter habitat = 38.3 acres
 - Snyder West Lake and perimeter habitat = 111.5 acres
2. Eastern Road Easement – Dedication of the following access following completion of reclamation:
 - 40-foot road easement from SR 16 to dedicated Snyder East Lake site = 2.8 acres
3. In-Channel Dedication to Centerline – Dedication of in-channel property following completion of reclamation:
 - Northerly frontage to centerline of creek = ±55 acres
4. In-Channel Restoration – Completion of the following additional restoration:
 - Restoration of 35 acres of previously mined riparian: a) Orrick 20 acres (in Phase 3) to remain in private ownership; and b) Snyder West and East ±14 acres dedicated to County as part of in-channel dedication described above.

Figure 3-19
CEMEX Snyder Lakes, Cache Creek Parkway Master Plan



**Figure 3-20
 Approved Net Gains**



CEMEX proposes to modify the approved net gains as follows:

1. Lakes and Perimeter Habitat – Increase the previously identified lake and habitat dedication by an additional ± 73.5 acres of lake and perimeter habitat adjacent to Cache Creek (Figure 3-21 (A and B), Proposed New Net Gains).
2. Eastern Road Easement – The easement will be a 40-foot-wide public road and utility right-of-way easement. The easement length will be shorter per the proposed reconfigured lakes. The dedication will include a 12-foot rough-graded (e.g., bladed, drivable) access road from State Route 16 to a rough-graded (e.g., bladed, drivable) turn-around (approximately 90 to 100 feet in diameter), to allow public and County access and sufficient for emergency vehicle use, north of the eastern lake.
3. In-Channel Dedication to Centerline – No change; however, acreage is slightly less than original estimate based on surveying and improved accuracy of mapping.
4. In-Channel Restoration – No change.
5. Dedication of Millsap Connector Property – Dedication in fee of the in-channel portion of the land north of Phase 6, north of the centerline of Cache Creek, to the boundary of the neighboring Millsap property. Total acreage of dedication approximately 12.4 acres.
6. Western Road Easement – Easement dedication of 40-foot-wide public road and utility right-of-way, west of I-505, along property line of former Phase 7, from SR 16 to new Creekside Trail. Allows for public access (proximate to Madison) to creekside trail loop along Cache Creek. The dedication will include a 12-foot rough-graded (e.g., bladed, drivable) access road from State Route 16 to a rough-graded (e.g., bladed, drivable) turn-around (approximately 90 to 100 feet in diameter) to allow public and County access and sufficient for emergency vehicle use in the old Phase 7 area. CEMEX will convey to County for shared (including public) use, any implied, residual, and/or prescriptive rights to traverse under I-505, but such rights shall be non-exclusive and will not impair CEMEX's rights to traverse under I-505.
7. Creekside Trail Easement – Dedication of 40-foot trail easement along south side of Cache Creek from Eastern Road Easement to Western Road Easement. Totals 8.2 acres (8,910 lineal feet). Dedication shall include a minimum 8-foot rough graded (e.g., bladed, drivable) trail connecting between the two road accesses.
8. Cash Donation – \$15,000 to the Cache Creek Nature Preserve within one year of project approval.
9. Cash Donation – \$5,000 to the County for update of the Cache Creek Parkway Plan documents within one year of project approval.

Figure 3-21A
Proposed New Net Gains

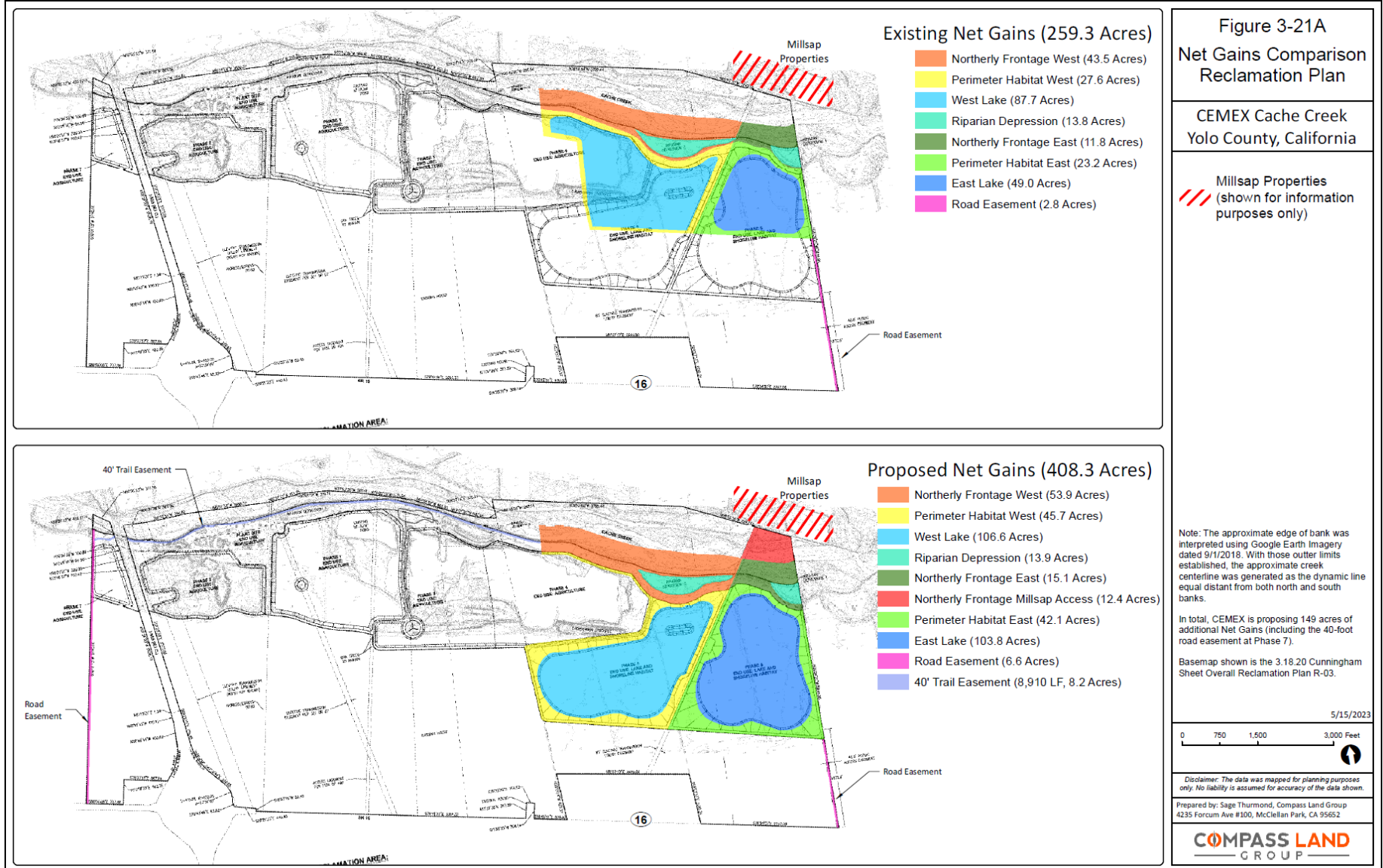
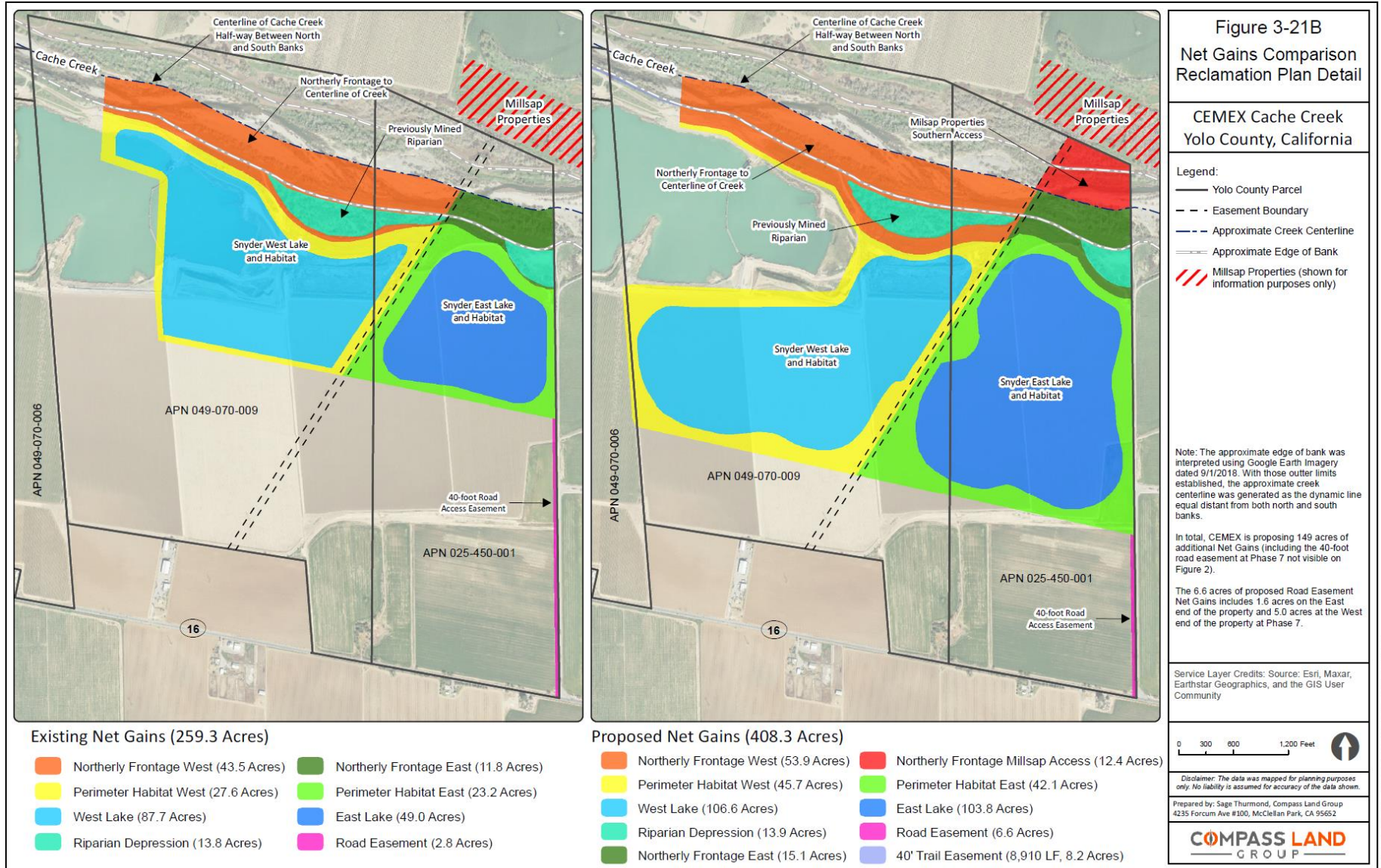


Figure 3-21B
Proposed New Net Gains



New proposed dedication of land ensuring connection to the Millsap Property satisfies identified opportunities and constraints in the Parkway Plan. The Parkway Plan also identifies lake recreation, informal parking, trails, and pathways with which the applicant's net gains proposal is consistent.

3.7 COMPARISON TO APPROVED PROJECT

Proposed changes in the project as approved are summarized in Table 3-10 below. The environmental impacts of these changes are the subject of analysis in this Draft SEIR.

Table 3-10: Comparison of Key Features of Project

Project Component	Approved (Current) Project	Proposed Project	Notes
General Project Information			
Project site area	1,828 acres	1,902 acres	Increase of 74 acres; however, no change in area is proposed. The change in acreage is simply due to more accurate information resulting from a property survey conducted in 2018.
Total aggregate production (mined)	32,170,000 tons	53,536,426 tons	Increase of 21,366,426 tons (66%)
Total aggregate production (sold)	26,700,000 tons	46,636,119 tons	Increase of 19,936,119 tons (75%)
Maximum annual aggregate production (mined) ^[1]	1,445,783 tons	1,379,310 tons	Estimated decrease of 66,473 tons related to update of waste factor from 17% to 13%.
Maximum annual aggregate production (sold) ^[1]	1,200,000	1,200,000	No change ^[5]
Total length of permit approval through end date	30 years (2027)	2047 (50 years)	20-year extension requested
Phases	7 (plus plant site)	6 (plus plant site)	Eliminated Phase 7 located on west side of I-505.
Mining Activities			
Mining area	586 ac. (481 ac. remaining)	647 ac. (470 ac. remaining)	No change
Method of mining	Electric dredge (since 2005)	Electric dredge (since 2005)	No change. Original mining method was drag lines.
Maximum depth	70 feet	70 feet	No change
Truck route	Direct access to SR 16	Direct access to SR 16	No change
Hours of operation	5:00 a.m. to 5:00 p.m. M-F typical; 24/7 allowed	5:00 a.m. to 5:00 p.m. M-F typical; 24/7 allowed	No change
Maximum phase size	114 acre (Phase 4)	201 acres (Phases 3 + 4)	Increase of 87 acres
Reclamation Activities			
Reclamation area	716 acres	816 acres	Increase of 100 acres previously disturbed along the creek and I-505
Area reclaimed to agriculture	476 acres	419 acres	Decrease of 57.4 acres
Row crop/tree crop split	50% / 50% 223 acres / 223 acres	80% / 20% 334 acres / 85 acres	Increase of 50% (+111 acres) row crops;

			Decrease of 62% (-138 acres) tree crops
Area reclaimed to habitat	61 acres (on plan sheets) 166.0 acres (in HRP)	174 acres	Approved reclamation plans include 61 acres of habitat; approved Habitat Restoration Plan (HRP) includes 166 acres of habitat. This difference is resolved with the proposed project which would incorporate all acreage requiring reclamation into the approved reclamation plans. The proposed reclamation plans and proposed HRP both include 174 acres of habitat. This reflects an actual increase of 8.0 acres (5%) of habitat.
Area reclaimed to lake	153 acres	204 acres	Increase of 51 acres ^[7]
Number of lakes	4	2	Decrease in total number of lakes
Area reclaimed to slopes and roads	26 acres	19 acres	Decrease of 7 acres
Contiguity of reclaimed lakes to creek	3,740 linear feet	1,400 linear feet	Decrease of 2,340 linear feet
Net Gains			
Dedication of two lakes and perimeter habitat	±187.5 ^[2] acres in ±2032	±298 acres in ±2052	Dedication of ±73.5 more acres of lake and ±37 more acres of perimeter habitat; dedication of Snyder lakes delayed approximately 20 years
Dedication of 40-foot access road easement (on east side)	±2.8 acres in ±2032	±1.8 acres in ±2052	Shortened access because lake is closer to SR 16. Dedication of access delayed approximately 20 years – will be included with dedication of Phase 6 lake
Dedication of creek frontage from lakes to centerline of creek	±55 ^[4] acres in ±2032	±69 ^[3] acres in ±2052	Area of creek frontage to be dedicated increased by 14 acres. Time of dedication delayed 20 years, except for portion adjoining Phase 6 lake.
Dedication of ±15 acres of riparian restoration	±14 ^[6] ac in ±2032	±14 ^[6] ac in ±2052	In conjunction with final reclamation. Dedication delayed 20 years
Dedication of land between creek centerline and Millsap property	N/A	±12.4 acres in ±2052	New dedication to Parkway in conjunction with dedication of Phase 6 lake
Dedication of new 40-foot access road easement from west side of prior Phase 7 to SR 16	N/A	±4.8 acres in ±2052	New creek access for Madison community
Dedication of 40-foot trail easement from public	N/A	±8.2 acres in ±2052	New trail connection along Parkway within one year

access on west side to net gains dedications on east side			of reclamation of plant site.
Contribution of various cash donations	N/A	Various	Additional \$20,000 in program funding, within one year of project approval.

Source: TSCHUDIN CONSULTING GROUP, May 16, 2023.

Notes:

¹ This includes the previously approved 20 percent exceedance allowed under Section 10-4.405 of the County Mining Ordinance

² This acreage has been updated to reflect digitization of the original net gains commitments and therefore differs from acreages in the executed Development Agreement which were estimated based on less accurate mapping methods.

³ Separate from ±14 acres of riparian restoration and ±12 acres between the creek centerline and the Millsap property.

⁴ This acreage was incorrectly estimated as approximately 78 acres in the 2019 Cache Creek Parkway Plan Baseline Inventory.

⁵ The 647 acres includes 116 acres in Phase 1. The 1996 approvals included only 40 acres in Phase 1. 116 ac. – 40 ac. = 76 acres. 586 ac. + 76 ac. = 662 acres. 662 ac. – 15 ac. (elimination of Phase 7) = 647 acres. Therefore, no change. The remaining 470 acres includes the full 87 acres of Phase 3, although only minor cleanup work remains in Phase 3 (which should be completed next year).

⁶ Change from 15 acres to 14 acres due to discrepancies in mapping – boundaries are unchanged. This acreage is separate from the 55-acre dedication comprised of the creek frontage to centerline.

⁷ The Development Agreement references 153 acres for the total size of the four lakes. Based on digitization, the actual acreage approximately 146 acres. Increase based on digitization is approximately 58 acres.

3.8 PREVIOUS ENVIRONMENTAL REVIEW

Project FEIR

The Solano Long-Term Off-Channel Mining Permit Application FEIR (SCH #96012034) was certified by the Board of Supervisors on November 25, 1996. This was a comprehensive EIR analyzing all topics required under CEQA at the time with the exception of population and housing, energy and mineral resources, and public services and utilities (which were identified in the initial study as being unaffected by the project).

All identified mitigation measures (with changes to Mitigation Measures 4.3-4c, 4.6-5a, and 4.6-5b as reflected in the conditions of approval), were incorporated into the conditions of approval for the approved operation (Mining Permit No. ZF #95-093 and Development Agreement No. 96-287). The following impacts were identified at the time as significant and unavoidable:

- Permanent conversion of agricultural land (Impact 4.5-2)
- Cumulative loss of agricultural land (Impact 4.5-8)
- Inconsistency with Yolo Resource Conservation District agricultural policies (Impact 4.2-6)
- Increases in PM 10 emissions in excess of thresholds (Impact 4.7-1)
- Increases in ozone precursors emissions (Impact 4.7-2)
- Effect on attainment of local and regional air quality goals (Impact 4.7-3)

- Effect of archeological resources (Impact 4.11-2)

There were also various cumulative impacts identified at the time in the companion 1996 OCMF Program FEIR as follows:

- Permanent loss of agricultural land
- Temporary loss of agricultural productivity
- Cumulative loss of productive agricultural land
- Emission of PM 10
- Emissions of ozone precursors (ROG and NOx)
- Cumulative impacts to air quality
- Increase in vehicle trips
- Impacts to views or vistas

CCAP Update FEIR

The Cache Creek Area Plan (CCAP) Update FEIR (SCH # 2017052069) was certified by the Board of Supervisors on December 17, 2019. This was a comprehensive EIR analyzing all topics required under CEQA with the exception of land use and planning, population and housing, public services, recreation, and utilities and services systems (which were identified in the initial study as having no significant effect resulting from the project). All identified mitigation measures were incorporated into the updated CCAP plans and regulations which are applicable to the proposed project. The following impacts were identified at the time as significant and unavoidable:

- Cumulative aesthetic impacts (Impact CUMULATIVE AES-1)
- Conversion of protected farmland (Impact AG-1)
- Cumulative loss of farmland (Impact CUMULATIVE AG-1)
- Conflict with applicable air quality plan (Impact AIR-1)
- Violation of air quality standards (Impact AIR-2)
- Cumulative air quality impacts (Impact CUMULATIVE AIR-1)
- Increased GHG emissions (Impact GHG-1)
- Cumulative GHG emissions (Impact CUMULATIVE GHG-1)

- Cumulative roadway noise (Impact CUMULATIVE NOI-1)
- Cumulative transportation impacts (Impact CUMULATIVE TR-1)

3.9 REQUIRED APPROVALS FROM YOLO COUNTY

The proposed project would require the following County approvals:

- Certification of a Subsequent EIR prepared pursuant to Section 15162 of the CEQA Guidelines (Subsequent EIR).
- Amendment to Mining Permit No. ZF #95-093 to:
 - Allow mining to continue on ±383 acres (Phases 4 through 6) for an additional 20 years through the year 2047.
 - Approve revised Mining Plan sheets reflecting modified mining phase boundaries, elimination of Phase 7, increased acreage that can be simultaneously disturbed, and increased acreage that can be used for processing.
 - Approve increased the total production limit from 32,170,000 tons mined (26,700,000 tons sold) over the term of the permit to 53,536,426 tons mined (46,636,119 tons sold).
 - Modify various conditions of approval to reflect the final approved changes.
- Amendment to the approved Reclamation Plan to:
 - Modify reclamation area to reflect ±816 total acres reclaimed to ±419 acres of agriculture (approximately 80% row crops and 20% tree crops), ±204 acres of permanent lakes, ±174 acres of riparian and other habitat, and ±19 acres of slopes and roads.
 - Allow a longer period for reclamation by phase and overall, with all reclamation completed by 2052.
 - Approve revised Reclamation Plan sheets, Reclamation Plan narrative, and Habitat Restoration Plan.
- Amendment to Development Agreement No. 96-287 to reflect the revised mining and reclamation approvals and net gains.

3.10 REQUIRED APPROVALS FROM OTHER AGENCIES

- State Department of Conservation, Division of Mining and Reclamation – Review of proposed amendments to the Reclamation Plan.

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4 INTRODUCTION TO THE ANALYSIS

INTRODUCTION

The project proposes various amendments to the CEMEX Mining and Reclamation project approved in 1996 and operating continuously under several ownerships since that time. The project was originally analyzed in the Solano Long-Term Off-Channel Mining Permit Application FEIR (SCH #96012034) certified November 25, 1996 (Yolo County Board of Supervisors Resolution No. 96-201) which can be reviewed at the following website:

<http://www.yolocounty.org/government/general-government-departments/community-services/natural-resources/mining-projects-permits/cemex-cache-creek-zf-95-093>

The subject document is a Subsequent EIR prepared pursuant to Section 15162 of the CEQA Guidelines. For projects involving a previously-certified EIR, Section 15162 states that a Subsequent EIR (SEIR) should be prepared in specified circumstances, including when substantial changes are proposed to a project, or the circumstances under which the project will be undertaken have substantially changed, which will require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Further, a SEIR should be prepared where new information becomes available following the certification of the previous EIR that shows: a) the project will have significant effects not discussed in the previous EIR; b) effects discussed in the previous EIR will be substantially more severe than previously shown; c) mitigation measures or alternatives previously found infeasible are in fact feasible but the project proponent declines to adopt them; or d) considerably different mitigation measures or alternatives would substantially reduce significant effects but the project proponents decline to adopt them.

Also, as allowed under Sections 15152 and 15168 of the CEQA Guidelines, this Draft SEIR tiers from earlier relevant EIRs as follows:

- The 1996 EIR described and referenced above; and
- The CCAP Update FEIR (SCH #2017052069), particularly as related to impacts of the CCAP as a program, some setting information, programmatic growth inducement, programmatic cumulative impacts, and programmatic alternatives. The CCAP Update EIR can be reviewed at the following website:

<https://www.yolocounty.org/government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-ccap/cache-creek-area-plan-20-year-update-eir>

This chapter contains an analysis of each potentially significant environmental issue that has been identified for the proposed project. The information below describes: 1) how a determination of significance is made; 2) the approach to analysis, when supplemental environmental analysis is triggered based on relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines

Section 15162; 3) the environmental issues/topic areas addressed in sections in this chapter; and 4) the format of the sections in this chapter.

DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment. The CEQA Guidelines direct that this determination be based on scientific and factual data. The impact evaluation in the topical sections of this chapter is prefaced by standards of significance, which are the thresholds for determining whether an impact is significant. Revisions to the standards of significance since release of the 1996 EIR are identified within each topical section.

Subsequent to certification of the 1996 EIR, the CEQA Guidelines were amended to add several topical sections not previously addressed, including climate change and greenhouse gas emissions; energy; tribal cultural resources; and wildfire. These four impact topics were not considered in the 1996 EIR and are addressed herein. In addition, substantive changes have been made to the criteria for topics that were covered in the 1996 EIR. Specifically, the current CEQA Guidelines recommend the evaluation of toxic air contaminants (TACs) in the air quality section, and vehicle miles traveled (VMT) in the transportation and circulation section. TACs and VMT were not considered in the 1996 EIR and are addressed herein.

Impacts are categorized by level of significance before and after mitigation, as follows: Less than Significant (LTS), Significant (S), and Significant and Unavoidable (SU). The description of each determination is as follows:

Less than Significant. The impact would not cause significant adverse physical changes in the existing or projected future environment; therefore, mitigation is not required. Or, while some impact may be associated with the project, it is not significant or is acceptable based on the applicable thresholds of significance.

Significant. Under CEQA, a significant impact is defined as a substantial, or potentially substantial, adverse physical change in the environment. CEQA Guidelines Section 15064 states that the determination is to be made by the lead agency based on scientific and factual data, to the extent possible.

Significant and Unavoidable. An impact is considered significant and unavoidable when the result is a substantial effect on the environment for which mitigation has not been identified as feasible to reduce the impact to a less-than-significant level, or mitigation is identified but would not fully mitigate the impact to acceptable levels. Mitigation may be required to reduce the impact as much as possible, even if the impact would remain significant and unavoidable.

A cumulative discussion of the impacts of the proposed project in conjunction with other development in the region is included in Section 5.4 of Chapter 5, Cumulative Impacts and Other CEQA Sections, of this EIR.

ANALYSIS APPROACH

For some resource topics, either no impact would occur related to the modifications associated with the proposed project or the 1996 EIR adequately and sufficiently describes potential impacts. This is further described in each section of this chapter. The 1996 EIR was a comprehensive EIR analyzing all topics required under CEQA at the time with the exception of population and housing; energy and mineral resources; and public services and utilities – which were identified in the 1996 Initial Study as being unaffected by the project.

Pursuant to PRC Section 21166 and CEQA Guidelines Section 15162(a), the CEQA analysis will focus on whether the proposed modifications to the project would result in any of the following:

- 1) Substantial changes in the project, subject to a two-part test (Section 15162(a)(1)):
 - a. Result in new significant effects, or result in substantial increase in severity of previously identified significant effects, that
 - b. Result in major revisions of the previous EIRs.
- 2) Substantial changes in the circumstances under which the project will be undertaken, subject to a two-part test (Section 15162(a)(2)):
 - a. Result in new significant effects, or result in substantial increase in severity of previously identified significant effects, that
 - b. Result in major revisions of the previous EIRs.
- 3) New information, subject to the following multi-part test (Section 15162(a)(3)):
 - a. The new information is of substantial importance, and
 - b. It was not known and could not have been known (with the exercise of reasonable diligence) at the time of the previous EIRs, and
 - c. The new information shows any of the following:
 - i. The project will have one or more significant effects not discussed in the previous EIRs, or
 - ii. Significant effects examined in the previous EIRs will be substantially more severe, or
 - iii. Mitigation measures or alternatives previously found not be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the applicant has declined to adopt them, or

- iv. Mitigation measures or alternatives considerably different from those analyzed in the prior EIRs would substantially reduce one or more significant effects but the applicant has declined to adopt them.

The following proposed physical changes in the project could result in changes to previously identified impacts and mitigation measures:

- Mine for a longer period of time (20 additional years).
- Mine a larger total tonnage than originally analyzed (21,336,426 additional tons mined; 19,936,119 additional tons sold)¹.
- Disturb a larger area at one time during mining and reclamation operations (167 to 285 acres at a time compared to the 126 acres as assumed in the 1996 EIR).
- Use of a larger area for processing (eastern 31.9 acres of Phase 2 and all 100 acres of Phase 3, in addition to 30-acre plant site).
- Delay reclamation of some areas (up to 36 years) and completion of final reclamation later (20 additional years) than originally analyzed.
- Modify phase boundaries and eliminate Phase 7 located on the west side of I-505.
- Reclamation of an additional 100 disturbed acres not previously identified.
- Less reclamation to agriculture (57 fewer acres).
- More reclamation to open water lake (51 additional acres) with different configuration that separates approximately 2,340 linear feet of the reclaimed lake from restored riparian habitat along the creek.
- More reclamation to habitat (8 additional acres).²
- Less reclamation to tree crops (138 fewer acres) and more reclamation to row crops (111 additional acres).
- Other specific changes to reclamation design such as steeper transition slopes and more limited reclaimed habitat diversity and type.

¹ The operation is approved to mine a total of 32,170,000 tons and the project would increase that total to 53,536,426 tons resulting in a difference of 21,366,426 tons mined. The operation is approved to sell a total of 26,700,000 tons and the project would increase that total to 46,636,119 tons resulting in a difference of 19,936,119 tons sold. See Table 3-10.

² Approved reclamation plans include 61 acres of habitat; approved Habitat Restoration Plan (HRP) includes 166 acres of habitat. This difference is resolved with the proposed project which would incorporate all acreage requiring reclamation into the approved reclamation plans. The proposed reclamation plans and proposed HRP both include 174 acres of habitat. This reflects an increase of 113 acres on the reclamation plan sheets but an actual increase of 8 acres (5%) of habitat.

The following changes in circumstances under which the project has been undertaken could result in changes to previously identified impacts and mitigation measures:

- The County completed a mandatory update of the CCAP (including related County regulations) in December of 2019 (CCAP Update FEIR SCH #2017052069). The Update was comprised of an integrated set of modifications to the CCAP and the ordinances that implement it, to reflect changing conditions in the creek, analysis of monitoring data collected as a part of the program, new regulatory requirements, and clarifications and corrections. The proposed changes fall into three categories: 1) updates to include history and context for what has occurred under the program since 1996, including updates related to the regulatory framework and corrections of errata; 2) clarifications that better describe the intent of the program relative to the text included in the original documents; and 3) other changes to the program. Key proposed changes included: 1) increase of the in-channel material removal limit from 210,000 tons to 690,800 tons annually; 2) identification of an additional 1,188 acres within the planning area to be rezoned to add the Sand and Gravel Reserve Overlay (SGRO) zone, which allows for future possible aggregate mining; and 3) extension of the plan horizon year to 2068.
- Changes in General Plan policy.
- Effects on identified special status species not previously considered.
- Inconsistency with County requirements, and underperforming design and maintenance, related to hedgerows.
- Changes in the conditions in the creek channel over time, including erosion and installation of rock riprap to protect mining facilities.
- The applicant has determined there will not be enough topsoil and overburden to undertake the amount of reclaimed agriculture originally approved.
- Reclamation of early phases to productive agriculture as mining has progressed has not occurred.
 - The 1996 project description assumed reclamation would occur as each phase is mined (DEIR p. 3-17 to 3-19).
 - The 1996 EIR assumed a maximum of 126 acres out of production in any given year (DEIR 4.5-14).
 - The 2081 MOU (executed in September 1997) assumed maximum disturbance in any one year of 120 acres (see Section 4.1 of that permit).
 - In 2022, the County determined that approximately 510 acres of the 600-acre mining site was disturbed and/or being mined.
 - Overmining and mining inconsistent with the approved reclamation plans has resulted

in more area disturbed at one time than assumed originally and encroachment into the minimum 200-foot creek setback area.

- Without the requested 20-year extension the applicant would be unable to mine available deposits.

The following new information has emerged since project approval that could result in change to previously identified impacts and mitigation measures:

- Effects of climate change and greenhouse gas emissions
- Effects on tribal cultural resources
- Effects from wildfire
- Effects on energy
- Effects of toxic air contaminants (TACs)
- Effects on vehicle miles traveled (VMT)

Each topical section in this chapter presents the conclusions of the 1996 EIR impact analysis regarding resource impacts and includes an evaluation of whether proposed changes in the project, the circumstances under which the project will be undertaken, and/or new information are substantial and would result in new significant effects or a substantial increase in the severity of previously identified significant effects.

Environment and regulatory setting information that is applicable to the proposed project or has changed since the 1996 EIR is provided. Potential impacts are quantified where needed to determine whether new or substantially more severe significant impacts could occur. The impact conclusions from the 1996 EIR and the proposed project are compared to determine if the proposed project could result in a new or substantially more severe potentially significant impact. Applicable mitigation measures from the 1996 EIR are summarized, and modified or new mitigation measures are identified, where feasible, to reduce new or substantially more severe potentially significant impacts to acceptable levels. In some instances, new mitigation measures are identified, based on new guidance from regulatory agencies, to update prior mitigation measures from the 1996 EIR.

Mitigation for project impacts can include avoiding the impact (not taking certain actions), minimizing the impact (limiting the magnitude), rectifying the impact (through repair, rehabilitation, or restoration), reducing the impact over time (through operations during the project), and compensating for the impact (by replacing or providing substitute resources or environments). See CEQA Guidelines Section 15370.

ENVIRONMENTAL ISSUES ADDRESSED IN THIS DRAFT SEIR

Sections 4.1 through 4.8 of this chapter are provided to substantiate the determination to prepare this Draft SEIR, pursuant to Section 15162 of the CEQA Guidelines:

- 4.1 Agricultural and Forestry Resources
- 4.2 Air Quality, Greenhouse Gases and Energy
- 4.3 Biological Resources
- 4.4 Cultural Resources and Tribal Cultural Resources
- 4.5 Geology and Soils, Mineral Resources, and Paleontological Resources
- 4.6 Hydrology and Water Quality
- 4.7 Noise and Vibration
- 4.8 Transportation and Circulation

For each topic and potential impact, the relevant proposed changes to the project, changes in the circumstances under which the project would be carried out, and new information is discussed, potential new or more severe impacts are identified, and revised or new mitigation measures are proposed, as necessary, to reduce potential impacts, where appropriate. Section 4.9 of the Draft SEIR provides a discussion for the CEQA topics determined to have no impact or a less-than-significant impact with continued implementation of required conditions of approval and mitigation measures.

FORMAT OF ISSUE SECTIONS

The topical sections are comprised of four primary parts: (1) Introduction, (2) Existing Environmental Setting, (3) Regulatory Context, and (4) Impacts and Mitigation Measures. An overview of the general organization and the information provided in the two parts is provided below:

Introduction. The Introduction describes the purpose of the section, provides a list of project-specific reports used in the analyses, and identifies any comments made in response to the March 2021 Notice of Preparation (NOP) for the project. The NOP for the proposed project, which was released in March 2021, is contained in Appendix A, and comments on the NOP are contained in Appendix B of this Draft SEIR.

Existing Environmental Setting. The Existing Environmental Setting section for each environmental topic generally provides a description of the applicable physical setting (e.g., existing land uses, existing traffic conditions) for the project site and its surroundings. An overview of regulatory considerations that are applicable to each specific environmental topic is also provided. Where appropriate, the 1996 EIR environmental setting information has been supplemented and updated per current conditions.

CEQA Guidelines Section 15125 states: “An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives.”

Section 15125 also provides: “Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and

regional perspective.” The NOP for the proposed Project was published in March 2021. Unless otherwise stated, each of the topical sections in this chapter includes a discussion of physical conditions in the vicinity of the project site on or around March 2021.

Regulatory Context. The Regulatory Context section for each topic provides the relevant federal, State and local regulations relevant to each environmental topic. The section focuses on those regulations that are new, revised or significantly updated since publication of the 1996 EIR.

Impacts and Mitigation Measures. The Impacts and Mitigation Measures section for each topic presents a discussion of the impacts that could result from implementation of the proposed project. The section identifies and compares the current County standards of significance to the 1996 EIR standards for the impact topic; identifies the 1996 EIR impacts, mitigation measures and subsequent conditions of approval and provides a discussion of the current project compliance with the conditions of approval; and evaluates whether proposed changes in the project, the circumstances under which the project will be undertaken, and/or new information are substantial and would result in new significant effects or a substantial increase in the severity of previously identified significant effects. Applicable mitigation measures from the 1996 EIR are summarized, and modified or new mitigation measures are identified, where feasible, to reduce new or substantially more severe potentially significant impacts to acceptable levels. In some instances, new mitigation measures are identified, based on new guidance from regulatory agencies, to update prior mitigation measures from the 1996 EIR.

Impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented following the same format as the 1996 EIR. Impacts and mitigation measures are numbered consecutively. A statement of the level of significance of impact prior to mitigation is included at the end of each impact discussion. If an impact is determined to be significant, mitigation is included in order to reduce the specific impact to the extent feasible.

As noted above, each mitigation measure adopted as a part of the certified Final 1996 EIR became conditions of approval. The appropriate condition number, wording, and current status are identified in this Draft SEIR.

4.1 AGRICULTURAL AND FORESTRY RESOURCES

4.1.1 INTRODUCTION

This Agricultural and Forestry Resources section of the Draft SEIR describes the agricultural characteristics of the project site and assesses the effects of the proposed project on the agricultural resources of the County. Forestry resources are a CEQA topic that was included with agricultural resources in the CEQA Guidelines 2018 update. While there are scattered wooded areas along the Cache Creek riparian corridor, there are no private timberlands or public lands with forests in Yolo County, as mapped by the California Department of Fish and Wildlife. Therefore, the topic of forestry resources is not further considered in this Draft SEIR.

Information for this section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR³, the 1996 EIR⁴, and the following project-specific reports:

- Site-Specific Soil Assessment and Productivity Classification of the Agricultural Horizon Soils for the Solano Long-Term Off-Channel Mining Area” prepared by Ag West Resources, November 1, 1995.
- Soil Fertility Results Report Letter, prepared by Dellavalle Laboratory, Inc, April 2017.⁵

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of the proposed project. No written comments concerning agricultural resources were received by the County (NOP comment letters are included in Appendix B of this Draft SEIR). The following comments related to agricultural resources were expressed at the NOP public scoping meeting held on March 11, 2021, and responses are provided in *italics*.

- Conversion of prime farmland to non-agricultural uses.
- Reclamation to agriculture and potential loss of productivity.
- Mitigation for loss of farmland.

These comments are addressed in Section 4.1.4, Impacts and Mitigation Measures.

The following subsections describe the existing agricultural setting of the County and specifically in the lower Cache Creek area, the applicable regulatory framework, standards of significance

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

⁵ Dellavalle Laboratory, Inc, 2017. Soil Fertility Results Report Letter. April 4.

used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.1.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes updated information that has become available since those reports were completed.

Description of Regional Environment

The 1996 EIR described the regional environment associated with agricultural resources and the CCAP EIR updated that information relative to current information. In summary, 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 2021) were almonds, processing tomatoes, grapes, organic crops, rice, walnuts, hay/alfalfa, sunflower seed, pistachios, and apiary. The County continues to see growth in higher value crops, organic products, wine grapes and wineries, olives, and specialty products such as grassfed beef. Dominant crop types within the CCAP area include wheat, tomatoes, seed crops, and almonds. Agriculture continues to be the dominant land use within the CCAP planning area, and farmlands are generally flat land composed of irrigated prime and nonprime soils, much of which is currently under intensive row crop or orchard cultivation.

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.

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, including Prime farmland, Unique farmland, and Farmland of Statewide Importance.

Description of Local Environment

The local agricultural environment has not changed significantly since the 1996 EIR. The CEMEX project site is located on the relatively flat terrain of an alluvial terrace formed along Cache Creek. The south bank of the creek forms the northern boundary of the project site. The creek bank

supports moderately well-developed riparian vegetation. The approved mining areas are located on the alluvial terrace surface, which generally slopes eastward from an approximate elevation of 150 feet above mean sea level (msl) at the southwest corner of mining area Phase 7 to 124 feet (msl) at the northeastern corner of proposed mining area Phase 6 (Figure 3-2). This general topography of the terrace surface is interrupted by existing mining and reclamation areas within the active mining areas of the project site.

Current Agricultural Use

As stated in the 1996 EIR, the agricultural fields at the project site currently support production of crops commonly grown in the lower Cache Creek basin. The common crop types, which are typically planted under crop rotation schedules, are: tomatoes, winter wheat, barley, safflower, corn, sunflowers, and alfalfa.

Farmland Designations and Soil Types

Similar to the crop types grown on the site, the soil types identified in the 1996 EIR for the areas to be mined and reclaimed on the project site have not changed significantly. Additionally, soil sampling was done in 2017⁶ on the piles of overburden soil and an open field designated for agricultural crops. The samples were analyzed for fertility assays and the overburden pile soil samples were also analyzed for pesticide residues, specifically by EPA Method 8141A [formerly EPA Method 8140, organophosphate (OP) and organonitrogen (ON) insecticides, herbicides, and fungicides] and EPA Method 8151A [formerly EPA Method 8150, phenoxy and chlorinated herbicides]. The sampling findings determined that there are no limitations to using any of the overburden or open field soils for agricultural crop production. Once the overburden soils are spread on the field, it is recommended to sample the resulting soils in the field to best determine crop fertility needs.

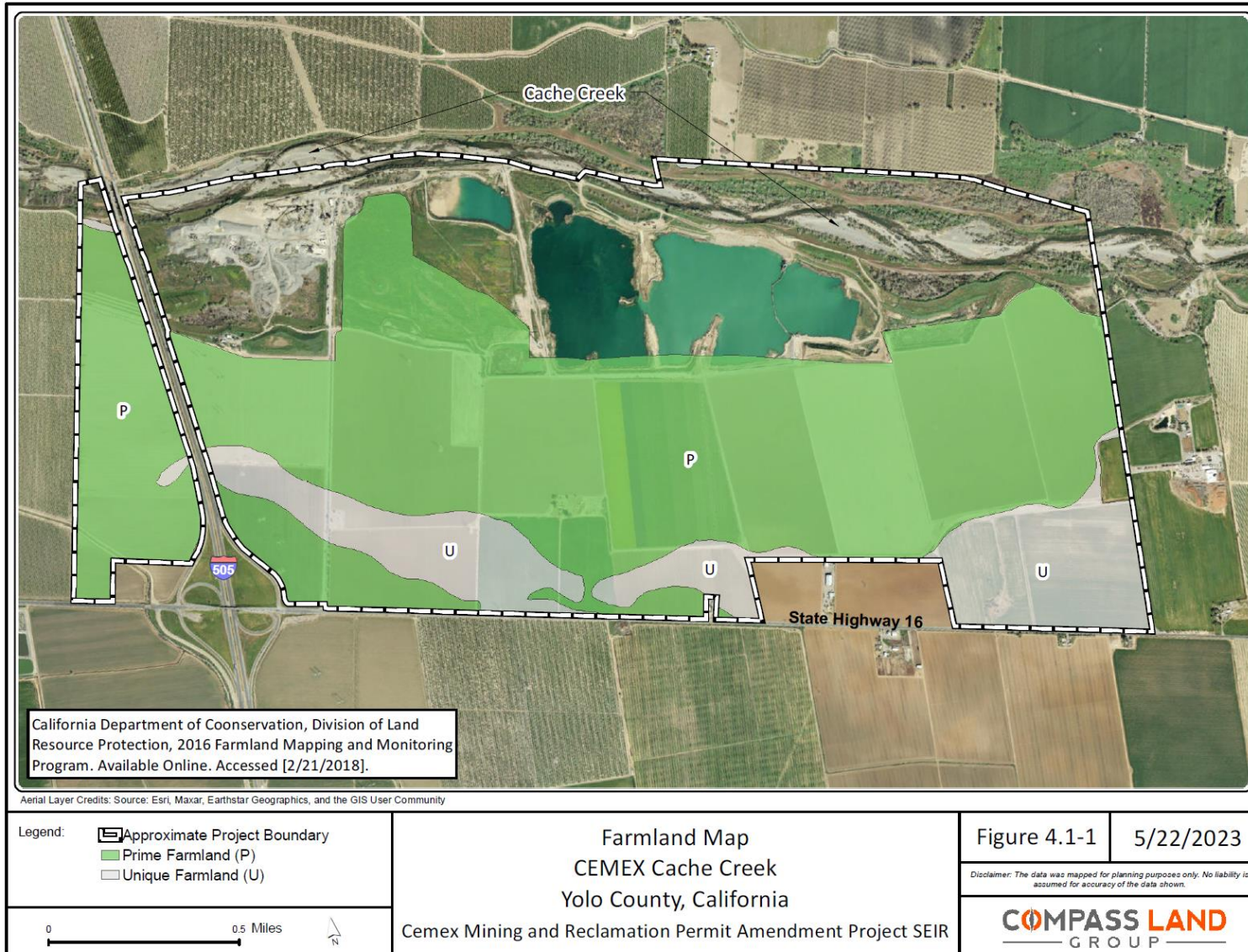
An updated farmland map that identifies locations of the Prime Farmland and Unique Farmland on the project site was prepared in 2018 and is shown in Figure 4.1-1.

Approved Agricultural Reclamation

Per the 1996 EIR, post-reclamation uses within the mining areas would include row crop agriculture (223 acres), tree crop production (223 acres), four lakes (161 acres), wildlife habitat (65 acres) and slopes and roads (26 acres). The 1996 EIR found that a total of 252 acres of farmland would be permanently converted to non-agricultural use as part of the project. This acreage was further reduced by 90 acres to reflect improvements to reclaimed soil conditions that would exceed the quality of original native conditions. The County has previously determined this 90-acre credit was derived from an overlay of the area of proposed agricultural reclamation on the portions of the property classified as having “severe” and “very severe” limitations. Soils conditions were documented in the “Site-Specific Soil Assessment and Productivity Classification of the Agricultural Horizon Soils for the Solano Long-Term Off-Channel Mining Area” prepared November 1, 1995, by Ag West Resources. This report (pages 25-26) identified where there were/are soils with severe limitations (Class III), very severe limitations (Class IV), and excessive

⁶ Dellavalle Laboratory, Inc, 2017. Soil Fertility Results Report Letter. April 4.

**Figure 4.1-1
 Farmland Map**



Boron levels. Therefore, Mitigation Measure 4.5-2a required an offset of 162 acres (252 ac. - 90 ac. = 162 ac.) to be protected offsite.

4.1.3 REGULATORY CONTEXT

The 1996 EIR and/or CCAP Update FEIR provided descriptions of the California Surface Mining and Reclamation Act (SMARA), the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the California Land Conservation Act, and the Williamson Act Program, as related to agricultural regulations. Where relevant that information is summarized here.

Federal Regulations

There have been no changes in federal regulations that are applicable to agricultural resources within the project area since certification of the 1996 EIR and no changes to federal regulations generally since certification of the CCAP Update FEIR.

State Regulations

There have been no changes in State regulations that are applicable to agricultural resources within the project area since certification of the 1996 EIR and no changes to state regulations generally since certification of the CCAP Update FEIR.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.

2030 Countywide General Plan

Subsequent to preparation and certification of the 1996 EIR, the County updated its General Plan in 2009. The 2030 Countywide General Plan contains the following goals, policies, and actions related to agricultural 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 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-1.4: 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.
- 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.

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- 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)
- 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)
- Action CO-A40: Encourage recycling of aggregate materials and products. (Policy CO-3.1)
- Action CO-A41: Regularly review regulations to ensure that they support an economically viable and competitive local aggregate industry. (Policy CO-3.1)
- 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)
- 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)
- 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)
- 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)

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- 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. (Policy CO-3.1)
 - 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)
 - Action CO-A54: Implement the Cache Creek Area Plan (Policy CO-3.2).
 - 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.

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. The CCAP Update incorporated these changes into the CCAP plans, policies, and regulations, where relevant, 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 (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 establishes 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.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to agricultural resources:

Section 10-4.103. Purpose. [excerpt]

The purposes of this chapter are as follows:

- (a) The extraction of sand and gravel is essential to the continued economic wellbeing of the state and to the needs of society. Although the County encourages the production of sand and gravel, consideration must also be balanced by other societal values, including but not limited to recreation, water resources, wildlife, agriculture, and aesthetics; ...

Section 10-4.220. Prime Agricultural Land.

"Prime agricultural land" shall mean all land which meets the definition of prime agricultural land set forth in Section 51201 of the Government Code of the State

as administered by the County in the administration of its agricultural preserve program.

Section 10-4.440. Wildlife Habitat.

Avoid disturbance to important wildlife habitat features such as bird nesting trees, colonial breeding locations, elderberry host plants for Valley Elderberry Longhorn Beetle, and mature riparian forest and oak woodland habitat. This shall include sensitive siting of haul roads, trails, and recreational facilities away from these features. Suitable habitat for special-status species shall be protected and enhanced, or replaced as a part of mitigation plans prepared by a qualified biologist where necessary, and through compliance with the Yolo HCP/NCCP for special-status species covered by that Plan. Mining and reclamation activities shall be performed in accordance with the State Fish and Wildlife Code, Migratory Bird Treaty Act, and other applicable regulations to protect bird nests when in active use.

Native-planted hedgerows and/or other vegetated buffers shall be included between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.

Section 10-4.701. Annual Reports: Contents.

Every surface mining operator shall submit an annual report of surface mining operations no later than November 1 of each year, describing the activities of the previous twelve (12) months. Annual reports shall no longer be required, once final reclamation has been completed and financial assurances have been released. Operators shall submit one hard copy and one electronic copy to the County. Such reports shall contain the following information:

- (a) A site plan submitted in the form prescribed by the Director, including all property proposed to be included in the reclamation plan, drawn to a scale of one-inch equals one-hundred feet (1" = 100'), or other scale acceptable to the Director for larger holdings, and showing the following information:
 - (1) Property boundaries and the boundaries of permitted mining areas, including the depiction of separate mining phases;
 - (2) The existing contours;
 - (3) Contours which show the areas and depth of mining which have occurred since the previous annual report;

- (4) Identification of any significant changes in the topography, such as bank failures, levee breaches, extensive erosion, etc. which have occurred since the previous annual report;
- (5) Identification of erosion control structures, levees, berms, stockpiles, haul roads, settling ponds, habitat avoidance areas, and processing facilities;
- (6) The extent of areas reclaimed since the previous annual report;
- (7) The extent of any borrow areas, where topsoil and overburden are excavated for use in the reclamation of mined lands; and
- (8) Updated graphic depictions of the control cross-sections approved in the surface mining permit application.

The site plan shall include a certificate from a licensed land surveyor or registered civil engineer certifying that the site plan and cross-sections were prepared by or under the direct supervision of the surveyor or engineer;

- (b) A statement of the total amount of minerals produced since the date of the initial permit approval and since the date of the preceding annual report. Such information shall be consistent with the data submitted to the Department, as required in Section 2207 et seq. of Chapter 2 of Division 2 of the Public Resources Code of California. Production information shall be considered confidential under Section 10-4.901 of this chapter. Such reports shall be submitted as a declaration under penalty of perjury;
- (c) A statement of the total amount of concrete and asphalt materials recycled since the date of the preceding annual report, and a statement of the total amount of aggregate removed from Cache Creek as a result of channel maintenance and reshaping activities in accordance with the CCRMP;
- (d) A report prepared by a qualified hydrologist describing the data obtained from the on-site groundwater monitoring program, prepared in accordance with Section 10-4.417. The report shall recommend appropriate remedial measures if contamination in exceedance of established thresholds is indicated;
- (e) A report describing the previous year's crop yields on any land in the process of being reclaimed to agriculture in accordance with the approved reclamation plan. The report shall include a soil analysis and appropriate remedial measures prepared by a qualified agronomist if crop yields do not meet the production standards set forth in the approved reclamation plan;

- (f) A report prepared by a qualified biologist describing the density, coverage, and species-richness of any on-site areas that are being revegetated with plants other than agricultural crops in accordance with the approved reclamation plan. The report shall compare the observed data with the performance standards set forth in the approved reclamation plan and shall recommend remedial measures if the previous year's revegetation efforts have not been successful;
- (g) A report prepared by a Registered Geologist, a Licensed Geotechnical Engineer, or a Registered Civil Engineer describing the remedial measures necessary to remediate any slope failures, levee breaches, or other topographical problems referred to in the site plan above;
- (h) A report describing the extent of mining carried out over the previous year and the conformance of the operation with the approved reclamation timetable and/or phasing plan. Said report shall also describe the proposed extent of operations to be carried out over the following year;
- (i) A report describing the compliance of the surface mining operation with the approved conditions of approval;
- (j) A table, matrix, or report identifying all adopted CEQA mitigation measures by number and text, and describing compliance with these measures, pursuant to the Mitigation Monitoring Program adopted for the project; and
- (k) A statement describing the status of any permits or approval issued by other agencies of jurisdiction; and
- (l) A report describing the compliance with the applicable terms of the approved Development Agreement.

Surface Mining Reclamation Ordinance

Title 10, Chapter 5 of the Yolo County Code contains the Surface Mining Reclamation Ordinance (Reclamation Ordinance), which provides the following requirements relevant to agricultural resources:

Section 10-5.103. Purposes.

The purposes of this chapter are as follows:

- (a) The reclamation of mined lands is necessary to prevent or minimize the adverse effects of mining on the environment and to protect the public health and safety;

- (b) The reclamation of mined lands shall provide for the protection and subsequent beneficial use of mined lands. However, mining takes place in diverse areas, with significantly different geologic, topographic, climatic, biological, and social conditions, so that the methods and operations of reclamation plans may vary accordingly to provide for the most beneficial reclamation of mined lands;
- (c) In order to provide for reclamation plans that are specifically adapted to the requirements of particular mined lands; and to ensure that mined land is reclaimed to end uses such as agriculture, habitat, groundwater recharge, flood control, and channel stabilization in a consistent manner to maximize their overall management; this chapter imposes performance standards by which reclamation methods and operations shall be measured;
- (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) Native fish, wildlife, invertebrate, 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 and recreation while protecting, habitat, recreation, and protecting 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 10-5.221. Prime Agricultural Land.

"Prime agricultural land" shall mean all land which meets the definition of prime agricultural land set forth in Section 51201 of the Government Code of the State as administered by the County in the administration of its agricultural preserve program.

Section 10-5.509. Fence Row Habitat.

Where fence row or field margin habitat previously existed, reestablish similar habitat as part of reclamation to agricultural use to replace and improve the wildlife habitat value of agricultural lands, allowing for the reestablishment of scattered native trees, shrubs, and ground covers along the margins of reclaimed fields. Reestablished habitat can be located in areas other than where it occurred originally. Restoration plans shall specify ultimate fence row or field margin locations, identify planting densities for trees and shrubs, and include provisions for monitoring and maintenance to ensure establishment. Restoration plans should be reviewed and approved by the TAC.

Section 10-5.512. Field Releveling.

The operator shall retain a Licensed Land Surveyor or Registered Civil Engineer to resurvey any areas reclaimed to agricultural usage after the first two (2) crop seasons have been completed. Any areas where settling has occurred shall be relevelled to the field grade specified in the approved reclamation plan.

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.

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 parcel reclaimed to agriculture in Williamson Act contract, or other equivalent long-term easement or deed restriction satisfactory to the County, for the purpose of protecting the agricultural use of the reclaimed land in perpetuity.

Section 10-5.522. Phasing Plans.

All proposed mining and reclamation plans shall present a phasing plan for mining and reclamation activities. The phasing plan shall be structured to minimize the area of disturbed agricultural lands during each mining phase, and encourage the early completion of the reclamation of agricultural land.

Section 10-5.523. Planting Plans.

Site-specific planting plans shall be developed by a qualified biologist for proposed habitat reclamation projects. Restoration components of reclamation plans shall include provisions to enhance habitat for special-status species, where feasible.

Native-planted hedgerows and other vegetated buffers shall be included between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.

Section 10-5.525. Farmland Conversion.

All mining permit applications 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 farmland in these categories that would be converted to non-agricultural use, the reclamation plan shall present provisions to offset the conversion of these lands, at a ratio consistent with Section 8-2.404 (Agricultural Conservation and Mitigation Program) of the County Code. This mitigation requirement may be 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.

- (a) Implementation 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. The operator shall be encouraged to target property "at risk" of conversion to non-agricultural uses in selecting areas for permanent protection. 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.
- (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.

Section 10-5.531. Soil Ripping.

Where areas are to be reclaimed to agricultural usage, all A and B horizon soil shall be ripped to a depth of three (3) feet after every two (2) foot layer of soil is laid down, in order to minimize compaction.

Section 10-5.532. Use of Overburden and Fine Sediments in Reclamation.

Sediment fines associated with processed in-channel aggregate deposits (excavated as a result of maintenance activities performed in compliance with the CCIP) may be used in the backfill or reclamation of off-channel permanent lakes, for in-channel reshaping or habitat restoration, and/or as a soil amendment in agricultural fields provided the operator can demonstrate that no detrimental sediment toxicity exists (consistent with the state's Stream Pollution Trends Monitoring Program protocols) and fine-grained soil (<63 micron) do not exceed 0.4 mg/kg total mercury.

The operator shall use overburden and processing fines whenever possible to support reclamation activities for pit lakes. If topsoil (A-horizon soil), formerly in agricultural production, is proposed for use within a pit lake or its drainage area, the operator must sample the soils prior to placement and analyze them for pesticides and herbicides (EPA Methods 8141B and 8151A, or equivalent) as well

as for total mercury (EPA Method 7471B, or equivalent). The operator shall collect and analyze samples in accordance with EPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods, SW-846 (as updated). Topsoil that contains pesticides or herbicides above the Maximum Contaminant Levels for primary drinking water (California Code of Regulations), or that contains fine-grained soils exceeding on average 0.4 mg/kg total mercury shall not be placed in areas that drain to the pit lakes.

Land reclaimed to a subsequent use that includes planting of vegetation (e.g., agriculture, habitat) shall be provided an adequate soil profile (i.e., depth and texture of soil) to ensure successful reclamation. At the discretion of the Director and at the operator's sole expense, the proposed reclamation plan for the project may be peer reviewed by an appropriate expert/professional, and recommendations, if any, shall be incorporated into the project as conditions of approval.

Agricultural Conservation and Mitigation Program

Section 8-2.404 of the Yolo County Code (Agricultural Conservation and Mitigation Program) provides the following requirements for offsets to mitigate for conversion of farmland to non-agricultural uses: (a) preservation of farmland at a 3:1 ratio for conversion of prime farmland; and, (b) 2:1 for projects that convert other farmland to non-agricultural uses. The program requires all agricultural mitigation to occur within two miles of a city or certain unincorporated towns, or within an area designated by the Board of Supervisors, and allows adjustments to the mitigation ratio down to a 1:1 ratio based on conservation easement placement in certain specified priority zones. The In-Lieu Agricultural Mitigation Fee (as described in Section 8-2.405) is available as an alternative to purchasing a conservation easement for projects that convert less than twenty acres of agricultural lands to nonagricultural uses.

Before the 2019 update to the CCAP, mining activities under the CCAP were subject to separate mitigation requirements and were exempted from Section 8-2.404's expanded mitigation requirements. The CCAP Update was adopted in December 2019 and included amendments to Section 10-5.525 (Farmland Conversion) of the County Reclamation Ordinance that merge and clarify the requirements for agricultural mitigation offsets for mining projects. Section 10-5.525 establishes requirements to compensate for the permanent loss of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance that are equivalent to the countywide requirements identified in Section 8-2.404 of the County Code, but modified to reflect the unique requirements and outcomes of the CCAP.

Section 10-5.525 generally applies the same 3:1 and 2:1 mitigation ratio requirements from Section 8-2.404 that apply elsewhere throughout the County, including the ability to reduce the ratio to 1:1 in the priority zones, but also allows mining operations to demonstrate equivalency (down to a minimum 1:1 base mitigation ratio) based on several options that are identified in Section 10-5.525. These options include improvements to farmland quality, permanent easements, dedication of additional net gains (such as land, funding, or equivalent improvements consistent with the County's net gains goals) beyond those already required under the CCAP

program, and/or other benefits consistent with the Cache Creek Parkway that would not otherwise already be achieved through agreements and obligations that are already a component of the program.

Section 10-5.525 allows the County to accept additional net gains as an alternative to agricultural mitigation ratios in excess of 1:1, subject to a finding of “equivalency” between the two. County Code indicates that the mitigation requirement may be satisfied using a variety of flexible options, 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.

4.1.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the changes in the proposed project’s potential impacts related to agricultural resources. A discussion of the project’s impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. An agricultural resources impact is considered significant if the proposed project 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.
- f) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to agricultural resources.

As noted previously, there are no private timberlands or public lands with forests in Yolo County; therefore, potential impacts to forest land related to criteria “c” and “d” would not occur. As a result, those criteria and potential forest land impacts are not further evaluated in this document.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is information (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a significant effect on agricultural resources if it would:

- Permanently convert prime agricultural soils to a nonagricultural use.

Conversion of prime agricultural soils is addressed by criterion “a” above.

- Cause the loss of agricultural productivity or crop values that represent a major proportion of the County's production or value of crops.

Impacts related to the loss of agricultural productivity are addressed by criteria “a” and “e” above.

- Impair or degrade the existing productivity of agricultural soils, or adversely affect agricultural resources or operations, in the planning area or County.

Impacts associated with the impairment or degradation of the existing agricultural resources are addressed by criteria “a” and “e” above.

- Conflict with adopted plans or policies of State and other agencies that seek to preserve or protect agricultural soils, lands, and operations.

Impacts associated with a conflict with adopted plans or policies are addressed by criterion “f” above.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are summarized in Table 4.1-1. The table provides a discussion of the status of each mitigation measure.

Table 4.1-1: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures and Discussion
4.5-1	The proposed project would result in the temporary loss of agricultural production during mining and reclamation. This is considered to be a less-than-significant impact.	No mitigation measures for this impact were originally required. In reaching that conclusion, the 1996 EIR assumed that a maximum of 126 acres would be out of production in any given year and that reclamation would occur as each phase progressed. In 2022, the County determined that approximately 510 acres of the almost 600-acre mining site was disturbed and/or being mined, including the plant site and approved mining.

	<p>The 1996 EIR identified that the project would result in the disturbance of a total of 585 acres of land in agricultural production, acknowledging that the phasing of the project resulted in a smaller area being disturbed at any given time (1996 EIR, Draft, page 4.5-14). Figure 4.1-2 provides an overlay of acres originally in farmland and currently disturbed acres, demonstrating that as of 2022, 310.8 acres of originally productive farmland were out of production. The 1996 EIR (DEIR, pages 4.5-14 through 4.5-15) identified a maximum of 126 acres “out of production in any given year.” Based on this information, the County determined there were 184.8 acres of cropland out of production beyond what was identified in the 1996 EIR (310.8 ac. – 126 ac. = 184.8 ac.). This reflected additional temporary losses of agricultural production than originally anticipated.</p> <p>As summarized in Table 3-4, reclamation by phase was to have occurred sooner under the original approval than as proposed:</p> <p>Phase 1 by 2002 (proposed 2025) Phase 2 by 2012 (proposed 2026 west; 2048 east) Phase 3 by 2017 (proposed 2048) Phase 4 by 2021 (proposed 2039) Phase 5 by 2031 (proposed 2033 -- 2047) Phase 6 by 2026 (proposed 2048) Phase 7 by 2029 (will not be mined) Plant and other areas by 2029 (proposed 2048)</p> <p>It is not unusual for the actual pace of mining to vary in response to market conditions and operator business decisions. However, it is relevant to note that reclamation of early phases to productive agriculture as mining progressed has not occurred as originally assumed:</p> <ul style="list-style-type: none"> • The 1996 project description stated reclamation would occur as each phase is mined (DEIR p. 3-17 to 3-19) • The 1996 EIR calculated a maximum of 126 acres out of production in any given year (DEIR 4.5-14) <p>The 2012 Conservation Easement Grant (Agreement No. 12-49) (2012 Easement) recorded July 30, 2012, provided mitigation for the permanent loss of agricultural land at a 1:1 ratio, as required by Mitigation Measure 4.5-2a and the conditions of approval (1996 EIR Impact 4.5-2 and Condition of Approval No. 48). The Easement prohibited uses inconsistent with the agricultural and open space use of the property, including uses not allowed under the Williamson Act.</p>
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		<p>The easement also provided mitigation for impacts to Swainson’s hawk foraging habitat.</p> <p>Condition of Approval No. 48 requires: “Implement the performance standards included in Sections 10-5.525 of the County Surface Mining Reclamation Ordinance to reduce the impact of the permanent loss of agricultural land. Compliance with this mitigation may be phased to track with the phasing of the mining. Compliance shall be verified by phase (Mitigation Measure 4.5-2a).”</p> <p>CEMEX received credit against permanent impacts to prime farmland for the 446 acres of approved reclaimed agriculture (223 ac. in row crops + 223 ac. in tree crops = 446 ac.), leaving a remainder of 252 acres unmitigated (1996 EIR, Draft, page 4.5-15).</p> <p>This acreage was further reduced by 90 acres to reflect improvements to reclaimed soil conditions that would exceed the quality of original native conditions. The 90-acre credit was derived from an overlay of the area of proposed agricultural reclamation over the portions of the property classified as having severe and very severe limitations. Soils conditions were documented in the “Site-Specific Soil Assessment and Productivity Classification of the Agricultural Horizon Soils for the Solano Long-Term Off-Channel Mining Area” prepared November 1, 1995, by Ag West Resources.</p> <p>Credit for the 90 acres described above brought the required mitigation acreage for permanent loss of farmland to 162 acres (1996 EIR, Draft, Page 4.5-16) (252 ac. – 90 ac. = 162 ac.). Mitigation for this was addressed with the 2012 Easement. A permanent conservation easement was placed on 175 acres of the unmined Hutson parcel to prevent future conversion to non-agricultural uses. The conservation easement was approved and accepted by the Board of Supervisors on August 25, 1998, and recorded on July 30, 2012.</p> <p>The 2012 Easement covers the previously mined and reclaimed western half of Phase 1 (50.8⁷ acres identified as Area E) plus another 125⁸ acres of native (unmined) agricultural land immediately south of Phase 1 (identified as Areas A [25 ac.], B [50 ac.], and C [50 ac.]). The County determined that the various properties in the easement resulted in 10.8 acres more than the 40-ac of reclaimed agriculture and 15.0 acres less than the 140 acres of unmined agriculture</p>
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⁷ This area was 10.8 acres in excess of 40 acres required (correspondence from Elisa Sabatini, Yolo County to Steve Grace, CEMEX dated April 7, 2022, regarding Conditions of Concern)

⁸ This area was 15.0 acres less than 140 acres required (correspondence from Elisa Sabatini, Yolo County to Steve Grace, CEMEX dated April 7, 2022, regarding Conditions of Concern)

		<p>required by the mitigation measure, for a net deficit of 4.2 acres (10.8 ac. – 15.0 ac.).</p> <p>The 2012 Easement results in a potential excess of 13 acres of mitigation for permanent loss of farmland (175 ac. – 162 ac. = 13 ac.). However, the County determined that the following of 50.8 acres in the western portion of Phase 1 was not consistent with the spirit and intent of the easement to mitigate for loss of prime farmland, resulting in a gap of 37.8 additional acres of farmland being temporarily out of agricultural production due to the project (175 ac. Conservation easement – 162 ac. permanent protected farmland required = 13 ac. excess; 13 ac. excess – 50.8 ac. allowed = 37.8 ac.).</p> <p>In summary, there were 184.8 acres of temporary loss of agricultural production on the site in excess of what was identified in the 1996 EIR and 2081 MOU; a potential gap of 4.2 ac. of mitigation for impacts to habitat; and a potential gap of 37.8 acres of permanently protected farmland, for a total acreage of 226.8 acres. To bring the project more into conformance with the original project description and address these impacts, the applicant agreed on June 2, 2022, in conjunction with Minor Modification (ZF #2022-0037) to do the following:</p> <ol style="list-style-type: none"> 1. Place 110 acres in Phase 1 into productive agriculture, thus re-establishing productive agriculture and hawk foraging habitat. This was required as Condition #2 of the 2022 Minor Modification and was completed in December 2022. <p>The selected crop (winter wheat) was accepted by the Yolo Habitat Conservancy on November 22, 2022, as providing suitable foraging habitat for the Swainson’s Hawk.</p> <ol style="list-style-type: none"> 2. Place 50 acres of unmined productive agriculture in the southerly portion of the Hutson parcel, adjoining State Route 16 on the south and the 2012 Conservation Easement boundary on the north, in permanent agricultural easement. The permanent conservation of each acre of non-prime farmland was accepted by the County as offsetting the temporary impact to two acres, resulting in 100 acres of credit from this action. This easement will also provide permanent protection for existing productive agriculture and hawk foraging habitat. This was required as Condition of Approval No. 3 of the 2022 Minor Modification.
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		<p>Establishment of this easement is underway but has not been completed as of March 1, 2024.</p> <p>3. Remove Phase 7 (totaling 15 acres) from the approved mining area which results in a net reduction of the approved mining area and precludes mining impacts from occurring west of I-505. This was required as a part of Condition of Approval No. 8a of the 2022 Minor Modification. This is proposed as a component of the subject project.</p> <p>These actions decrease temporarily disturbed cropland and increase permanent farmland and habitat benefits, with credit totaling 225 acres (110 ac. + 100 ac. + 15 ac. = 225 ac.), thus substantially resolving the identified gaps in mitigation of 226.8, leaving a minor differential of 1.8 acres (225 ac. – 226.8 ac. = -1.8 ac.).</p> <p>As a component of 2022 Minor Modification, CEMEX documented the location of 3.2 acres of hedgerows and 5.7 acres of restored habitat, in partial fulfillment of the obligations for these items under the 2081 MOU. The County accepted the additional acreage of restored habitat identified by CEMEX (5.7 acres of restored habitat area is 2.6 acres in excess of the 3.1 acres documented in the 2081 MOU) as satisfying the 1.8 acre “differential” noted above. Additional discussion of this is provided in Section 4.3, Biological Resources.</p> <p>In addition, the County added the following two relevant conditions with the 2022 Minor Modification:</p> <p>1. Condition of Approval No. 8b: “No later than ten days after the effective date of this approval, CEMEX shall submit an amendment to the pending Major Modification application requesting to modify Mining and Reclamation Permit ZF #95-093 to identify additional proposed actions to resolve temporary impacts to croplands in excess of the maximum of 126 acres assumed in the 1996 project EIR, or request a change in the maximum area of land disturbance identified as an element of the project in the project EIR to a feasible amount and provide substantiation of the operational reasons for the revised acreage maximum.”</p> <p>As a component of the proposed project the applicant has requested a change in the maximum area of land disturbance.</p> <p>2. Condition of Approval No. 9: “The combined 225-acre farmland easement area (2012</p>
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		Easement totaling 175 acres and new conservation easement totaling 50 acres), shall be maintained in active agricultural production unless fallowing is required and/or beneficial for agricultural purposes. Fallowing for non-agricultural purposes is prohibited. Fallowing of any portion of the property for greater than one year requires approval of the Agricultural Commissioner.”
4.5-2	The proposed project would result in permanent conversion of 252 acres of prime farmland to nonagricultural uses. This is considered to be a significant and unavoidable impact.	<p>Mitigation Measure 4.5-2a/Condition of Approval No. 48^a requires:</p> <p>“Implement the performance standards included in Section 10-5.525 of the County Surface Mining Reclamation Ordinance to reduce the impact of the permanent loss of agricultural land. Compliance with the mitigation may be phased to track with the phasing of the mining. Compliance shall be verified by phase.”</p> <p>As described above, recent actions have addressed conformance with this requirement. These actions decrease temporarily disturbed cropland and increase permanent farmland and habitat benefits, and result in excess mitigation of 2.6 acres.</p> <p>These actions constitute changes to the project that would avoid a substantial increase in severity of previously identified significant effects. Therefore, no mitigation is required.</p>
4.5-3	Water or wind erosion of stockpiles of agricultural soils at the project site could result in permanent loss of an important agricultural resource. This is considered to be a less-than-significant impact.	No mitigation measures are required because the analysis relied on compliance with SMARA and County requirements for soil management and erosion control. There are no identified changes in the project, the circumstances under which the project will be undertaken, or new information relevant to this analysis or conclusion.
4.5-4	Proposed post-reclamation uses could result in impacts to agricultural lands and operations on- and off-site. This is considered to be a less-than-significant impact.	No mitigation measures required because no adverse impacts to existing ongoing agricultural operations from proposed agricultural reclamation were identified. There are no identified changes in the project, the circumstances under which the project will be undertaken, or new information relevant to this analysis or conclusion.
4.5-5	Lowering of reclaimed agricultural fields could result in adverse conditions for agricultural production. This is considered to be a significant impact.	<p>Mitigation Measure 4.5-5a/Condition of Approval No. 49^a requires:</p> <p>“Implement the performance standard included in Section 10-5.516 of the County Surface Mining Reclamation Ordinance to mitigate the potential impacts of high seasonal groundwater on crop productivity. The mitigation requires that all reclaimed agricultural surface are a minimum of five feet above the average seasonal high groundwater level. To meet this standard, the elevation of the reclaimed agricultural fields within the Solano West parcel in</p>

		<p>Phase 7 shall be raised two or more feet above the reclaimed surface elevation (Mitigation Measure 4.5-8a).”</p> <p>Under the current approved reclamation plans all reclaimed agricultural fields have been designed to be a minimum of five feet above the average high-water table. The proposed reclamation plans have been reviewed and confirmed to satisfy this requirement; therefore, no revisions are necessary. This mitigation measure will not be fully discharged until reclamation is complete.</p>
4.5-6	The nonrenewal of current Williamson Act contracts for land affected by mining could result in a reduction of land under conservation for agriculture or open space uses. This is considered to be a less-than-significant impact.	No mitigation measures required. There are no remaining active Williamson Act contracts within the project site, and a condition of approval is proposed requiring compliance with Section 10-5.520.2 requiring reclaimed agriculture to be enrolled in Williamson Act and a long-term easement or deed restriction protecting the agricultural use of the reclaimed land in perpetuity.
4.5-7	Proposed reclamation of portions of mined areas to tree crop agriculture could potentially conflict with adjacent agricultural uses. This is considered to be a less-than-significant impact.	<p>No mitigation measures required because no adverse impacts to existing ongoing agricultural operations from proposed tree crops were identified. There are no identified changes in the project, the circumstances under which the project will be undertaken, or new information relevant to this analysis or conclusion.</p> <p>The applicant proposes to decrease reclaimed tree crops by 150 acres and increase reclaimed row crops by 112 acres.</p>
4.5-8	Implementation of the proposed project would contribute to the cumulative loss of agricultural land. This is considered to be a significant and unavoidable impact.	<p>Mitigation Measure 4.5-8a/Condition of Approval No. 50^a requires:</p> <p>“Implement Mitigation Measure 4.5-2a of the (1996) Final EIR for the proposed project.”</p> <p>See discussion above for original Mitigation Measure 4.5-2a and Condition of Approval No. 48.</p> <p>Cumulative impacts related to conversion of protected farmland were analyzed in Impact AG-1 of the certified CCAP Update FEIR. With implementation of Section 10-5.525 of the Reclamation Ordinance this impact was determined to be reduced but not eliminated, and therefore, identified as remaining significant and unavoidable with mitigation.</p>

Source: *Baseline Environmental Consulting, 2021.*

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review as modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this

document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.1-1: Implementation of the proposed project would have the potential to 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. The impact would be *significant*.

In general, the proposed project proposes to continue mining and reclamation activities for an additional 20 years beyond what was described and evaluated in the 1996 EIR, with subsequent approved modifications that are summarized in Chapter 3, Project Description. There would be no changes related to mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, production limits, water use, power use, truck traffic, or hours of operation.

Consistent with existing approvals, after mining is completed, Phases 1, 2, 3, and 4 will receive backfill for reclamation to agriculture. Phases 5 and 6 will be reclaimed to permanent lakes and will not require backfill (unless necessary to flatten perimeter lake slopes for future habitat value). Where required, backfill with overburden and topsoil will be performed using conventional mobile equipment, such as scrapers and bulldozers, that will provide an appropriate level of compaction for the planned end uses. Reclaimed (backfilled) agricultural fields will have lowered elevations relative to original ground. However, as required by Reclamation Ordinance Section 10-5.516, the final distance between lowered surfaces reclaimed to agriculture and the average high groundwater will be a minimum of five feet. Final reclamation, consisting of finish slope reclamation, revegetation and equipment removal will generally commence as soon as final excavation grades are achieved by phase. An estimated time schedule for mining and reclamation is provided in Table 3-8. Table 3-4 and Figure 3-18 provide a comparison of reclamation end uses and acreages for the current entitlements and proposed project.

Figure 4.1-2
Overlay of Acres Originally in Farmland and Currently Disturbed Acres

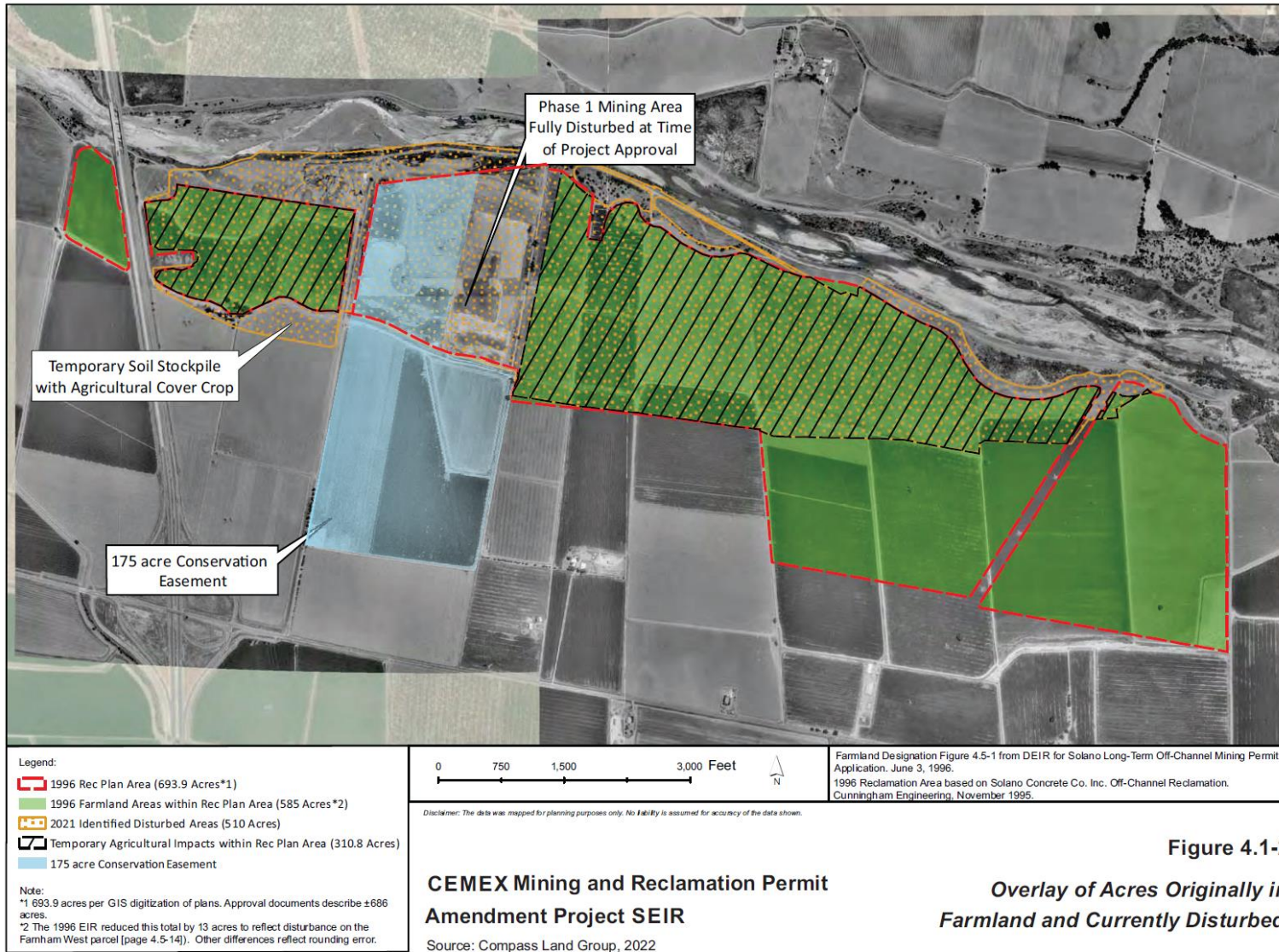


Figure 4.1-2
Overlay of Acres Originally in Farmland and Currently Disturbed

BEC - 9 - SEIR sections responses to first draft\OLD ADEIR2 Figures\working corel files\cdrs\Figure 4-2.cdr

With the exception of proposed minor revisions to the northern mining boundary (in response to County compliance requests), the project proposes mining to occur in substantially the same footprint as approved under existing entitlements and shown on Figures 3-9 through 3-14. The project does not propose any new surface mining disturbances in areas mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the “Yolo County Important Farmland 2016” Farmland Mapping and Monitoring Program (FMMP) map published by the California Department of Conservation, Division of Land Resource Protection (Figure 4.1-1).

However, as described above in Table 4.1-1, reclamation of early phases to productive agriculture as mining progressed did not occur in a manner consistent with the original project approvals and EIR analysis. Also, the applicant has determined there will not be enough topsoil and overburden to undertake the amount of reclaimed agriculture originally approved. Relevant to agricultural resources, the following physical changes proposed as a part of the project would result in changes to previously identified impacts and mitigation measures:

- Simultaneous disturbance of a larger area of 167 to 285 acres at one time, as compared to a maximum of 126 acres at one time assumed in the 1996 EIR, which represents an increase of up to 159 acres (285 ac. – 126 ac. = 159 ac.).
- Reclamation of some areas later (up to 36 years) and final reclamation of the entire site 20 years later than originally analyzed.
- Elimination of Phase 7 located on the west side of I-505.
- Reclamation of an additional 100 disturbed acres not previously identified.
- Less reclamation to agriculture (57.4 fewer acres).
- Less reclamation to tree crops (138 fewer acres) and more acreage to row crops (111 additional acres).

Although the elimination of Phase 7 and the overall increase in reclamation acreage result in positive outcomes, the net effect of the proposed project is that a larger area of agriculture (159 additional acres) will be out of production for a longer period of time (20 years overall and from 3 to 36 years longer by phase) which increases temporary impacts, and fewer mined acres (57.4 acres) will be reclaimed to agriculture as an end use which increases permanent impacts. Table 3-4 identifies proposed changes by phase in mining acreage and end dates, and reclamation acreage and end dates.

As shown in Table 3.7, 6.2 acres of the native habitat enhancement along the south creekbank adjoining the plant site would result from implementation of the proposed HRP. This area (3.7 acres of oak savanna and 2.5 acres of native grassland buffer) provides hedgerow values contributing to future agricultural reclamation of the plant site. As a result, this lessens the impact resulting from the proposed decrease in agricultural reclamation (57.4 ac. – 6.2 ac. = 51.2 ac.). The net loss of 51.2 acres of anticipated future reclaimed farmland must therefore be mitigated

pursuant to Section 10-5.525 of the County Mining Ordinance, which establishes requirements to compensate for the permanent loss of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance that are equivalent to the countywide requirements identified in Section 8-2.404 of the County Code, but modified to reflect the unique requirements and outcomes of the CCAP.

Section 10-5.525 of the Mining Ordinance generally applies the same 3:1 mitigation ratio for loss of prime land and 2:1 mitigation ratio for loss of non-prime land established in Section 8-2.404 that apply elsewhere throughout the County, but allows mining applications to demonstrate equivalency (down to a minimum 1:1 base mitigation ratio) based on several options that are identified in Section 10-5.525 (Farmland Conversion). 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 that would not otherwise already be achieved through agreements and obligations that are already a component of the program. Consistent with Section 10.5-525, Mitigation Measure 4.1-1a below therefore requires 3:1 mitigation for the net reduction of 51.2 acres of anticipated future reclaimed prime farmland. As allowed under the ordinances, this ratio may be reduced to 1:1 in specified circumstances.

As noted above, the net temporary effects of the project are both spatial (i.e., larger area of simultaneous disturbance) and temporal (i.e., reclamation extended out to a later date both overall and in each phase). Phasing of mining and reclamation allows an operator to minimize total area of simultaneous disturbance and maximize the speed of reclamation as mining in each phase is completed. Section 10-5.522 of the Reclamation Ordinance requires a phasing plan structured to minimize the area of disturbed agricultural lands during each mining phase, and encourage the early completion of the reclamation of agricultural land. Under the proposed project, the footprints of each of the phases are individually substantially unchanged. The largest phase size under the original approval was Phase 1 at 140 acres (mining and reclamation) and as proposed would be Phase 6 at 135 acres of mining and 146 acres of reclamation.

However, the availability of soils and overburden needed to reclaim as mining progresses, and the reclaimed end land use also affect the ultimate pace and timing of reclamation. The applicant has indicated that limiting its operations to 126 acres of simultaneously disturbed area is not feasible and is inconsistent with their approved mining and reclamation plans and related permit approvals. Although the applicant is requesting no substantive change in the overall mining area, CEMEX is requesting a larger total area (between 167.4 ac. and 284.6 ac.) of simultaneous disturbance at any one time⁹. As compared to a maximum of 126 acres at one time assumed in the 1996 EIR, this represents an increase of up to 159 acres (284.6 ac. – 126 ac. = 158.6 ac.) in the net total area of simultaneous disturbance. In addition, the length of time of site disturbance would increase by 20 years overall due to the permit extension, and by up to 36 years (worst case) in a portion of Phase 2 due to proposed changes in phasing and end uses.

The mitigation ratios in County Code Section 8-2.404, which address permanent loss of farmland,

⁹ This range is derived from information provided by the applicant December 14, 2022 entitled “Expected Disturbance and Agricultural Production Reclamation Sequence Table”.

would not apply to these temporary impacts because there is no net change in the permanent loss of farmland acres as compared to the original approval and 1996 EIR analysis. The effect of the larger area of disturbance coupled with the disturbance occurring over decades results in a net new impact of the project. This temporary impact is not equivalent to the permanent conversion of farmland, so a ratio less than 3:1 or 2:1 would be appropriate to mitigate for the project's temporary impacts.

In the CEMEX 2022 Minor Modification (ZF #2022-0037), the permanent conservation of each acre of non-prime farmland was accepted as offsetting the temporary impact to two acres of farmland for reclamation that did not occur at the pace required under the approval. In other words, permanent protection of 50 acres of unmined productive agriculture adjoining existing protected land was given 100 acres of credit towards resolving land disturbance that exceeded approved totals. The County finds that this ratio of 0.5:1 is relevant and applicable for the subject temporary impacts to farmland. Therefore, Mitigation Measure 4.1-1b requires the acquisition of 79.5 acres of additional permanent conservation easements to offset the increased effects resulting from the larger net area of temporary disturbance at a 0.5:1 ratio (285 ac. proposed – 126 ac. analyzed in 1996 EIR = 159 additional ac. x 0.5 = 79.5 ac.).

Conclusion

As presented above, there are proposed changes in the project related to decreased reclamation to farmland, delayed reclamation to farmland, and more farmland disturbed at one time, that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measures identified below would compensate for the new impacts that result from the net reduction of 51.2 acres of reclaimed farmland and the 159-acre increase in temporary impacts.

Mitigation Measure 4.1-1a

The applicant shall complete the following subject to approval by the County. Within one year of approval, place a permanent conservation easement on 153.6 acres (51.2 acres of unrealized reclaimed prime farmland at a 3:1 ratio) of equivalent or better unmined prime farmland that has not previously been used for mitigation under any program,

compliant with the requirements of Section 8-2404(d), or compliant with Section 10-5.525(a), (b), (c), or (d). The total acreage placed in permanent easement may be reduced to a minimum of 51.2 acres (1:1 ratio) in accordance with Sections 8-2404(d) or 10-5.525(a), (b), (c), or (d). The proposal and the substantiation in support of finding equivalency shall be provided in writing by the applicant, for review and approval by the Division of Natural Resources.

Mitigation Measure 4.1-1b

The applicant shall complete the following subject to approval by the County. Within one year of approval, place a permanent conservation easement on 79.5 acres (159 acres of net larger simultaneous disturbance at a 0.5:1 ratio) of equivalent or better (quality and capability as compared to original) agricultural land located on unmined agricultural land that has not previously been used for mitigation under any program, compliant with the requirements of Sections 8-2404(d) and 10-5.525.

Significance After Mitigation:

Notwithstanding implementation of Mitigation Measure 4.1-1a and b, the project would result in a net loss of farmland, and therefore this impact is considered significant and unavoidable.

Impact 4.1-2: Conflict with existing zoning for agricultural use, or a Williamson Act contract. The impact is *less than significant*.

The project site is not currently subject to any active Williamson Act contracts. The project site is zoned Agricultural Intensive (A-N) with a Sand and Gravel overlay. The A-N zone allows for mining with a conditional use permit provided that the Sand and Gravel overlay is in place, which it is. Therefore, the project would have no impact in terms of a conflict with Williamson Act contracts or the zoning designation for the site.

Conclusion

As presented above, there are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.1-3: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. The impact would be *less than significant*.

The proposed project is not anticipated to involve other changes to the existing environment which, due to their location or nature, could result in loss of Farmland to non-agricultural use or conversion of forest to non-forest use.

Conclusion

As presented above, there are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.1-4: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to agricultural resources. The impact would be *less than significant*.

Table 4.1-2 below provides an analysis of the proposed project's consistency with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to agricultural resources.

Conclusion

As presented above, there are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.1-2: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>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) ...</p>	<p>The Open Space land use designation protects the in-channel area of Cache Creek.</p> <p>The Agricultural land use designation allows for surface mining. Therefore, the proposed project would be consistent with this policy.</p> <p>The Mineral Resource Overlay identifies existing approved mining operations.</p> <p>The proposed project would be consistent with all land use designations.</p>
<p>Policy AG-1.4 Prohibit land use activities that are not compatible within agriculturally designated areas.</p>	<p>The Agricultural land use designation allows for surface mining. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy AG-1.6 Continue to mitigate at a ratio of no less than 1:1 the conversion of farmland and/or the conversion of land designated or zoned for agriculture, to other uses.</p>	<p>Please see Table 4.1-1 and Impact 4.1-1. Prior conditions of approval, mitigation measures, and new Mitigation Measure 4.1-1a and b, ensure reclamation and/or mitigated at required ratios. Therefore, the proposed project would be consistent with this policy.</p>
<p>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.</p>	<p>The project is the proposed continuation of an existing approved aggregate mining operation. Proposed reclamation would result in reclaimed farmland, wildlife habitat, open water lake, recreation, and other future benefits. Therefore, the proposed project would be consistent with this policy.</p>
<p>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.</p>	<p>The project is the proposed continuation of an existing approved aggregate mining operation. Proposed reclamation would result in reclaimed farmland, wildlife habitat, open water lake, recreation, and other future benefits. Therefore, the proposed project would be consistent with this policy.</p>

<p>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.</p>	<p>The project would include reclamation of the proposed mining area to agriculture, habitat, and recreation uses. Thus, the proposed project would be consistent with this goal.</p>
<p>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.</p>	<p>The proposed project would extend the duration of aggregate mining at an existing mine site, within the CCAP area allowing for removal of aggregate resources from an existing site. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy ED-1.8 Retain and encourage growth in important economic export sectors, including mining, natural gas, tourism and manufacturing.</p>	<p>The proposed project would allow for continued mining extraction to continue on the site. Thus, the proposed project would be consistent with this policy.</p>
<p>Off-Channel Mining Plan</p>	
<p>Goal 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.</p>	<p>The proposed project would involve continued active mining and production of mineral resources on the project site. In addition, the project includes reclamation of the proposed mining area to agriculture and habitat uses. Thus, the proposed project would be consistent with this goal.</p>
<p>Goal 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.</p>	<p>The project would include reclamation of the proposed mining area to agriculture, habitat, and recreation uses. Thus, the proposed project would be consistent with this goal.</p>
<p>Objective 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.</p>	<p>Please see Table 4.1-1 and Impact 4.1-1. Prior conditions of approval, mitigation measures, and new Mitigation Measure 4.1-1a and b would ensure that converted Prime Farmland would be reclaimed to agricultural land or mitigated at required ratios. Therefore, the proposed project would be consistent with this policy.</p>
<p>Objective 5.3-2 Ensure the use of appropriate agricultural management practices in reclaiming mined areas to productive farmland.</p>	<p>Mined land identified for reclamation to agriculture as a part of the project would be reclaimed in accordance with the requirements of the Surface Mining and Reclamation Act (SMARA), the OCMP, Mining Ordinance, and Reclamation Ordinance. Reclamation in compliance with the standards set forth in these regulations would ensure appropriate agricultural management practices are applied during reclamation of the mining areas. Thus, the proposed project would be consistent with this objective.</p>
<p>Action 5.4-1 Maintain the existing A-N (Agricultural Intensive) or A-X (Agricultural Extensive) base zoning within the off-channel planning area, except where it serves as a holding area for growth within the community spheres of Capay, Madison, Esparto, and Yolo, so</p>	<p>The proposed project would retain the project site's current Agricultural Intensive (A-N) zoning designation, with the addition of the Sand and Gravel Overlay Zone (SG-O) to allow for mining. Therefore, the proposed project would be consistent with this action.</p>

<p>as to preserve the agricultural character of the region.</p>	
<p>Action 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.</p>	<p>Pursuant to Reclamation Ordinance Section 10-5.520.2, upon completion of reclamation within each phase of the project, for land that will not be dedicated or deeded to the County, the operator is required to enroll each parcel reclaimed to agriculture in Williamson Act contract, or other equivalent long-term easements or deed restriction satisfactory to the County, for the purpose of protecting the agricultural use of the reclaimed land in perpetuity. This is reflected in condition of approval 10 for the existing operation and would apply to the proposed project is approved. Therefore, the proposed project would be consistent with this action.</p>
<p>Action 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.</p>	<p>Compliance with the CCAP and required review of the proposed reclamation plan Financial Assurance Cost Estimate (FACE) by the County staff and State Division of Mine Reclamation pursuant to SMARA would ensure compliance with these requirements. Therefore, the proposed project would be consistent with this action.</p>
<p>Action 5.4-6 Encourage off-channel excavation operations to access additional aggregate reserves through the use of wet pits, in order to minimize the amount of agricultural land disturbed by mining.</p>	<p>The project site is an active mining site within the CCAP area. The project proposes to continue to mine to a maximum depth of approximately 70 feet below existing ground surface in order to access the greatest feasible tonnage of material. No substantive expansion of the mining area is proposed. The requested permit approval will allow more time for removal of the identified resources. Therefore, the project would be consistent with this action.</p>
<p>Action 5.4-7 Ensure maximum public benefit from reclaimed uses by establishing the following priority to be used to assess the adequacy of proposed reclamation plans:</p> <ol style="list-style-type: none"> 1. Reclamation to viable agricultural uses; 2. Reclamation to native habitat; 3. Reclamation to recreation/ open space uses; 4. Reclamation to other uses. 	<p>The project proposes to reclaim approximately 419 acres to agriculture, approximately 204 acres to open water lake, and approximately 174 acres to habitat, with the remainder in access roads. Therefore, the project would be consistent with this action.</p>
<p>Land Development and Zoning (Yolo County Code of Ordinances, Title 8)</p>	
<p>Section 8-2.404 (a) Purpose The purpose of this section is to implement the agricultural land conservation policies contained in the Yolo County General Plan with a program designed to permanently protect agricultural land located within the unincorporated area.</p> <p>(c) Mitigation Requirements (1) Agricultural mitigation shall be required for conversion or change from agricultural use to a predominantly non-agricultural use prior to, or</p>	<p>See Impact 4.1-1 and Mitigation Measures 4.1-1a and 4.4-1b. Implementation of these Mitigation Measures would ensure that the proposed project would be consistent with this regulation.</p>

concurrent with, approval of a zone change from agricultural to urban zoning, permit, or other discretionary or ministerial approval by the County.

Agricultural mitigation shall be required for conversion or change from agricultural use to a predominantly non-agricultural use prior to, or concurrent with, approval of a zone change from agricultural to urban zoning, permit, or other discretionary or ministerial approval by the County

(2) The following uses and activities shall be exempt from, and are not covered by, the Agricultural Conservation and Mitigation Program:

(i) Affordable housing projects, where a majority of the units are affordable to very low or low income households, as defined in Title 8, Chapter 8 of the Yolo County Code (Inclusionary Housing Requirements);

(ii) Public uses such as parks, schools, cultural institutions, and other public agency facilities and infrastructure that do not generate revenue. The applicability of this exemption to public facilities and infrastructure that generate revenue shall be evaluated by the approving authority on a case-by-case basis. The approving authority may partly or entirely deny the exemption if the approving authority determines the additional cost of complying with this program does not jeopardize project feasibility and no other circumstances warrant application of the exemption;

(iii) Gravel mining projects regulated under Title 10, Chapters 3-5 of the Yolo County Code, pending completion of a comprehensive update of the gravel mining program (anticipated in January 2017); and

(iv) Projects covered by an approved specific plan which includes an agricultural mitigation program.

(d) Agricultural Mitigation Implementation. Agricultural mitigation required by this section shall be implemented as follows:

(1) Location, Generally. Mitigation lands shall be located within two (2) miles of sphere of influence of a city or within two (2) miles of the General Plan urban growth boundary of the town of Esparto ("Esparto Urban Growth Boundary"). Mitigation may also occur in any other area designated by the Board of

Supervisors based on substantial evidence demonstrating that the parcel at issue consists predominantly of prime farmland and/or is subject to conversion to non-agricultural use in the foreseeable future. Any such designation shall be made by resolution and shall specify whether the designated area is a priority conservation area subject to a 1:1 mitigation ratio. For all other designated areas, the resolution shall specify the mitigation ratio for any mitigation occurring in the covered area, which may exceed the applicable base ratio.

(2) Adjustment Factors. The following adjustment factors shall be applied, where relevant, to modify the base ratio:

(i) Priority Conservation Areas. Mitigation occurring within a priority conservation area shall occur at a reduced 1:1 ratio unless otherwise specified below. The following areas shall be deemed priority conservation areas for purposes of this section:

(A) Parcels partly or entirely within one-quarter (0.25) mile of the sphere of influence of a city or the Esparto Urban Growth Boundary, or, for projects that convert primarily non-prime farmland, one (1) mile of the sphere of influence of a city or the Esparto Urban Growth Boundary. For the purposes of this subsection, the word "primarily" shall mean greater than fifty (50) percent.

(B) Parcels lying partly or entirely within the area bounded by County Roads 98 and 102 on the west and east, respectively, and by County Roads 29 and 27 on the north and south, respectively. For mitigation of impacts to prime farmland, the ratio shall be 2:1 within this area.

(3) Other Factors

(i) If the area to be converted is twenty (20) acres or more in size, subject to the exception in (iii), below, by granting, in perpetuity, a farmland conservation easement to a qualifying entity with the County as a third party beneficiary, together with the provision of funds sufficient to compensate for all administrative costs incurred by the qualifying entity and the County as well as funds needed to establish an endowment to provide for monitoring, enforcement, and all other services necessary to ensure that the conservation purposes of the easement or other restriction are maintained in perpetuity.

(ii) If the area to be converted is a small project less than twenty (20) acres in size, by granting

a farmland conservation easement as described in subsection (i), above, or payment of the in-lieu fee established by the County to purchase a farmland conservation easement consistent with the provisions of this section; and the payment of fees in an amount established by the County to compensate for all administrative costs incurred by the County inclusive of endowment funds for the purposes set forth in subsection (i), above. The in-lieu fee, paid to the County, shall be used for agricultural mitigation purposes only (i.e., purchases of conservation easements and related transaction and administrative costs).

(iii) If Yolo County or a qualifying entity establishes a local farmland mitigation bank and sufficient credits are available at a total cost not exceeding the in lieu fee (and all related transactional and similar costs), small projects shall satisfy their farmland mitigation requirement by purchasing credits from the mitigation bank in a quantity sufficient to discharge the mitigation obligations of the project under this section. Other local projects converting twenty (20) or more acres of farmland may also purchase credits to discharge their farmland mitigation requirements, in lieu of providing an easement under subsection (i), above.

A farmland mitigation bank must be approved by the Board of Supervisors for local (i.e., within Yolo County) mitigation needs based upon a determination that it satisfies all of the farmland mitigation requirements of this section.

Landowners and project applicants that conserve more farmland than necessary to satisfy their mitigation obligations may seek approval of a farmland mitigation bank through an application process to be developed by the Planning, Public Works, and Environmental Services Department.

(iv) Agricultural mitigation shall be completed as a condition of approval prior to the acceptance of a final parcel or subdivision map, or prior to the issuance of any building permit or other final approval for development projects that do not involve a map.

(e) Eligible lands.

Land shall meet all of the following criteria in sections (1) through (6), below, to qualify as agricultural mitigation:

- (1) Agricultural conservation easements resulting from this program shall be acquired from willing sellers only;
- (2) The property is of adequate size, configuration and location to be viable for continued agricultural use;
- (3) The equivalent class of soil, based on the revised Storie index or NRCS soil survey maps, for the agricultural mitigation land shall be comparable to, or better than, the land which is converted;
- (4) The land shall have an adequate water supply to maintain the purposes of the easement, i.e., to irrigate farmland if the converted farmland is irrigated or capable of irrigation. The water supply shall be sufficient to support ongoing agricultural uses;
- (5) The mitigation land shall be located within the County of Yolo in a location identified for mitigation in accordance with this section;
- (6) It is the intent of this program to work in a coordinated fashion with the habitat conservation objectives of the Yolo Habitat Conservancy joint powers agency and the developing Habitat Conservation Plan/Natural Communities Conservation Plan. The mitigation land may not overlap with existing habitat conservation easement areas; the intent is to not allow "stacking" of easements, except for habitat conservation easements protecting riparian corridors, raptor nesting habitat, wildlife-friendly hedgerows, or other restored or enhanced habitat areas so long as such areas do not exceed five percent (5%) of the total area of any particular agricultural conservation easement.

(f) Ineligible lands.

A property is ineligible to serve as agricultural mitigation land if any of the circumstances below apply:

- (1) The property is currently encumbered by a conservation, flood, or other type of easement or deed restriction that legally or practicably prevents converting the property to a nonagricultural use; or
- (2) The property is currently under public ownership and will remain so in the future, except to the extent it is included within a mitigation bank that may subsequently be established by the County or other public agency; or
- (3) The property is subject to physical conditions that legally or practicably prevent converting the property to a nonagricultural use.

(g) Minimum conservation requirements.

The following minimum requirements shall be incorporated into all conservation easements recorded to satisfy the requirements of this mitigation program. Nothing in this subsection is intended to prevent the inclusion of requirements that require a higher level of performance from the parties to a conservation easement or other instrument to ensure that the goals of this mitigation program are achieved.

(1) It is the intent of the County to transfer most, if not all, of the easements that are received from this program to a qualifying entity, as defined above, for the purpose of monitoring compliance with easement terms and taking any necessary enforcement and related actions. Estimated costs of any such transfer may be recovered from the applicant at the time of easement acceptance by the County.

(2) All farmland conservation easements shall be acceptable to County Counsel and the qualifying entity that will receive the easement, and signed by all owners with an interest in the mitigation land.

(3) The instrument shall prohibit any uses or activities which substantially impair or diminish the agricultural productivity of the mitigation land, except for the restoration or conversion to habitat uses of up to five percent (5%) of the total easement land, or that are otherwise inconsistent with the conservation purposes of this mitigation program. The instrument shall protect the existing water rights and retain them with the agricultural mitigation land; however, the instrument shall not preclude the limited transfer of water rights on a temporary basis (i.e., not to exceed two (2) years in any ten (10) year period) to other agricultural uses within the County, so long as sufficient water remains available to continue reasonable and customary agricultural use of the mitigation land.

(4) The instrument shall prohibit the presence, construction, or reconstruction of homes or other non-agricultural uses except within a development envelope designated in an exhibit accompanying the easement. Any such development envelope(s) shall not count toward the acreage totals of the conservation easement for mitigation purposes. The easement shall specify that ancillary uses must be clearly subordinate to the primary agricultural use.

(5) Conservation easements held by a qualifying entity shall name the County as a third party beneficiary with full enforcement rights.

<p>(6) Interests in agricultural mitigation land shall be held in trust by a qualifying entity and/or the County in perpetuity. The qualifying entity or the County shall not sell, lease, or convey any interest in agricultural mitigation land which it shall acquire except in accordance with the terms of the conservation easement.</p> <p>(7) The conservation easement can only be terminated by judicial proceedings. Termination shall not be effective until the proceeds from the sale of the public's interest in the agricultural mitigation land is received and used or otherwise dedicated to acquire interests in other agricultural mitigation land in Yolo County, as approved by the County and provided in this chapter.</p> <p>(8) If any qualifying entity owning an interest in agricultural mitigation land ceases to exist, the duty to hold, administer, monitor and enforce the interest shall pass to the County or other qualifying entity as acceptable and approved by the County.</p>	
Off-Channel Surface Mining Ordinance	
<i>None applicable.</i>	
Reclamation Ordinance	
<p>Section 10-5.103 The purposes of this chapter are as follows: (a) The reclamation of mined lands is necessary to prevent or minimize the adverse effects of mining on the environment and to protect the public health and safety; (b) The reclamation of mined lands shall provide for the protection and subsequent beneficial use of mined lands. However, mining takes place in diverse areas, with significantly different geologic, topographic, climatic, biological, and social conditions, so that the methods and operations of reclamation plans may vary accordingly to provide for the most beneficial reclamation of mined lands; (c) In order to provide for reclamation plans that are specifically adapted to the requirements of particular mined lands; and to ensure that mined land is reclaimed to end uses such as agriculture, habitat, groundwater recharge, flood control, and channel stabilization in a consistent manner to maximize their overall management; this chapter imposes performance standards by which reclamation methods and operations shall be measured; (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</p>	<p>The proposed Reclamation Plan for the project would result in reclamation of the 418 acres of agriculture, 204 acres of lake, 174 acres of habitat, and 19 acres of slopes, roads, and buffers for a total of 816 acres of reclaimed area.</p> <p>Since the project would support continued agricultural use of the project site, while also supporting habitat, and future recreation opportunities, the Reclamation Plan would comply with this Section of the Reclamation Ordinance.</p>

<p>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:</p> <ol style="list-style-type: none"> (1) Agriculture and range land; (2) Groundwater storage and recharge areas; (3) Native fish, wildlife, invertebrate, and plant habitat; (4) Watercourses and flood control basins; and, (5) Recreational or open space lands. <p>(e) Non-prime agricultural land shall be similarly reclaimed to one of the alternate uses described above; and</p> <p>(f) Reclamation plans shall be designed to integrate with the long-term goals of encouraging agriculture and recreation while protecting, habitat, recreation, and protecting 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.</p>	
<p>Section 10-5.221 "Prime agricultural land" shall mean all land which meets the definition of prime agricultural land set forth in Section 51201 of the Government Code of the State as administered by the County in the administration of its agricultural preserve program.</p>	<p>The definition of Prime Farmland used in this chapter meets the definition of "Prime agricultural land" used in Section 10-5.221. Thus, the project complies with this section.</p>
<p>Section 10-5.512 The operator shall retain a Licensed Land Surveyor or Registered Civil Engineer to resurvey any areas reclaimed to agricultural usage after the first two (2) crop seasons have been completed. Any areas where settling has occurred shall be releveled to the field grade specified in the approved reclamation plan.</p>	<p>Existing Condition of Approval No. 32 requires compliance with this section, and would apply to the proposed project if approved. Section 2.9.7 of the Reclamation Plan establishes that "Reclamation will be deemed complete when productive capability of the affected land is equivalent to or exceeds, for two consecutive crop years, that of the unmined agricultural lands adjacent to and south of the mining areas." Thus, the project would comply with this Section.</p>
<p>Section 10-5.516 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</p>	<p>Existing Condition of Approval No. 47 requires compliance with this section, and would apply to the proposed project if approved. Agricultural reclamation would require the use of overburden and processing fines to raise the pit floor elevation above the average high groundwater level followed by the placement of a minimum of four feet of salvaged reclamation soils (stockpiled topsoil and upper layers of overburden) on the created land. Consistent with this Section, the Reclamation Plan proposes reclaimed agricultural field elevations of a minimum of five feet above the average high</p>

<p>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.</p>	<p>groundwater elevations. Therefore, the proposed project would comply with requirement.</p>
<p>Section 10-5.520.2 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 parcel reclaimed to agriculture in Williamson Act contract, or other equivalent long-term easement or deed restriction satisfactory to the County, for the purpose of protecting the agricultural use of the reclaimed land in perpetuity.</p>	<p>Pursuant to Reclamation Ordinance Section 10-5.520.2, upon completion of reclamation within each phase of the project, for land that will not be dedicated or deeded to the County, the operator is required to enroll each parcel reclaimed to agriculture in Williamson Act contract, or other equivalent long-term easements or deed restriction satisfactory to the County, for the purpose of protecting the agricultural use of the reclaimed land in perpetuity. This is reflected in Condition of Approval No. 10 for the existing operation and would apply to the proposed project as approved. Therefore, the proposed project would be consistent with this action.</p>
<p>Section 10-5.522 Phasing Plans. All proposed mining and reclamation plans shall present a phasing plan for mining and reclamation activities. The phasing plan shall be structured to minimize the area of disturbed agricultural lands during each mining phase, and encourage the early completion of the reclamation of agricultural land.</p>	<p>See Impact 4.1-1 and Mitigation Measures 4.1-1a and b. Implementation of these Mitigation Measures would ensure that the proposed project would be consistent with this regulation.</p>
<p>Section 10-5.525 All mining permit applications 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 farmland in these categories that would be converted to non-agricultural use, the reclamation plan shall present provisions to offset the conversion of these lands, at a ratio consistent with Section 8-2.404 (Agricultural Conservation and Mitigation Program) of the County Code. This mitigation requirement may be 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</p>	<p>See Impact 4.1-1 and Mitigation Measures 4.1-1a and b. Implementation of these Mitigation Measures would ensure that the proposed project would be consistent with this regulation.</p>

<p>agriculture land of equivalent or better quality/capability is achieved.</p> <p>(a) Implementation 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 OCMF 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.</p> <p>(b) Placement of permanent conservation easements on land of equal or better quality/capability. The operator shall be encouraged to target property "at risk" of conversion to non-agricultural uses in selecting areas for permanent protection. 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</p> <p>(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.</p> <p>(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.</p>	
<p>Section 10-5.531 Where areas are to be reclaimed to agricultural usage, all A and B horizon soil shall be ripped to a depth of three (3) feet after every two (2) foot layer of soil is laid down, in order to minimize compaction.</p>	<p>Section 2.8 of the Reclamation Plan requires:</p> <p>"For areas to be reclaimed to agriculture, rip all A-horizon and B-horizon soils to a depth of three (3) feet after every (2) foot layer of soil placement, per SMRO §10- 5.531."</p> <p>A condition of approval is proposed to ensure compliance with this requirement.</p>
<p>Section 10-5.532 Sediment fines associated with processed in-channel aggregate deposits (excavated as a result of maintenance activities performed in compliance with the CCIP) may be used in the backfill or reclamation of off-channel permanent lakes, for in-channel reshaping or habitat restoration, and/or as a soil amendment in agricultural fields provided the operator can demonstrate that no detrimental</p>	<p>This requirement is reflected in condition of approval 46 which would apply to the proposed project. Section 2.8 of the Reclamation Plan presents the method of resoiling that would be used during reclamation. The method of resoiling the site has been designed to achieve compliance with this section.</p>

sediment toxicity exists (consistent with the state's Stream Pollution Trends Monitoring Program protocols) and fine-grained soil (<63 micron) do not exceed 0.4 mg/kg total mercury.

The operator shall use overburden and processing fines whenever possible to support reclamation activities for pit lakes. If topsoil (A-horizon soil), formerly in agricultural production, is proposed for use within a pit lake or its drainage area, the operator must sample the soils prior to placement and analyze them for pesticides and herbicides (EPA Methods 8141B and 8151A, or equivalent) as well as for total mercury (EPA Method 7471B, or equivalent). The operator shall collect and analyze samples in accordance with EPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods, SW-846 (as updated). Topsoil that contains pesticides or herbicides above the Maximum Contaminant Levels for primary drinking water (California Code of Regulations), or that contains fine-grained soils exceeding on average 0.4 mg/kg total mercury shall not be placed in areas that drain to the pit lakes.

Land reclaimed to a subsequent use that includes planting of vegetation (e.g., agriculture, habitat) shall be provided an adequate soil profile (i.e., depth and texture of soil) to ensure successful reclamation. At the discretion of the Director and at the operator's sole expense, the proposed reclamation plan for the project may be peer reviewed by an appropriate expert/professional, and recommendations, if any, shall be incorporated into the project as conditions of approval.

Note:

¹ Due to the length of Section 8-2.404 of the Yolo County Code, only the pertinent parts are reproduced within this table.

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4.2 AIR QUALITY, GREENHOUSE GASES, AND ENERGY

4.2.1 INTRODUCTION

This Air Quality, Greenhouse Gas Emissions and Energy section of the Draft SEIR evaluates the potential impacts of the proposed project on local and regional air quality, greenhouse gases, and energy. The section includes a discussion of the existing air quality and greenhouse gas (GHG) setting, air quality and energy impacts resulting from changes in the proposed project associated with mining and material processing, grading and equipment emissions, direct and indirect emissions associated with the project, the impacts of these emissions on both the local and regional scale, demand on energy resources, and mitigation measures warranted to reduce or eliminate any identified significant impacts.

Information for this section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR,⁴ and the following project-specific reports and documentation:

- Public Health Risk Assessment of Diesel Particulate Matter and Respirable Silica, CEMEX Construction Materials Pacific, Compass Land Group, August 2022 (Appendix J)
- Air and Greenhouse Gas Emissions Study, CEMEX Construction Materials Pacific, Compass Land Group, Revised July 2022 (Appendix I)
- Yolo-Solano Air Quality Management District (YSAQMD), Handbook for Assessing and Mitigating Air Quality Impacts⁵

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of the proposed project. No comments concerning air quality, GHG emissions or energy were received by the County (NOP comment letters are included in Appendix B of this Draft SEIR).

The following subsections describe the existing environmental setting of the County and specifically in the lower Cache Creek area, the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County. 1996. Solano Long-Term Off-Channel Mining Permit Application Final Environmental Impact Report. November.

⁵ Yolo-Solano Air Quality Management District. Handbook for Assessing and Mitigating Air Quality Impacts. July 11, 2007. Available at: <http://www.ysaqmd.org/documents/CEQAHandbook2007.pdf>.

4.2.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes updated information that has become available since those reports were completed.

General Information and Key Terms

The following terms are used throughout this section and have important bearing upon properly evaluating air quality, GHG emissions, and energy within the context of CEQA. As a result, this section begins by providing definitions of key terms, as follows:

The U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively, for common pollutants referred to as “criteria air pollutants.” The most prevalent criteria air pollutants include ozone, nitrogen dioxide, carbon monoxide (CO), sulfur dioxide, respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}). More information regarding criteria air pollutants is presented in Table 4.2-1.

Ozone is not emitted directly and instead is considered a secondary pollutant, which forms as a result of a complex chemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x) emissions in the presence of sunlight. In addition to the criteria air pollutants, toxic air contaminants (TACs) are also a category of environmental concern. TACs are comprised of a wide range of pollutants that pose a risk to public health when inhaled.

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth’s atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. Each GHG has a different global warming potential. For instance, CH₄ traps about 34 times more heat per molecule than CO₂. As a result, emissions of GHGs are reported in metric tons of carbon dioxide equivalents (CO₂e), wherein each GHG is weighted by its global warming potential relative to CO₂. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

In the context of this Draft SEIR, the term “energy” is used broadly to refer to any electricity or fossil fuels used during project implementation or under the existing setting. The principal fossil fuel consumed during mining activity is diesel fuel for operation of heavy-duty equipment. Electricity, which is often measured in watts per hour, may either be generated by renewable sources, such as wind turbines, photovoltaic cells, and geothermal sources, or through combustion of fossil fuels, principally natural gas.

Table 4.2-1: State and Federal Criteria Air Pollutant Effects

Pollutant	Principal Health Effects
Ozone	Inhalation causes inflammation and irritation of the tissues lining human airways. Exposure can reduce the volume of air that the lungs breathe in and cause shortness of breath. In sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from ozone exposure vary widely among individuals.
Respirable Particulate Matter (PM10)	Short-term exposures have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease. The effects of long-term exposure are less clear, although several studies suggest a link between long-term PM10 exposure and respiratory mortality.
Fine Particulate Matter (PM2.5)	Short-term exposures have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. Long-term exposure has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.
Carbon Monoxide (CO)	The most common effects of exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of exposure during pregnancy are at risk of adverse developmental effects.
Nitrogen Dioxide	Exposure can intensify responses to allergens in allergic asthmatics. In addition, epidemiological studies have demonstrated associations between exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, and emergency room visits for asthma
Sulfur Dioxide	Children and adults with asthma are more likely to experience adverse responses with exposure, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Exposure at elevated levels (above 1 ppm) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.
Lead	In children, adverse health effects of lead exposure are often irreversible and include brain damage and mental retardation. Lead poisoning can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain. There is also evidence that lead exposure can result in cancer in adults.
Visibility-Reducing Particles	Haze not only impacts visibility, but some haze-causing pollutants have been linked to serious health problems and environmental damage as well (see PM10 and PM2.5 health effects).
Sulfate	Sulfate particles are part of PM2.5, and so they have health effects similar to those from exposure to PM2.5.
Hydrogen Sulfide	The odor is extremely strong and foul, and it can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting.
Vinyl Chloride	Short-term exposure to high levels (10 ppm or above) in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Inhalation exposure to vinyl chloride has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.

Source: CARB, 2022. California Ambient Air Quality Standards, available at: <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>. Accessed August 4.

Description of Regional Environment

The project site is located in the YSAQMD, which includes all of Yolo County and the northeast portion of Solano County. The YSAQMD is located in the southeast portion of the Sacramento Valley Air Basin (SVAB). Air quality in the SVAB is influenced by the regional climate, meteorology, topography, and the presence of existing air pollution sources and ambient conditions. The following discussion provides an overview of the physical and regulatory setting for air pollutants of concern in the SVAB. The information presented in this section is primarily from the YSAQMD's Handbook for Assessing and Mitigating Air Quality Impacts.⁶

Climate Topography, and Meteorology

The SVAB encompasses all portions of eleven counties including all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo Counties, the westernmost portion of Placer County, and the northeastern half of Solano County. The SVAB is bounded by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east. The project site is located in central Yolo County.

The SVAB has a Mediterranean climate characterized by hot dry summers and mild rainy winters. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches, and the rainy season generally occurs from November through March. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants under certain meteorological conditions. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells develop over the Sacramento Valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating due to lower temperatures during autumn and winter reduce the influx of outside air and allow air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap pollutants near the ground.

The ozone season (i.e., May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to blow north carrying the pollutants out, the Schultz Eddy causes the wind pattern to circle back to the south. Essentially, this phenomenon causes the air pollutants to be blown south toward the YSAQMD. This phenomenon has the effect of exacerbating the pollution levels in the area and increases the likelihood of exceedance of federal or state air quality standards. The eddy normally dissipates around noon when the Delta sea breeze arrives.

⁶ YSAQMD, 2007. Handbook for Assessing and Mitigating Air Quality Impacts. 11 July.

Regional Ambient Air Quality

The CAAQS, which are based on meteorological conditions unique to California, are either equal to or more stringent than the NAAQS. Areas in California are classified as either in “attainment” or “non-attainment” for each criteria air pollutant, based on whether or not the NAAQS or CAAQS have been achieved. To assess the regional attainment status, the YSAQMD collects air quality data from two State and Local Air Monitoring Stations (SLAMS). Based on the monitoring data, the YSAQMD is currently designated a “non-attainment” area for the 1-hour state ozone standard, the 8-hour state and federal ozone standards, and the 24-hour and annual state PM10 standards. Yolo County is also designated a “partial non-attainment” area for the 24-hour federal PM2.5 standard. The YSAQMD is designated as an attainment or unclassified area for all other pollutants (Table 4.2-2).

Table 4.2-2: Ambient Air Quality Standards and Attainment Status

Pollutant	Averaging Time	CAAQS		NAAQS	
		Concentration	Status	Concentration	Status
Ozone	1-Hour	0.09 ppm	N	---	---
	8-Hour	0.070 ppm	N	0.070 ppm	N
CO	1-Hour	20 ppm	A	35 ppm	A
	8-Hour	9.0 ppm	A	9 ppm	A
NO2	1-Hour	0.18 ppm	A	0.1 ppm	A
	Annual	0.030 ppm	A	0.053 ppm	A
SO2	1-Hour	0.25 ppm	A	0.075 ppm	A
	24-Hour	0.04 ppm	A	0.14 ppm	A
	Annual	---	---	0.030 ppm	A
PM10	24-Hour	50 µg/m ³	N	150 µg/m ³	U
	Annual	20 µg/m ³	N	---	---
PM2.5	24-Hour	---	---	35 µg/m ³	N
	Annual	12 µg/m ³	U	12.0 µg/m ³	A
Sulfates	24-Hour	25 µg/m ³	A	---	---
Lead	30-Day	1.5 µg/m ³	A	---	---
	Calendar Quarter	---	---	1.5 µg/m ³	A
	3-Month Rolling	---	---	0.15 µg/m ³	A
Hydrogen Sulfide	1-Hour	0.03 ppm	U	---	---
Vinyl Chloride	24-Hour	0.01 ppm	U	---	---
Visibility Reducing Particles	8-Hour	---	U	---	---

Sources YSAQMD, 2022. Ambient Air Quality Standards, available at: http://www.ysaqmd.org/wp-content/uploads/Graphics/Attainment_Status.png. Accessed August 3.

Notes:

A = attainment; N = non-attainment; U = unclassified; ppm = parts per million; µg/m³ = micrograms per cubic meter; “---” = not applicable

Effects of GHG Emissions

Some of the potential effects of increased GHG emissions and associated climate change may include loss of snowpack (affecting water supply), more frequent extreme weather events, more large forest fires, more drought years, and sea level rise. In addition, climate change may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health.⁷

⁷ Bay Area Air Quality Management District (BAAQMD), 2017. Final 2017 Clean Air Plan. April 19.

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) published a special report on potential long-term climate change impacts based on the projected increases in temperature due to global climate change. The IPCC report found that we are already seeing the consequences of global warming due to a 1 degree Celsius (°C) increase in pre-industrial levels, such as extreme weather, rising sea levels, and diminishing Arctic sea ice. Global warming is likely to reach 1.5°C above pre-industrial levels between 2030 and 2050 if it continues to increase at the current rate. Some of the impacts due to ongoing global warming could be avoided by limiting future global warming to 1.5°C compared to 2°C. For example, by limiting global warming to 1.5°C or lower, the likelihood of an Arctic Ocean free of sea ice in summer would be ten times lower compared to the likelihood under the scenario of 2°C increase. Beyond the 1.5°C threshold, there would be significant increases in the risk associated with long-lasting or irreversible changes, such as the loss of ecosystems. The IPCC states that to limit the global warming to 1.5°C, rapid transitions are needed in land, energy, industry, building, transport, and urban sectors to reach the goal of carbon neutrality by 2050, which means that the Earth's anthropogenic GHG emissions each year would be removed completely through carbon offsetting, sequestration, or other means.⁸

Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) is the primary provider of natural gas and electricity in Yolo County. PG&E produces or buys energy from conventional and renewable sources. In 2021, approximately 93 percent of the electricity came from GHG free resources, including renewables, nuclear, and large hydroelectric power. Approximately 50 percent of the electricity came from renewable resources that qualify under the California Renewable Portfolio Standard.⁹

Transportation Fuels

Transportation accounts for a major portion of California's overall energy consumption. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. Diesel fuel is the second largest transportation fuel used in California, representing about 17 percent of total fuel sales behind gasoline. Nearly all heavy duty-trucks, delivery vehicles, buses, trains, ships, boats, barges, farm, construction, and heavy-duty military vehicles and equipment have diesel engines.¹⁰

Description of Local Environment

The predominant land uses in the vicinity of the project site include aggregate mining and processing, agriculture, and open space associated with Cache Creek. To the north, the site is bound by Cache Creek and agricultural lands further north. To the east, the site is bound by agriculture, including various uses allowed within that zone such as farm dwellings and ancillary commercial-type uses. To the south, the site is bound by SR-16, agriculture, and occasional farm dwellings. To the west, the site is bound by generally by I-505. The exception is Phase 7 which is

⁸ Intergovernmental Panel on Climate Change (IPCC), 2018. IPCC Press Release, Summary for Policymakers of IPCC Special Report on Global Warning of 1.5°C approved by governments. October 8.

⁹ Pacific Gas and Electric, 2022. Exploring Clean Energy Solutions. Available at: https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page, accessed May 30, 2022.

¹⁰ California Energy Commission, 2022. Transportation Energy. Available at: <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy>, accessed June 7, 2022.

located west of I-505 and is bound to the west by agriculture and rural residences. The nearest rural residence is greater than 1,000 feet from the proposed surface mining disturbance boundary.

Criteria Air Pollutant Trends

The two SLAMS in the YSAQMD collectively monitor ozone, PM10, and PM2.5, which are the primary pollutants of concern that have resulted in a “non-attainment” air quality status. The nearest monitoring station to the project site is the Woodland-Gibson Road station located approximate 9 miles to the east. Since 2018, the highest annual concentrations of ozone, PM10, and PM2.5 reported from the Woodland air monitoring station are summarized in Table 4.2-3. The numbers of days that ozone, PM10, and PM2.5 exceed the CAAQS or NAAQS over this time period are also summarized in Table 4.2-3. Ozone and PM10 levels measured in the City of Woodland exceeded the CAAQS in 2018 and 2020. Ozone and PM2.5 levels exceeded the NAAQS in 2018, and ozone exceeded the NAAQS in 2020.

Table 4.2-3: Local Air Pollutant Summary at the Woodland-Gibson Road Monitoring Station

Pollutant	Standard	Highest Air Pollutant Concentrations			Days Exceeding Standard		
		2018	2019	2020	2018	2019	2020
Ozone	State 1-Hour	0.095	0.078	0.096	1	0	1
	State 8-Hour	0.085	0.067	0.076	2	0	2
	National 8-Hour	0.084	0.067	0.075	2	0	2
PM10	State 24-Hour	223.9	83.0	224.2	24.5	NR	NR
	State Annual	26.1	NR	NR	---	---	---
PM2.5	National 24-Hour	165.4	27.8	134.0	12.3	NR	NR

Source: CARB, 2022. iADAM Air Quality Data Statistics, available at: <http://www.arb.ca.gov/adam/trends/trends1.php>. Accessed August 3.

Notes:

“---” = insufficient data; NR = not reported due to insufficient data

Ozone concentrations reported in ppm and PM10 and PM2.5 concentrations reported in µg/m³.

Toxic Air Contaminants

Localized air pollutants, such as TACs, generally dissipate with distance from the emission source and can pose a health risk to nearby populations. Unlike emissions of criteria air pollutants, which generally affect regional air quality, TAC emissions are evaluated based on estimations of localized concentrations and risk assessments. The adverse health effects a person may experience following exposure to any chemical depend on several factors, including the amount (dose), duration, chemical form, and any simultaneous exposure to other chemicals.

For risk assessment purposes, TACs are separated into carcinogens and non-carcinogens. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per 1 million exposed individuals over a lifetime of exposure. Non-carcinogenic substances are generally assumed to have a safe threshold below which health impacts would not occur. Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the sum of expected exposure levels divided by the corresponding acceptable exposure levels.

The primary TACs of concern for projects that use diesel-powered off-road equipment and vehicles is diesel particulate matter (DPM) and PM_{2.5}. Emissions of DPM and PM_{2.5} generated from the exhaust of diesel-powered engines are a complex mixture of soot, ash particulates, metallic abrasion particles, volatile organic compounds, and other components that can penetrate deeply into the lungs and contribute to a range of health problems. In 1998, CARB identified DPM from diesel-powered engines as a TAC based on its potential to cause cancer and other adverse health effects.¹¹ While diesel exhaust is a complex mixture that includes hundreds of individual constituents, DPM is used as a surrogate measure of exposure, under California regulatory guidelines, for the mixture of chemicals that make up diesel exhaust as a whole. More than 90 percent of DPM is less than 1 micron in diameter and is thus a subset of PM₁₀ and PM_{2.5}.¹²

In addition to concerns regarding DPM, silicon dioxide, commonly referred to as silica or respirable silica, is considered a TAC. Silica is a common mineral that is contained naturally in many types of sand and stone, and, thus, can be found in man-made products such as concrete, mortar, glass, pottery, and bricks. From a health risk perspective, the portion of silica dust that is respirable is of principle concern. Activities such as sawing, grinding, and crushing stones, sand, or other silica containing materials can release respirable silica. Inhalation of respirable silica has been linked with chronic lung disease, specifically silicosis, as well as lung cancer, chronic obstructive pulmonary disease, and kidney disease. Due to the Health risks posed by silica dust, the United States Occupational Safety and Health Administration has established standards for exposure of workers. The proposed mining activities would have the potential to release silica, dust, and, as such, health risks related to the release of silica dust are analyzed within this EIR.

4.2.3 REGULATORY CONTEXT

Since the 1996 EIR was certified, many of the applicable laws and regulations have continued to evolve. The following is a description of the current federal, State, and local environmental laws and policies that are relevant to the review of cultural and tribal cultural resources under the CEQA process.

Federal Regulations

The following are federal regulations relevant to air quality, GHG, and energy.

Federal Clean Air Act (CAA)

The USEPA is responsible for implementing national air quality programs established under the 1977 federal Clean Air Act (CAA). The USEPA is involved with global, international, national, and interstate air pollution issues. Its primary role at the state level is one of oversight of state air quality programs. The USEPA sets federal vehicle and stationary source emission standards and provides research and guidance on air pollution programs.

Under the CAA, the USEPA has established two types of NAAQS: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-

¹¹ California Air Resources Board (CARB), 1998. Initial Statement of Reasons for Rulemaking; Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, June.

¹² California Air Resources Board (CARB), 2016. Overview: Diesel Exhaust and Health. Available at: <https://www.arb.ca.gov/research/diesel/diesel-health.htm>, accessed January 13, 2017. Last updated April 12, 2016

related adverse effects such as visibility reduction. The primary NAAQS are summarized in Table 4.2-2 and are intended to protect, with an adequate margin of safety, those persons most susceptible to respiratory distress, such as people suffering from asthma or other illness, the elderly, very young children, or people engaged in strenuous work or exercise.

The CAA requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). States containing areas that exceed the NAAQS are required to revise their SIPs in order to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emission inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has responsibility to review all state SIPs to determine if they conform to the mandates of the CAA and will achieve air quality goals when implemented. If the USEPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan for the non-attainment area and may impose additional control measures. Failure to obtain an approved SIP or to implement the plan within mandated timeframes can result in limitations being applied to transportation funding and sanctions being placed on stationary air pollution sources in the air basin.

Federal Climate Action Goals

In 2007, the United States Supreme Court ruled that CO₂ is an air pollutant as defined under the Clean Air Act, and that the USEPA has the authority to regulate emissions of GHGs. The USEPA made two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act.

- **Endangerment Finding:** The current and projected concentrations of the six key well-mixed GHGs, CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, these findings were a prerequisite for implementing GHG emissions standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA), the USEPA finalized emission standards for light-duty vehicles (2012-2016 model years) in May of 2010 and heavy-duty vehicles (2014-2018 model years) in August of 2011.

Federal Vehicle Emission Regulations

The USEPA has established national GHG emission and fuel economy regulations for vehicles that would achieve substantial GHG emissions reductions along with reductions in other criteria pollutants. Some of the key USEPA regulations related to GHG emissions from vehicles are summarized below:

- In 2010, USEPA in collaboration with the NHTSA finalized updated Corporate Average Fuel Economy (CAFE) and GHG emissions standards for passenger cars and light trucks light-duty vehicles for model years 2012 to 2016.

- In 2012, USEPA and NHTSA extended the CAFE and GHG emissions standards for light-duty vehicles for model years 2017 to 2025. Combined with the 2012 to 2016 standards, the regulation will result in vehicles emitting 50 percent less than 2010 levels in 2025.
- In 2016, USEPA and NHTSA finalized national GHG emission and fuel economy standards for medium- and heavy-duty vehicles that would cover model years 2018 to 2027 for certain trailers and model years 2021 to 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.
- In 2020, USEPA and NHTSA finalized updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026.
- In 2021, USEPA revised the GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026 to leverage advances in clean car technology.
- In 2022, NHSTA revised the CAFE standards for passenger cars and light trucks for model years 2024 to 2026, which are expected to result in average fuel economy label values of 49 miles per gallon.

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA) is the foundation for federal-level conservation and efficiency goals and requirements for energy and water, and the use of renewable energy sources. The NECPA was a result of the energy crisis during the mid-1970's and was signed into law in 1978. As passed, the NECPA promoted three major roles for the federal government in energy conservation: 1) setting energy-efficiency standards; 2) disseminating information about energy conservation opportunities; and 3) improving efficiencies of federal buildings.

Energy Policy Act of 2005

The Energy Policy Act addresses energy production in the United States in the following aspects, energy efficiency, renewable energy, oil and gas, coal, tribal energy, nuclear matters and security, vehicles and motor fuels, hydrogen, electricity, energy tax incentives, hydropower and geothermal, and climate change technology. The Energy Policy Act of 2005 granted the Federal Energy Regulatory Commission the responsibilities and the authority to oversee the nation's electricity transmission grid, ensure fair competition in the wholesale power markets, providing rate incentives to promote electric transmission investment, among other duties.

State Regulations

The following are State regulations and policies relevant to air quality, GHG, and energy.

California Clean Air Act (CCAA)

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing its own air quality legislation, called the California Clean Air Act (CCAA), adopted in 1988. CARB has the primary responsibility in

California for developing and implementing air pollution control plans designed to achieve and maintain the NAAQS established by the USEPA. Whereas CARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. CARB combines its data with all local district data and submits the completed SIP to the USEPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by CARB, and attainment plans adopted by the air districts and approved by CARB.

In-Use Off-Road Diesel Vehicle Regulation

In 2007, CARB adopted a regulation to reduce DPM and NO_x emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles to limit idling to less than five minutes. The idling requirements are specific in Title 13 of the California Code of Regulations.

California Climate Action Goals

California has established the following long-term climate action goals:

- Assembly Bill (AB) 32: Reduce GHG emissions to 1990 levels by 2020.
- Senate Bill (SB) 32: Reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Executive Order B-55-18: Carbon neutrality as soon as possible, but no later than 2045.
- Executive Order S-3-05: Reduce GHG emissions to 80 percent below 1990 levels by 2050.

It should be noted that executive orders are legally binding only on State agencies and have no direct effect on local government or the private sector.

California Vehicle Emission Regulations

California has established statewide GHG emission and fuel economy regulations for vehicles that align with or supersede the national standards. The key State regulations related to GHG emissions from vehicles are summarized below:

- The Pavley Regulations (AB 1493), as amended in 2009, required a 30 percent reduction in state GHG emissions from new passenger vehicles from 2009 through 2016.
- The Advanced Clean Cars Program extends the Pavley Regulations beyond 2016 and established a technology mandate for zero-emission vehicles.
- The Low-Carbon Fuel Standard (Executive Order S-1-07), as amended in 2019, requires a 20 percent reduction in the carbon intensity of California's transportation fuels by 2030.

- SB 375 establishes regional GHG reduction targets from passenger vehicles for the years 2020 and 2035 by requiring metropolitan planning organizations to develop and implement Sustainable Communities Strategies that align regional transportation planning efforts with regional housing allocation needs.

California Energy Efficiency Regulations

California has established statewide energy efficiency regulations, including programs that increase the statewide procurement of renewable energy. The key State regulations related to GHG emissions from energy use are summarized below:

- The Renewable Portfolio Standard Program, as updated in 2018 (SB 100), requires the State to procure 60 percent of its electricity from renewable sources by 2030 and 100 percent from carbon-free sources by 2045.
- Title 24 Building Efficiency Standards are updated every three years with the long-term vision to support zero-net energy for all new single-family and low-rise residential buildings by 2020 and new high-rise residential and nonresidential buildings by 2030.
- Title 24 California Green Building Standards, referred to as the CALGreen Code, aim to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.

California Cap-and-Trade Program

The Cap-and-Trade Program is a key element of California's strategy to reduce GHG emissions from covered entities that are responsible for about 85 percent of California's GHG emissions. The program establishes a declining limit on major sources of GHG emissions throughout California, and it creates a powerful economic incentive for significant investment in cleaner and more efficient technologies. CARB creates allowances equal to the total amount of permissible GHG emissions (i.e., the "cap"). Each year, fewer allowances are created and the annual cap declines. As a result, the annual auction reserve price for allowances increases which creates a steady and sustained carbon price signal to incentivize actions to reduce GHG emissions and enable a smooth transition to a cleaner economy.

California's Climate Change Scoping Plan

In December 2008, CARB adopted the Climate Change Scoping Plan to identify how the State can achieve its 2020 climate action goal under AB 32. In 2017, CARB updated the Scoping Plan to identify how the State can achieve its 2030 climate action goal under SB 32, and substantially advance toward its 2050 climate action goal under Executive Order S-3-05. The 2017 Scoping Plan includes the regulatory programs identified above, such as the Advanced Clean Cars Program, Low-Carbon Fuel Standard, Renewable Portfolio Standard Program, energy efficiency standards, and Cap-and-Trade Program.

California Environmental Quality Act and SB 97

In 2007, under SB 97, the State acknowledged that climate change is a prominent environmental issue requiring analysis under the California Environmental Quality Act (CEQA). SB 97 directed the Governor's Office of Planning and Research to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA. In 2009, the Natural Resources Agency adopted the State CEQA Guidelines amendments, which provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The amendments became effective in March 2010. The amendments added Sections 15126.4(c) and 15064.4 (discussed further below) to the CEQA Guidelines, which specifically pertain to the significance of GHG emissions, and provide guidance on measures to mitigate GHG emissions when such emissions are found to be significant.

Warren-Alquist Act

The Warren-Alquist Act of 1975 is the legislation that created the California Energy Commission. The Act enables the California Energy Commission to formulate and adopt the nation's first-ever energy conservation standards for buildings constructed and appliances sold in California. The CEC was also directed to create a research and development program with a focus on fostering non-conventional energy sources.

California Energy Action Plan

California's 2008 Energy Action Plan Update updates the 2005 Energy Action Plan II, which is the State's principal energy planning and policy document. The plan maintains the goals of the original Energy Action Plan, describes a coordinated implementation plan for State energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are to promote energy efficiency, demand response (i.e., reducing customer energy usage during peak periods to address power system reliability and support the best use of energy infrastructure), and use of renewable power sources. To the extent that these strategies are unable to satisfy increasing energy and capacity needs, the plan supports clean and efficient fossil-fuel fired generation.

Local Regulations

The following are regulatory agencies, regulations, and policies relevant to air quality, GHG, and energy.

Yolo-Solano Air Quality Management District (YSAQMD)

The YSAQMD was established in 1971 by a joint powers agreement between the Yolo and Solano County Boards of Supervisors. The YSAQMD is governed by a Board of Directors composed of representatives from both the county boards of supervisors and city council members from the cities within the YSAQMD. The YSAQMD has jurisdiction over all of Yolo County and the northeast portion of Solano County, from Vacaville on the west, to Rio Vista on the South. The YSQAMD recommends that impacts to climate change be evaluated for every CEQA project; however,

YSQAMD has not developed specific guidance to evaluate the potential significance of GHG emissions from new projects.¹³

The YSQAMD is tasked with achieving and maintaining healthful air quality for its residents. This is accomplished by establishing programs, plans, and regulations enforcing air pollution control rules in order to attain all state and federal ambient air quality standards and minimize public exposure to airborne toxins and nuisance odors. YSAQMD has adopted the following attainment plans to achieve state and federal air quality standards and comply with CAA and CCAA requirements:

- The 1992 Yolo-Solano Air Quality Attainment Plan (AQAP);
- The 1994 Sacramento Area Regional Ozone Attainment Plan;
- The 2013 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan;
- The 2017 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan;
- The 2010 PM10 Implementation/Maintenance Plan and Redesignation Request for Sacramento County; and
- The 2013 PM2.5 Implementation/Maintenance Plan and Redesignation Request for Sacramento PM2.5 Nonattainment Area.

In May 1992, the YSAQMD adopted the AQAP that identifies feasible emission control measures to reduce emissions of ozone and attain state ozone standards (the CCAA does not require attainment plans for PM). The AQAP control measures focus on emission sources under YSAQMD's authority; specifically, stationary emission sources and some area-wide sources. The AQAP is generally updated every three years based on an evaluation of existing emissions and projections of population, industry, and vehicle-related emissions growth. The AQAP was most recently updated in accordance with the 2019 Triennial Assessment and Plan Update.

The 1994 Sacramento Area Regional Ozone Attainment Plan was the original element of the California State Implementation Plan (SIP) for the YSAQMD, which set out stationary source control programs and statewide mobile source control programs for attainment of the national 1-hour ozone standard. In 2005, the national 1-hour ozone standard was revoked by the USEPA; however, a court decision found that areas that were subject to certain planning requirements based on their 1-hour ozone non-attainment designation were still obligated to meet those requirements even though the standard had been revoked. The 2013 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan continues the strategies found in the 1-hour ozone SIP. On November 16, 2017, CARB adopted the 2017 Sacramento Regional

¹³ YSAQMD, 2007. Handbook for Assessing and Mitigating Air Quality Impacts. 11 July.

2008 NAAQS 8-Hour Ozone Attainment and Further Reasonable Progress Plan and submitted it to USEPA as a revision to the California SIP on December 18, 2017.

The 2010 PM10 Implementation/Maintenance Plan is the current PM10 SIP for the YSAQMD. The purpose of this plan is to demonstrate maintenance of the PM10 NAAQS in the jurisdiction and to request formal redesignation to attainment. Similarly, the 2013 PM2.5 Implementation/Maintenance Plan serves the purpose for demonstrating that the region will remain below the PM2.5 standard for 10 years.

YSAQMD continuously monitors its progress in implementing attainment plans and must periodically report to CARB and USEPA. The YSAQMD, in partnership with the five air districts in the Sacramento Metropolitan Area, CARB, and the Sacramento Area Council of Governments, periodically revises its attainment plans to reflect new conditions and requirements in accordance with schedules mandated by the CAA and CCAA.

In addition, the following rules adopted by the YSAQMD are applicable to the proposed project:

Rule 2.5 Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property.

Rule 2.11 Particulate Matter Concentration. A person shall not release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions.

2030 Countywide General Plan

The 2030 Countywide General Plan contains the following goals and policies related to air quality, GHG emissions, and energy use that are relevant to the proposed project:

Goal CI-4: Environmental Impacts. Minimize environmental impacts caused by transportation.

Policy CI-4.4: Support and encourage low emission or non-polluting forms of transportation.

Goal CO-6: Air Quality. Improve air quality to reduce the health impacts caused by harmful emissions.

Policy CO-6.6: Encourage implementation of YSAQMD Best Management Practices, such as those listed below, to reduce emissions and control dust during construction activities:

- Water all active construction areas at least twice daily.
- Haul trucks shall maintain at least two feet of freeboard.

- Cover all trucks hauling soil, sand, and other loose materials.
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut-and-fill operations and hydroseed area.
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Sweep streets if visible soil material is carried out from the construction site.
- Treat accesses to a distance of 100 feet from the paved road with a 6 to 12 inch layer of wood chips or mulch.
- Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel.

Goal CO-8: Climate Change. Reduce greenhouse gas emissions and plan for adaptation to the future consequences of global climate change.

Policy CO-8.2: Use the development review process to achieve measurable reductions in greenhouse gas emissions.

Policy CO-8.4: Encourage all businesses to take the following actions, where feasible: replace high mileage fleet vehicles with hybrid and/or alternative fuel vehicles; increase the energy efficiency of facilities; transition toward the use of renewable energy instead of non-renewable energy sources; adopt purchasing practices that promote emissions reductions and reusable materials; and increase recycling.

Policy CO-8.5: Promote GHG emission reductions by supporting carbon efficient farming methods (e.g. methane capture systems, no-till farming, crop rotation, cover cropping); installation of renewable energy technologies; protection of grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to other uses; and development of energy-efficient structures.

Goal ED-5.4: Economic Sustainability. Support sustainable economic development. Encourage local industry to adapt to the expected effects of climate change and minimize greenhouse gases and other emissions.

Policy ED-5.4: Encourage businesses to exceed clean air standards, whenever possible.

Goal CC-4: Project Design. Require project design that incorporates “smart growth” planning principles and “green” building standards that reflect the County’s commitment to sustainable development.

Policy CC-4.10: Encourage construction and other heavy equipment vehicles (e.g. mining, agriculture, etc.) to use retrofit emission control devices.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which includes the following sections related to air quality, GHG emissions and energy.

Section 10-4.407. Conveyor Systems.

Wherever practical and economically feasible, portable or movable conveyor systems shall be used to transport raw materials and overburden.

Section 10-4.414. Dust Control.

Unless superseded by newer more effective standards, the following measures shall be implemented in order to control fugitive dust:

- (a) All stockpiled soils shall be enclosed, covered, or have sufficient moisture to control fugitive dust at all times. Inactive soil stockpiles should be vegetated or adequately watered to create an erosion-resistant outer crust.
- (b) During operating hours, all disturbed soil and unpaved roads shall be adequately watered to keep soil moist.
- (c) All disturbed but inactive portions of the site shall either be seeded or watered until vegetation is grown or shall be stabilized using methods such as chemical soil binders, jute netting, or other Yolo-Solano Air Quality Management District approved methods.

Section 10-4.414.1. Energy.

Wherever practical and feasible, aggregate facilities shall use clean electric energy from the grid or install alternative on-site electricity generation systems to replace diesel equipment and reduce criteria pollutant emissions.

Section 10-4.415. Equipment maintenance.

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

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

Section 10-4.429. Setbacks. [excerpt]

All off-channel surface mining operations shall comply with the following setbacks:

- (a) New processing plants and material stockpiles shall be located a minimum of one-thousand (1,000) feet from public rights-of-way, public recreation areas, and/or off-site residences, unless alternate measures to reduce potential noise, dust, and aesthetic impacts are developed and implemented...

Section 10-4.433. Soil stockpiles.

Topsoil, subsoil, and subgrade materials in stockpiles shall not exceed forty (40) feet in height, with slopes no steeper than 2:1 (horizontal:vertical). Stockpiles, other than aggregate stockpiles, shall be seeded with a native vegetative cover to prevent erosion and leaching. The use of topsoil for purposes other than reclamation shall not be allowed without the prior approval of the Director.

Slopes on stockpiled soils shall be graded to 2:1 (horizontal:vertical) for long-term storage to prevent use by bank swallows. At no time during the active breeding season (May 1 through July 31) shall slopes on stockpiles exceed a slope of 1:1, even on a temporary basis. Stockpiles shall be graded to a minimum 1:1 slope at the end of each work day where stockpiles have been disturbed during the active breeding season.

Yolo County Climate Action Plan

To fulfill General Plan Action CO-A117, Yolo County prepared a Climate Action Plan (CAP) in 2011. The County's CAP includes an inventory of GHG emissions from unincorporated areas in the County during the years 1990 and 2008 as well as projections of emissions for the years 2020, 2030, 2040, and 2050. With regard to the emissions inventory, the sectors of energy, transportation, agriculture, solid waste, stationary sources, wastewater treatment, as well as construction and mining. Emissions projections for future years were limited to those sources over which the County maintains jurisdiction; thus, the sectors of mining and construction equipment, as well as stationary sources, were excluded from emissions projections.¹⁴ Due to the exclusion of the foregoing sectors, the County's CAP did not include reduction measures specifically related to mining or mining equipment; rather the County relied on State imposed measures for that sector given state authority. These are discussed further below. Although the County's CAP did not include measures specifically related to construction or mining equipment, the County's CAP does

¹⁴ Yolo County. Yolo County Climate Action Plan: A Strategy for Smart Growth Implementation, Greenhouse Gas Reduction, and Adaptation to Global Climate Change [pgs. 14-15]. March 15, 2011.

contain measures that would affect GHG emissions related to energy generation and consumption throughout the County as well as measures related to reducing emissions from agricultural activities.

Following the proposed reclamation of the CEMEX project site, agricultural activities would be anticipated to resume within the site. The County's CAP includes six specific measures, as well as multiple supporting measures to reduce direct emissions from agricultural activities within the County and increase carbon sequestration. Implementation of the County's CAP measures during future agricultural activity within the CEMEX site would contribute to the GHG emissions reductions identified within the County's CAP.

The County's CAP acknowledges that even in the sectors where the County does not have direct control, such as emissions from construction and mining equipment, actions of other entities would contribute to GHG emissions reductions. For instance, the County's CAP notes that YSAQMD has jurisdiction over stationary sources, and YSAQMD is charged with implementing statewide emissions reductions programs including those programs intended to reduce GHG emissions. Furthermore, CARB has implemented various rules and regulations, such as the Advanced Clean Cars Program, Low-Carbon Fuel Standard, Renewable Portfolio Standard Program, energy efficiency standards, and the Cap-and-Trade Program, which would result in reductions of GHG emissions. Compliance with the rules and regulations implemented by YSAQMD and the CARB would contribute to emissions reductions that would aid attainment of the GHG reductions goals presented in the County's CAP.

4.2.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methods used to analyze and determine the changes in the proposed project's potential impacts related to air quality, GHG emissions, and energy. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. An impact to air quality, GHG emissions, and energy resources is considered significant if the proposed project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan.
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
- c) Expose sensitive receptors to substantial pollutant concentrations.
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
- e) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

- f) Fundamentally conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.
- g) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- h) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
- i) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to air quality, GHG emissions or energy.

Thresholds of Significance for Criteria Air Pollutants, TACs, and Odors

The YSAQMD has established significance thresholds for criteria pollutants to assist Lead Agencies in determining whether a proposed project may have a significant air quality impact. These thresholds, contained within Section 3.0 of the YSAQMD Handbook are presented in Table 4.2-4, below. These thresholds apply to both construction and operational impacts.

Table 4.2-4: YSAQMD Project-Level Thresholds of Significance for Criteria Air Pollutants of Concern

Pollutant	Thresholds of Significance
ROG	10 tons/year
NOx	10 tons/year
PM10	80 lbs/day ¹
CO	Violation of a state ambient air quality standard ² for CO

Source: YSAQMD, 2007

Notes:

¹ Includes both exhaust PM₁₀ and dust PM₁₀.

² California Ambient Air Quality Standard is 20 parts per million for 1-hour average CO concentrations and 9 parts per million for 8-hour average CO concentrations.

The YSAQMD has also adopted thresholds for TACs, odors, and cumulative impacts. Proposed development projects that have the potential to expose the public to TACs from stationary sources in excess of the following thresholds would be considered to have a significant air quality impact:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) equals to 10 in one million or more.
- Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index equal to 1 for the MEI or greater.

Off-road mining equipment and haul trucks used for the proposed project would be considered potential sources of TAC emissions. Although the YSAQMD threshold for TAC exposure was specified for stationary sources, it is a common industry practice to apply these thresholds to other sources of TAC emissions. Accordingly, this analysis uses the YSAQMD stationary source TAC emissions thresholds listed above for the purposes of determining health risks to sensitive receptors exposed to TAC emissions from project operations involving off-road mining equipment and haul trucks.

Regarding odors, the YSAQMD suggests that a project may reasonably be expected to have a significant adverse odor impact where it “generates odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property.”

Regarding cumulative impacts, the YSAQMD suggests that an air quality analysis should address a project’s cumulative impact on ozone and localized pollutants. Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative impact. CO impacts are cumulatively significant when modeling shows that the combined emissions from the project and other existing and planned projects (i.e., background concentration) will exceed air quality standards. The cumulative impact should be evaluated using the screening criteria mentioned in the project level thresholds to determine if cumulative development could cause a violation of the CAAQS.

Thresholds of Significance for GHG Emissions

The YSAQMD has not adopted a GHG-related threshold of significance for use in CEQA analysis. Although YSAQMD has not adopted a formal threshold, the Bay Area Air Quality Management District (BAAQMD) has published quantitative thresholds that can be applied to this project. This approach is permissible per CEQA Guidelines Section 15064.4, which states that lead agencies are granted discretion to establish their own significance thresholds, including looking to thresholds developed by other public agencies, so long as the threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7(c)). This approach is also supported by the recent court case, *Center for Biological Diversity v. Department of Fish and Wildlife and Newhall Land and Farming* (2015) 62 Cal.4th 204, whereby the Court explained that an agency may rely on existing numerical thresholds of significance for GHG emissions developed by another air district.

BAAQMD's bright line operational threshold is 10,000 metric tons per year (MT/year) for CO₂e emissions, which was adopted to achieve AB 32's goal of reducing GHG emissions to 1990 levels by year 2020. A project-specific threshold could be linearly scaled by applying SB 32's reduction target of 40 percent below 1990 GHG emissions level by 2030 to the 10,000 MTCO₂e/year bright-line threshold, which would bring the threshold of significance for operational GHG emissions to 6,000 MTCO₂e/year. It is not the intent of this document to propose the adoption of this threshold as a mass emissions limit or CEQA GHG threshold for general use. Rather, this scaling approach can put the project-generated GHG emissions in the appropriate statewide context so that the magnitude of the project-related emissions is understood and its relative significance may be determined.

The County’s recently certified CCAP Update Final EIR conservatively considered any net increase in GHG emissions occurring as a result of the CCAP to constitute a significant impact. Under this conservative approach, if the project would result in a net increase in GHG emissions as compared to the baseline conditions, then the project would be considered to result in a significant impact. The County has applied this approach to other mining projects, including the

Teichert Shifler Mining and Reclamation Project (2021) and previously the Granite Esparto Mining and Reclamation Project (2010).

Although a 6,000 MTCO₂e/year threshold could be used to assess project GHG impacts, to be consistent with the CCAP Update FEIR, the analysis presented in this Draft SEIR will assume that any net increase in project GHG emissions would be potentially significant.

Thresholds of Significance for Energy Resources

Quantitative thresholds for the analysis of energy related impacts have not been adopted by the County or any other local, regional, or statewide agency. Therefore, the analysis of potential impacts related to energy presented in this Draft SEIR is primarily qualitative. Nonetheless, where estimates of existing and future energy demand exist, the quantified level of energy demand is presented and analyzed in this Draft SEIR.

Thresholds of Significance from the 1996 EIR

The standards of significance presented in the 1996 EIR have been updated by the criteria listed above. For each standard below, there is notation (in italics) to show how each of the standards from the 1996 EIR are addressed by the 2022 standards above. As the relevant State and local requirements were not in effect at the time, the 1996 EIR did not address GHG emissions or energy. The 1996 EIR considered that the project would have a significant effect on air quality if it would:

- Exceed the following quantitative thresholds:
 - ROG: 82 pounds/day (15 tons/year)
 - NOx: 82 pounds/day (15 tons/year)
 - PM10: 82 pounds/day (15 tons/year)
 - CO: 550 pounds/day (100 tons/year)

Impacts associated with the exceedance of established thresholds are addressed and evaluated under significance criterion “b” using the more conservative thresholds of significance currently recommend by YSAQMD.

- Affect the following qualitative thresholds:
 - Affect the attainment of Federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
 - Generate vehicle trips that cause a CO hot spot.
 - Subject sensitive receptors within 0.25 mile to toxic air contaminant emissions or elevated CO emissions.

- Result in the production or disposal of a material that poses a health hazard, and subject sensitive receptors to toxic air emissions.
- Create or subject sensitive receptors to an objectionable odor.

Impacts associated with the qualitative thresholds identified above are addressed and evaluated by significance criteria “a,” “b,” “c”, and “d” above.

The 1996 EIR did not considered environmental impacts associated with GHG emissions or energy resources.

Approach to Analysis

A detailed analysis of air quality, GHG emissions, and energy resources is documented in the Air and Greenhouse Gas Emissions Study prepared by Compass Land Group (Appendix G) and peer reviewed by Baseline Environmental Consulting. The approach to analysis documented in the study is provided.

Air Pollutant and GHG Emissions

The project’s air quality and GHG emissions evaluation accounts for stripping and mining related emissions, processing plant emissions, vehicle traffic, indirect GHG emissions from electricity use, off-road heavy equipment, and on-road mobile source emissions. The net change in air quality and GHG emissions associated with implementation of the proposed project was estimated based on CEMEX’s existing operations at the Cache Creek facility. The net emissions changes from the proposed project are then compared against thresholds of significance summarized above.

The net emissions were calculated by comparing the change in emissions under the maximum production scenario for the project to the baseline condition. The CEQA baseline condition used for purposes of this analysis is based on review of historical production information and consultation with the County. CEMEX’s existing facility activities include mining, conveyor transport, aggregate processing, ready-mix concrete processing, and construction materials recycle processing, with associated off-road and on-road mobile equipment use.

For the baseline condition of the mining operation and aggregate plant, the 2021 actual production rate with the applicable 2021 emissions factors was utilized to provide a representative estimate of baseline emissions during the CEQA Notice of Preparation year. Based on a review of historical trends, the 2021 production rate is consistent with the 10-year average production rate, within 1.5 percent. Averages were also determined for both plant raw feed tons (to account for all particulate matter emissions associated with the production process) and for tons sold (to account for mobile source emissions associated with truck hauling).

For the baseline condition of the ready-mix concrete plant and recycle plant, each plant’s production for the 10-year period between 2012 and 2021 was reviewed. Unlike for the aggregate plant, the production years 2021 for ready-mix concrete and 2021 and 2019 for recycling had either zero or atypically low production compared to the 10-year average. The ten-years of tonnage data for each (ready-mix concrete and recycling) show that 2021 was not representative

of typical production levels at either plant. Conversely, the ten-year average is a representative range and therefore better represents actual conditions.

No recycling occurred in 2019 and 2021 because CEMEX was not able to source concrete and asphalt rubble as other recycle locations were closer to the jobs that generated the source materials. There is no specific limitation in the current permit on the amount of recycling. Recycling relies on imported material and is not included in the max aggregate production tonnage numbers. The County's mining program encourages recycling. Recycling impacts are indirect impacts of the mining operation. Annual impacts are not expected to change as a result of the project. Potential cumulative impacts from the 20-year extension of the existing operations are analyzed below and in Chapter 6.0.

Ready-mix production was minimal in 2021 due to the location of customer's jobs in relation to the CEMEX and other ready-mix sites. CEMEX only operated the plant a few times when the volume for a particular job warranted opening the plant for production. In general, CEMEX has indicated that it does not make economic sense to operate the plant when the quantities requested by customers are low. Overall, the 10-year averaging period represents a baseline that captures economic changes resulting from fluctuating market demand. There is no specific limitation in the current permit on production at the ready-mix plant and ready-mix production relies on rock already included in the max allowed aggregate production tonnage. In other words, the max tonnage is a "throttle" on the amount of concrete produced and importation of aggregate material does not occur. The concrete batch plant process involves adding other raw materials (e.g., cement and fly ash) to rock and sand from the mining site to make concrete which is a different product with a different market, different customers, and different trucks from the aggregate market. Ready-mix impacts are indirect impacts of the mining operation. While impacts annually are not expected to change as a result of the project, the proposal will allow for 20 more years of those impacts, and to the extent cumulative impacts are relevant, the cumulative impacts will also change.

At the time of study, the latest version of the California Emissions Estimator Model (CalEEMod), version 2020.4.0, was used to estimate stripping and mining related emissions. CalEEMod is a widely accepted modeling tool maintained by the California Air Pollution Control Officers Association. CalEEMod incorporates state and locally approved emission factors and methodologies for estimating both the daily maximum and annual average emissions levels for criteria pollutants and GHG emissions associated with land development projects, including industrial activities. The USEPA AP-42 emission factors were used to estimate processing plant and conveyor transport related emissions. CARB's 2021 EMFAC model was used to estimate mobile source emissions.

For both baseline and project conditions, mobile source emissions were evaluated using estimates of vehicle miles travelled (VMT) based on the average annual production and employee workforce. Trip distances for raw material imports to the existing ready-mix plant and finish product deliveries from the project site to customers were provided by CEMEX. For raw material imports, the actual average trip distance of 33 miles from the CEMEX cement terminal at the Port of West Sacramento was used. For finish product deliveries, an average trip distance of 31 miles was used based on a full year of truck trip delivery information provided by CEMEX, which is

higher than the EMFAC model estimate of six miles for a haul truck. On-road mobile source emissions were then estimated by multiplying the VMT estimates for each trip type by the applicable EMFAC emissions factor. For GHG emissions, emission factors from “2021 The Climate Registry for PG&E” were used to estimate CO₂ emissions, and emissions factors from CalEEMod were used to estimate CH₄ and N₂O emissions. Additional assumptions used for CalEEMod are documented in Appendix G.

Local Carbon Monoxide Emissions

For evaluation of local CO emissions, the YSAQMD’s preliminary screening approach was used to estimate whether or not the project’s traffic impact would cause a potential CO hotspot at any given intersection. Section 4.1.2 of the YSAQMD’s Handbook for Assessing and Mitigating Air Quality Impacts presents the following screening approach for CO emissions:

- If either of the following criteria is true of any intersection affected by the project traffic, then the project can be said to have the potential to create a violation of the CO standard (in the absence of project specific modeling that suggests otherwise):
 - A traffic study for the project indicates that the peak-hour Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to an unacceptable LOS (typically LOS E or F); or
 - A traffic study indicates that the project will substantially worsen an already existing peak-hour LOS F on one or more streets or at one or more intersections in the project vicinity. “Substantially worsen” includes situations where delay would increase by 10 seconds or more when project-generated traffic is included.

Health Risk Assessment for TAC Emissions

A detailed assessment was prepared examining public health risk from exposure to diesel particulate matter and respirable silica resulting from the proposed project. This results are documented in Health Risk Assessment (HRA) prepared by Compass Land Group (Appendix J). The Project will involve the continuation of stripping, mining, concurrent reclamation, and ancillary aggregate, ready-mix concrete, and recycle processing operations. Each of these activities has the potential to emit toxic air contaminants (TACs), fugitive dust in the form of fine particulate matter (PM 2.5), and respirable silica. These exposures can lead to various health impacts:

1. Cancer risk (reported as a probability)
2. Acute non-cancer risk (reported as a hazard index)
3. Chronic non-cancer risk (reported as a hazard index)

The preparation of health risk assessments is a three-step process. The first step is to identify the potential contaminants that may contribute to public health risks. The second step is to assess the amount of contaminants that may reach the public (exposure assessment). The third and last step is to calculate the magnitude of the health risk as a result of exposure to harmful

contaminants on the basis of the toxicology of the contaminants. Dispersion modeling was performed using the latest version (at the time of the study) of AERMOD View (version 10.2.1) developed by Lakes Software. The Hotspots Analysis and Reporting Program Air Dispersion Modeling and Risk Tool (HARP2), dated May 1, 2019, developed by the CARB and Office of Environmental Health Hazard Assessment (OEHHA), was used to calculate Project health risks.

Odors

For consideration of odors, YSAQMD recommends screening of potential odor impacts for the following two situations:

- Projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- Residential or other sensitive receptor projects or other projects that may attract people locating near existing odor sources.

Further, the YSAQMD Handbook states that for odor sources locating near existing receptors, the determination of significance should be based on whether odor complaints from the public have occurred in the vicinity of a similar facility at a similar distance.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures and COAs identified in the 1996 EIR are summarized in Table 4.2-5. The table provides a discussion of the status of each mitigation measure.

Table 4.2-5: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.7-1	The proposed project would result in increases in PM10 emissions. This is considered to be a significant and unavoidable impact.	Mitigation Measure 4.7-1a/Condition of Approval No. 63) ^a requires: “Implement the performance standard included in Section 10-4.407 of the County Off-Channel Surface Mining Ordinance.” This section requires conveyors which were installed and operational as of October 2002. See Condition of Approval No. 28.3. The operator has satisfied this condition.
4.7-2	The project would result in an increase in emissions of ozone precursors. This is considered to be a significant and unavoidable impact.	Mitigation Measure 4.7-2a/Condition of Approval No. 64) ^a requires: “Implement the performance standards included in Sections 10-4.407 and 10-4.415 of the Off-Channel Surface Mining Ordinance.” As noted above, the operator utilizes electric conveyors as required by Section 10-4.407. Section 10-4.415 requires equipment maintenance, restricts engine idling, and prohibits refueling near water bodies. The operator must ensure compliance with both

		sections, and specifically address compliance in their annual compliance reports.
4.7-3	The project would affect the attainment of local or regional air quality goals. This is considered to be a significant and unavoidable impact.	<p>Mitigation Measure 4.7-3a/Condition of Approval No. 65)^a requires:</p> <p>“Implement Mitigation Measures 4.7-1a and 4.7-2a of the Final EIR for the proposed project.”</p> <p>As noted above, the operator utilizes electric conveyors as required by Section 10-4.407. Section 10-4.415 requires equipment maintenance, restricts engine idling, and prohibits refueling near water bodies. The operator must ensure compliance with both sections, and specifically address compliance in their annual compliance reports.</p> <p>Condition of Approval No. 65.1^a requires:</p> <p>The operators are encouraged to use cleaner vehicles and equipment and retrofit existing vehicles and equipment with diesel particulate filters (DPFs). Pursuant to Section 10-4.414.1 (Energy) of the Mining Ordinance, wherever practical and feasible, aggregate facilities shall use clean electric energy from the grid or install alternative on-site electricity generation systems to replace diesel equipment and reduce criteria pollutant emissions.</p> <p>CEMEX installed a wind turbine energy system in 2012 which supplies renewable energy for 20% to 30% of the energy demand at their plant facility.</p>

Source: *Baseline Environmental Consulting, 2021.*

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review. As modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously

shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.2-1: The proposed project would conflict with or obstruct implementation of the applicable air quality plan. The impact would be *less than significant*.

The project proposes to continue mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to air quality emissions would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR and would remain less than significant.

Yolo County is currently in non-attainment for PM10 and ozone. Because the proposed project would result in activities that emit criteria air pollutants that would contribute to the regional emission burden of PM10 and ozone precursors, the proposed project could potentially contribute to difficulties implementing the applicable air quality plans which are the 1992 Yolo-Solano Air Quality Attainment Plan and the Sacramento Area Regional Ozone Attainment Plan.¹⁵

As shown in Table 4.2-6, the proposed project's net increase in emissions of ozone precursors (ROG and NOx) and PM10 would not exceed the YSAQMD's thresholds of significance, which means the project would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment. In addition, the proposed project is required to continue complying with State and local regulations that would reduce emissions of criteria air pollutants, including the YSAQMD rules on limiting the discharge of air contaminants and particulate matter and the following Mining Ordinance requirements:

- Section 10-4.407 for the use of electric conveyor systems rather than diesel when feasible;
- Section 10-4.414 for dust control on access roads and stockpiles;
- Section 10-4.415 for equipment tuning and limits on idling time;
- Section 10-4.433 for managing stockpiles.

Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plans and this impact would be less than significant.

¹⁵ This includes the 2013 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, the 2013 PM2.5 Maintenance Plan and Redesignation Request, and the 2010 PM10 Implementation/Maintenance Plan and Redesignation Request for the Sacramento County.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-2: The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. The impact would be *less than significant*.

The existing operations generate criteria air pollutant emissions primarily from mining (and associated stripping and grading operations), transport of mined materials by a combination of truck and conveyor, processing plant operations, and on-road passenger vehicle and truck trips. A complete summary of the project's emissions, including the modeling inputs, assumptions, and results, is included in Appendix G. Table 4.2-6 presents the criteria air pollutants and ozone precursor emissions analysis for the existing operation and proposed project in comparison to YSAQMD's project-level thresholds, which support compliance with the CAAQS and NAAQS.

As shown in Table 4.2-6, the project would result in a net increase in emissions of ROG, NO_x, and PM₁₀ from the mining operation and aggregate plant due to the proposed increase in mining production rates compared to baseline production rates. The project would also result in a net increase in PM₁₀ emissions from the ready-mix concrete plant due to the anticipated increase in concrete production that would correspond with the increased mining of aggregate materials, but the exhaust emissions of ROG and NO_x would generally remain the same as the baseline emissions due to improvements in fleetwide vehicle emissions overtime (i.e., cleaner engine technologies). The project scenario reflects a net decrease in ROG, NO_x, and PM₁₀ emissions from the recycle plant because the amount of recycling is not expected to change under the project, but emissions from heavy-equipment and vehicles would improve over time. Overall, the modeling results indicate that the net increase in project criteria pollutant emissions are well below applicable YSAQMD thresholds of significance for CEQA. Therefore, the project would not result

in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment and this impact would be less-than-significant.

Table 4.2-6: Criteria Air Pollutants Emissions Analysis

Emissions Category	ROG (tons/year)	NOx (tons/year)	PM10 (lbs/day)
Baseline [2012-2021 Conditions*]			
Mining	0.41	4.90	102.98
Dredge and Aggregate Plant	0.91	8.37	94.96
Ready-Mix Plant	0.03	0.28	15.32
Recycle Plant	0.03	0.23	60.28
On-Road Mobile Sources	0.14	6.02	1.02
Total	1.52	19.8	274.56
Proposed Project			
Mining	0.49	6.07	110.92
Dredge and Aggregate Plant	0.91	8.38	108.70
Ready-Mix Plant	0.03	0.28	19.41
Recycle Plant	0.02	0.15	59.41
On-Road Mobile Sources	0.13	6.57	0.74
Total	1.58	21.45	299.18
Net Change (Project – Baseline)	0.06	1.65	24.62
Threshold	10	10	80
Exceed Threshold?	No	No	No

Source: Compass Land Group, 2022 (Appendix G).

Notes: lbs = pounds

Minor differences in totals due to rounding. See Appendix G for additional details.

* As described in the *Approach to Analysis* above, the baseline condition for mining, dredge and aggregate plant, and on-road mobile emissions was based on the year 2021 and the baseline condition for read-mix plant and recycle plant emissions was based on a 10-year average between 2012 and 2021.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None Required.

Impact 4.2-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations. The impact would be *less than significant*.

Exposure to Toxic Air Contaminants

Table 4.2-7 below summarizes the project health risks in comparison to YSAQMD significance thresholds:

Table 4.2-7: Summary of Project Health Risks

Risk Metric	Maximum Off-Site Value	Significance Threshold	Significant?
Residential Cancer Risk per Million (30-year exposure)	8.1 at private residence south of Project site along Hwy 16	10	No
Worker Cancer Risk (25-year exposure)	0.6 at private agricultural business north of Hwy 16	10	No
Cancer Risk per Million at Discrete Sensitive Receptors	2.9 at Madison Community High School 4.4 at Madison Migrant Child Development Center	10	No
Chronic Hazard Index	Residential 0.01 Worker 0.02	1.0	No
Acute Hazard Index	Residential 0.00 Worker 0.00	1.0	No

Source: Public Health Risk Assessment of Diesel Particulate Matter and Respirable Silica, CEMEX Construction, Compass Land Group, Table 2, page 5, August 2022 (Appendix J).

The risk assessment process contains numerous, conservative assumptions to ensure that public health risks are not underestimated. As a result, the modeling assumptions may overstate the Project’s contribution and the public’s exposure to health risks. The analysis demonstrates that the potential health risk impact in terms of excess cancer risk and noncancer hazards associated with implementation of the proposed project does not meet any of the applicable significance thresholds, and is therefore less than significant.

Exposure to Carbon Monoxide

CO concentrations in YSAQMD’s jurisdiction and the Sacramento Valley Air Basin as a whole currently meet all NAAQS and CAAQS for CO (see Table 4.2-2). The State standards, which have been adopted as part of YSAQMD’s operational thresholds of significance, are more restrictive than the NAAQS at 9 parts per million (ppm) for the maximum 8-hour concentration and 20 ppm for the maximum 1-hour concentration. For context, CO measurements taken at the Sacramento-Bercut Drive air monitoring station adjacent to I-5 for the full calendar year 2020 indicate a maximum daily CO concentration of 1.6 ppm occurring on only three days in September and October 2020, which is well below the CAAQS (see Appendix G for more details).

As demonstrated in project Traffic Operations Memorandum (Appendix K), the proposed project would maintain an LOS standard of C or better during the AM and PM peak hours for most of the nearby intersections, except for SR 16/County Road 96 (CR 96). The minor street (CR 96)

approach to the intersection operates at LOS F during the busy months. This indicates that drivers in busy months are waiting over 50 seconds before accessing SR 16. This existing LOS deficiency cannot be reasonably or feasibly resolved by the proposed project because the required reduction in trips to achieve the target LOS would likely exceed the proposed project's entire trip contribution during AM and PM peak hours. However, most of the truck traffic accessing the proposed project would be from I-505 to the west of the project site, which would not affect the SR 16/CR 96 intersection to the east of the project site. Furthermore, any truck traffic generated by the proposed project that would travel east of the project site along SR 16 would not be expected to turn onto CR 96 and cause a substantial increase in delays (10 seconds or more) during the AM and PM peak hours. As a result, the proposed project would not meet the YSAQMD's screening criteria for creating a potential CO hotspot. Therefore, the proposed project would have a less-than-significant impact related to the exposure of sensitive receptors to substantial CO concentrations.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-4: The proposed project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. The impact would be *less than significant*.

Project activities are not expected to introduce significant sources of odors. The proposed project does not involve odor-generating sources aside from direct exhaust emissions associated with operation of construction, off-road, and mobile equipment that generally dissipate rapidly into the atmosphere as distance increases from the source. The proposed project is not located near a substantial number of existing sensitive receptors or places where people are expected to congregate, and does not propose any residential or other land uses that would introduce sensitive receptors to the existing facility.

The YSAQMD CEQA Handbook presents a list of common types of facilities that are known to produce odors, such as landfills, composting facilities, rendering plants, and asphalt concrete batch plants. While Vulcan Materials operates an existing asphalt concrete plant on the CEMEX property, the asphalt plant operation is separately permitted and not subject to any modifications proposed by the project. Therefore, the project activities do not propose or fall under any of the land use categories for which odors would typically be a concern. Furthermore, the YSAQMD CEQA Handbook states that for projects locating near a source of odors where there is currently no nearby development and for odor sources locating near existing receptors, the determination of significance should be based on whether odor complaints from the public have occurred in the vicinity of a similar facility at a similar distance. YSAQMD has recorded zero odor complaints for CEMEX's or Vulcan's existing Cache Creek facilities.

The proposed project's potential odor impacts would be less-than-significant based on the nature of the project (i.e., the continuation of a fully permitted mining and processing facility), YSAQMD's odor screening criteria, and YSAQMD's record of zero odor complaints for the existing facilities.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-5: The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be *significant*.

The proposed project would generate additional GHG emissions primarily from mining (and associated stripping and grading operations), transport of mined materials by a combination of truck and conveyor, processing plant operations, and on-road passenger vehicle and truck trips. A complete summary of the project's emissions, including the modeling inputs, assumptions, and results, is included in Appendix G.

As described above, this analysis assumes that any net increase in GHG emissions generated by the proposed project would be considered potentially significant. However, to put the proposed project into statewide context, GHG emissions are also presented in relation to an operational threshold of 6,000 MTCO₂e/year, which is intended to demonstrate how an industrial project would meet the statewide GHG reduction target for 2030 under SB 32.

As shown in Table 4.2-8, the proposed project’s GHG emissions would be well below an operational threshold of 6,000 MTCO₂e/year. However, the project would still result in a net increase 1,038 MTCO₂e/year relative to existing baseline conditions. Because County policy finds a net increase in GHG emissions to be potentially significant, the GHG emissions impact associated with implementation of the proposed project is considered potentially significant.

Table 4.2-8: Greenhouse Gas Emissions Analysis

Emissions Category	MTCO₂e/Year
Baseline Emissions	5,668
Project Emissions	6,706
Net Change (Project – Baseline)	1,038
BAAQMD-Based Threshold (for context only) ¹	6,000
CEQA Significance Threshold ²	0
Exceed Threshold?	Yes

Source: *Compass Land Group, 2022 (Appendix G)*.

Notes: MTCO₂e/year = metric tons of carbon dioxide equivalents per year

1. BAAQMD’s operational threshold for GHG emissions is 10,000 MTCO₂e/year. This threshold could be interpolated to 6,000 MTCO₂e/year to achieve the 40% reduction target of SB 32.
2. Per County guidance, any net increase in project GHG emissions would be potentially significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new information related to regulation and management of GHG emissions that was not previously known at the time of the 1996 EIR that will result in a new significant impact. Specifically, the project will result in a net increase of 1,038 MTCO₂e/year relative to existing baseline conditions.

Implementation of Mitigation Measure 4.2-5 would reduce this impact to a less-than-significant level.

Mitigation Measure 4.2-5

Prior to the August 11, 2027 (the original date of expiration of the 1996 entitlements), the operator shall submit for review and approval, a Greenhouse Gas Reduction Plan (GHGRP) to the Yolo County Department of Community Services. In order to demonstrate that implementation of the proposed project would not result in a net increase in GHG emissions from baseline conditions, the GHGRP shall demonstrate how annual operational emissions of the proposed project would be reduced to or below the annual baseline emissions of 5,668 MTCO₂e. Strategies to achieve emissions reductions may include, but are not limited to, the following:

- a. Replacement of existing fossil fueled equipment with hybrid or electrically powered equipment;*
- b. Purchase of an increased proportion of electricity from renewable sources;*
- c. Installation of on-site renewable energy systems (Note: The operator has an existing wind turbine that provides renewable energy and was accounted for in the impact analysis. This measure would allow for installation of additional renewable energy systems.);*
- d. Use of a blend of renewable diesel and biodiesel (80/20 mix) to power mobile equipment;*
- e. Installation of electric vehicle (EV) charging stations in parking areas for passenger automobiles;*
- f. Purchase of verified carbon credits. Credits purchased as part of this mitigation option shall be real, quantifiable, permanent, verifiable, enforceable, and consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the County and/or the YSAQMD. The credits must be purchased through one of the following: 1) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; 2) any registry approved by CARB to act as a registry under the California Cap and Trade Program; or 3) through the CAPCOA GHG Reduction Exchange.*

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.2-6: The proposed project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The impact would be *less than significant*.

The CAP is the main plan adopted for the Yolo County for the purpose of reducing GHG emissions and addressing climate change. GHG emission inventories for the unincorporated Yolo County were prepared as a part of the benchmarking process for the following sectors: Agriculture, Transportation, Energy, Solid Waste, Wastewater, Stationary Sources, and Mining and Construction. GHG emissions from the mining and construction sector include emissions associated with on-site use of heavy-duty equipment. However, GHG emissions from transportation energy use associated with the mining land use are captured in other relevant sectors and are not included in the mining and energy sector. Because the County lacks jurisdictional control over the heavy equipment used in the construction and mining sector, this sector was only included in the historical emission inventories for 1990 and 2008, and was excluded from the CAP projections for future years. Historically, heavy duty equipment used in mining and construction made up about 2 percent and 4 percent of total emissions in 1990 and 2008, respectively. The heavy equipment used for mining under the CCAP was not included in the CAP emission inventory projections because the County determined that they did not have the jurisdiction to control or regulate these types of GHG emissions, and thus relied on State programs for emissions control of this source. The mining industry, like other industries throughout the State must comply with applicable statewide emissions controls for heavy equipment. Therefore, operation of heavy equipment associated with the proposed project would not conflict with the CAP.

Electricity use under the proposed project would be consistent with the relevant CAP measures for the energy sector. The CAP encourages the development and use of cleaner sources of electricity, which would be available to the mining operators. In 2012, CEMEX installed a wind turbine energy system which supplies renewable energy for 20 to 30 percent of the energy demand at their plant facility (see additional discussion under Impact 4.2-7). The remainder of the energy use is supplied by PG&E. In 2021, approximately 93 percent of the electricity generated by PG&E came from GHG free resources, including renewables, nuclear, and large hydroelectric power. Therefore, electricity use for the proposed project would not conflict with the CAP.

The Transportation and Land Use Chapter of the Yolo County CAP requires the reduction of vehicle miles traveled in new development, but is not applicable to the mining land use. Therefore, transportation associated with the proposed project would not conflict with the CAP. In conclusion, the proposed project would not conflict with the applicable plans, policies, and regulations related to GHG emissions. This impact is less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously

identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-7: The proposed project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation. The impact would be *less than significant*.

CEMEX's existing facility consumes energy in the forms of fossil fuels and electricity as part of the ongoing mining and construction materials processing operations. These operations include offroad heavy equipment use, conveyor transport, truck transport, aggregate processing, and ready-mix concrete processing operations. The main sources of energy consumption are electricity and diesel fuel, as well as gasoline fuel for worker and other passenger vehicle trips.

Under existing baseline conditions, CEMEX's operations consume an estimated 3,543 megawatts of electricity, 537,084 gallons of diesel fuel, and 20,033 gallons of gasoline per year. In order to meet its existing demands for electricity, CEMEX partnered with Foundation Windpower to install a wind turbine on the property, which is fully operational. CEMEX was the first aggregate producer in Yolo County to do so. Foundation Windpower owns and operates the wind turbine and the electricity generated by the turbine is fed into the grid to off-set a portion of the electricity used by existing operations.

The proposed project would increase electricity, diesel, and gasoline consumption relative to the existing baseline conditions in order to achieve the currently permitted levels of mining and aggregate throughput production. This comparison is done pursuant to the analytical requirements of CEQA, but does not mean that the proposed project would result in the wasteful, inefficient or unnecessary consumption of energy resources. The proposed project does not propose any energy consumption beyond what is typical for this type of operation. Consumption of energy represents an ongoing cost to CEMEX, which creates an incentive for CEMEX to minimize the use of energy on-site through efficient means and operations. Further, while a comparison of the proposed project to baseline conditions reflects a net increase in energy consumption, CEMEX's Existing Entitlements already allow for the consumption of energy as necessary to achieve the currently permitted 1,000,000 tons per year sold limit of aggregate production at the facility.

Table 4.2-9 summarizes the estimated energy consumption of the proposed project relative to the existing conditions baseline. A complete report of baseline and project energy consumption can

be found in Appendix G. The proposed project would increase diesel fuel consumption by 19%, decrease gasoline consumption by 2%, and increase electricity consumption by 47% relative to the CEQA baseline, consistent with the modeled increase in production levels up to the currently permitted limits for the facility as applicable.

The proposed project’s gasoline and diesel consumption would also be subject to State and federal regulations regarding fuel efficiency standards for on-road vehicles and off-road equipment. For example, the off-road equipment operated as part of the proposed project would be subject to the In-Use Off-Road Diesel Vehicle Regulations, which require strict emissions reductions into the future. Emissions reductions are often achieved through engine retrofits to a higher tier, which emit fewer emissions, partially through increased fuel efficiency. Accordingly, operational energy demand would decrease into the future as off-road equipment is upgraded to meet increasingly stringent emissions standards. The modeling results summarized in Table 4.2-9 do not account for these future reductions beyond the year 2022.

Based on the foregoing, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less-than-significant.

Table 4.2-9: Energy Consumption Summary

Energy Type	Energy Consumption	Units
Baseline (2012-2021 Conditions*)		
Electricity	3,543,082	kWh / year
Diesel	537,084	gal / year
Gasoline	20,033	gal / year
Proposed Project		
Electricity	5,224,579	kWh / year
Diesel	638,729	gal / year
Gasoline	19,687	gal / year
Net Change (Project – Baseline)		
Electricity	1,681,497	kWh / year
Diesel	101,645	gal / year
Gasoline	-346	gal / year

Source: *Compass Land Group, 2022 (Appendix G)*.

Notes: kWh/year = kilowatt-hours per year; gal/year = gallons per year

* As described in the *Approach to Analysis* above, the baseline condition for the mining, dredge and aggregate plant, and on-road mobile operations was based on the year 2021 and the baseline condition for the ready-mix plant and recycle plant operations was based on a 10-year average between 2012 and 2021.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-8: The proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The impact would be *less than significant*.

Yolo County has not adopted an energy conservation plan. However, as discussed under Impact 4.2-7, the proposed project would not conflict with measures related to renewable energy or energy efficiency in the Yolo County CAP. The effects of the proposed project on local and regional energy supplies and on requirements for additional capacity would be minimal.

The proposed project would not conflict with any state or local plans for renewable energy or energy efficiency. The impact is less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.2-9: The proposed project would cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to air quality, GHG emissions, or energy. The impact would be *less than significant*.

Table 4.2-10 below provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to air quality, GHG emissions, and energy. The policies and regulations identified in the table are those that have been revised or put into effect since the 1996 EIR, as the underlying CEMEX mining project has been determined to be consistent with County program policies and regulations.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.2-10: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy CI-4.4 Support and encourage low emission or nonpolluting forms of transportation.</p>	<p>Mitigation Measure 4.2-5 requires preparation and implementation of a Greenhouse Gas Reduction Plan, which would consider installation of electric vehicle (EV) charging stations in parking areas for passenger automobiles. Furthermore, the proposed project would not conflict with CARB's 2017 Scoping Plan, which supports statewide vehicle emissions regulations such as the Advanced Clean Cars Program and Low-Carbon Fuel Standard. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CO-6.6 Encourage implementation of YSAQMD Best Management Practices, such as those listed</p>	<p>Section 10-4.414 of the Mining Ordinance requires mining and reclamation projects to implement dust</p>

<p>below, to reduce emissions and control dust during construction activities:</p> <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. • Haul trucks shall maintain at least two feet of freeboard. • Cover all trucks hauling soil, sand, and other loose materials. • Apply non-toxic binders (e.g. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area. • Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). • Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land. • Plant vegetative ground cover in disturbed areas as soon as possible. • Cover inactive storage piles • Sweep streets if visible soil material is carried out from the construction site • Treat accesses to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips or mulch. • Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel. 	<p>control measures. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CO-8.2 Use the development review process to achieve measurable reductions in greenhouse gas emissions.</p>	<p>Mitigation Measure 4.2-5 requires preparation and implementation of a Greenhouse Gas Reduction Plan to reduce the project's operational emissions by at least 1,038 MTCO_{2e}/year. The inclusion of Mitigation Measure 4.2-5 within this Draft SEIR would result in a measurable reduction in GHG emissions, thus fulfilling this policy.</p>
<p>Policy CO-8.4 Encourage all businesses to take the following actions, where feasible: replace high mileage fleet vehicles with hybrid and/or alternative fuel vehicles; increase the energy efficiency of facilities; transition toward the use of renewable energy instead of non-renewable energy sources; adopt purchasing practices that promote emissions reductions and reusable materials; and increase recycling.</p>	<p>Mitigation Measure 4.2-5 requires preparation and implementation of a Greenhouse Gas Reduction Plan, which would consider installation of electric vehicle (EV) charging stations in parking areas for passenger automobiles. CEMEX installed a wind turbine energy system which supplies renewable energy for 20 to 30 percent of the energy demand at their plant facility. The remainder of the energy use is supplied by PG&E, which generates approximately 93 percent of its electricity from GHG free resources, including renewables. The fleet of off-road equipment operated within the project site is subject to statewide regulations such as the In-Use Off-Road Diesel Vehicle Regulation, which required off-road equipment fleets to meet stringent emissions standards. Accordingly, the proposed project would comply with this policy.</p>
<p>Policy CO-8.5 Promote GHG emission reductions by supporting carbon efficient farming methods (e.g. methane capture systems, no-till farming, crop rotation, cover cropping); installation of renewable energy technologies; protection of grasslands, open</p>	<p>CEMEX installed a wind turbine energy system which supplies renewable energy for 20 to 30 percent of the energy demand at their plant facility. Reclamation activities would allow for agricultural activities to resume on 438.6 acres of the project site, following the cessation of mining activities. The</p>

space, oak woodlands, riparian forest and farmlands from conversion to other uses; and development of energy-efficient structures	remaining portions of the site would be reclaimed as an open water lake, habitat, and riparian vegetation. Therefore, the project would comply with this policy.
Policy ED-5.4 Encourage businesses to exceed clean air standards, whenever possible.	See Impact 4.2-2. The proposed project emissions of ROG, NOx, and PM10 would be well below the the YSAQMD's project-level thresholds, which support compliance with the CAAQS and NAAQS. In addition, the proposed project would implement Dust Control requirements in the Mining Ordinance would reduce PM10 emissions to the greatest feasible extent. Therefore, the project would comply with this policy.
Policy CC-4.10 Encourage construction and other heavy equipment vehicles (e.g., mining, agriculture, etc.) to use retrofit emission control devices.	Off-road equipment used during implementation of the proposed project would be required to comply with the In-Use Off-Road Diesel Vehicle Regulation, which includes restrictions on idling time as well as standards for retrofitting and replacing equipment. Therefore, the project would comply with this policy.
Off-Channel Mining Plan	
<i>None applicable.</i>	
Off-Channel Surface Mining Ordinance	
Section 10-4.407 Wherever practical and economically feasible, portable or movable conveyor systems shall be used to transport raw materials and overburden.	Existing on-site conveyor systems would continue to be operated under the proposed project. Therefore, the project would comply with this requirement.
Section 10-4.414 Unless superseded by newer more effective standards, the following measures shall be implemented in order to control fugitive dust: (a) All stockpiled soils shall be enclosed, covered, or have sufficient moisture to control fugitive dust at all times. Inactive soil stockpiles should be vegetated or adequately watered to create an erosion-resistant outer crust. (b) During operating hours, all disturbed soil and unpaved roads shall be adequately watered to keep soil moist. (c) All disturbed but inactive portions of the site shall either be seeded or watered until vegetation is grown or shall be stabilized using methods such as chemical soil binders, jute netting, or other Yolo-Solano Air Quality Management District approved methods.	Existing operations at the CEMEX facility comply with the applicable dust control measures, and implementation of the proposed project would involve continued implementation of all such measures. Therefore, the proposed project would be consistent with this measure.
Section 10-4.414.1 Wherever practical and feasible, aggregate facilities shall use clean electric energy from the grid or install alternative on-site electricity generation systems to replace diesel equipment and reduce criteria pollutant emissions.	CEMEX installed a wind turbine energy system which supplies renewable energy for 20 to 30 percent of the energy demand at their plant facility. The remainder of the energy use is supplied by PG&E, which generates approximately 93 percent of its electricity from GHG free resources, including renewables. The fleet of off-road equipment operated within the project site is subject to statewide regulations such as the In-Use Off-Road Diesel Vehicle Regulation, which required off-road equipment fleets to meet stringent emissions standards. Accordingly, the proposed project would comply with this measure.

<p>Section 10-4.415 All internal combustion engine driven equipment and vehicles shall be kept tuned according to the manufacturer's specifications and properly maintained to minimize the leakage of oils and fuel. No vehicles or equipment shall be left idling for a period of longer than is required by law, recommended by the Air District, or ten (10) minutes, whichever is shorter.</p>	<p>Off-road equipment used during implementation of the proposed project would be required to comply with the In-Use Off-Road Diesel Vehicle Regulation, which includes restrictions on idling time as well as standards for reducing emissions from off-road equipment. One means of reducing emissions is to keep equipment tuned according to the manufacturer's specification. Thus, the project would comply with this measure.</p>
<p>Section 10-4.429 All off-channel surface mining operations shall comply with the following setbacks: (a) New processing plants and material stockpiles shall be located a minimum of one-thousand (1,000) feet from public rights-of-way, public recreation areas, and/or off-site residences, unless alternate measures to reduce potential noise, dust, and aesthetic impacts are developed and implemented.</p>	<p>Based on submitted plans for the project, all processing plants and material stockpiles would be located in compliance with the requirements. Therefore, the project would comply with this measure.</p>
<p>Section 10-4.433 Topsoil, subsoil, and subgrade materials in stockpiles shall not exceed forty (40) feet in height, with slopes no steeper than 2:1 (horizontal:vertical). Stockpiles, other than aggregate stockpiles, shall be seeded with a native vegetative cover to prevent erosion and leaching. The use of topsoil for purposes other than reclamation shall not be allowed without the prior approval of the Director. Slopes on stockpiled soils shall be graded to 2:1 (horizontal:vertical) for long-term storage to prevent use by bank swallows. At no time during the active breeding season (May 1 through July 31) shall slopes on stockpiles exceed a slope of 1:1, even on a temporary basis. Stockpiles shall be graded to a minimum 1:1 slope at the end of each work day where stockpiles have been disturbed during the active breeding season.</p>	<p>The applicant must comply with these requirements as a standard condition of approval. Compliance with this section would reduce the potential for windborne erosion of stockpiled material, which would be considered a source of PM emissions. Therefore, the project would comply with this measure.</p>

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4.3 BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

This Biological Resources section of the Draft SEIR evaluates the biological resources known to occur or potentially occur within the proposed project site and assesses the effects of the proposed project on the biological resources of the County. Information for the section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR,⁴ and the following project-specific reports:

- Proposed Hedgerow Restoration and Irrigation Plans (two exhibits), Zentner Planning and Ecology, January 27, 2023 (see Figures 4.3-4 and 4.3-5)
- Proposed Off-Channel Reclamation Plan for CEMEX Cache Creek, Yolo County, California, prepared by Cunningham Engineering, March 18, 2020 (Appendix D)
- Proposed Habitat Restoration Plan (HRP), CEMEX Cache Creek Mine, Yolo County, California, prepared by Zentner Planning & Ecology, October 2022⁵ (Appendix E)
- Proposed Reclamation Plan Narrative for the Cache Creek Mine, prepared by Compass Land Group, December 2020 (Appendix E)
- Zentner Planning & Ecology, Memo RE: Cache Creek Reclamation Phase 4 Restoration, August 25, 2020
- Zentner Planning & Ecology, Biological Resources Update, CEMEX Cache Creek Mine, February 22, 2018 (Appendix H)
- Zentner Planning & Ecology, Biological Resources Survey and Assessment, CEMEX Cache Creek Mine Phase 5 Area, July 12, 2022 (Appendix L)

Field reconnaissance surveys of the project site were conducted by the EIR biologist on June 13 and July 18, 2018, to confirm conditions described in the 2018 Biological Resources Update. The above data were reviewed, together with information on special-status species and sensitive natural communities available from the California Natural Diversity Data Base (CNDDDB) of the California Department of Fish and Wildlife (CDFW), wetlands mapped as part of the National Wetland Inventory by the U.S. Fish and Wildlife Service (USFWS), the CNPS Online Inventory of

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County. 1996. Solano Long-Term Off-Channel Mining Permit Application Final Environmental Impact Report. November.

⁵ Zentner Planning & Ecology, 2022. Habitat Restoration Plan, CEMEX Cache Creek Mine. October 2022 (revised Figure 4, 11/18/2022).

Rare and Endangered Plants of California, and Appendix A: Covered Species Accounts of the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).⁶

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of the proposed project. No written comments concerning biological resources were received by the County (NOP comment letters are included in Appendix B of this Draft SEIR). The following comments related to biological resources were expressed at the NOP public scoping meeting held on March 11, 2021, responses are provided in *italics*.

- Provide more information regarding reclamation to habitat and its overall schedule and success.

The proposed reclamation schedule is described in Chapter 3.0, the Project Description. Reclamation policies and regulations are summarized in subsection 4.3-3 below.

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

4.3-2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes updated information that has become available since those reports were completed.

Description of Regional Environment

With regard to biological resources, the regional environment has not changed substantially since the 1996 EIR. As noted in that document, grazing, agricultural production, and mining activities have substantially altered the vegetative cover on the project site and surrounding area along the lower Cache Creek corridor. The introduction of livestock grazing in the mid-1800s, followed by removal of oak woodlands, and eventual irrigation and year-round farming in the 1900s have resulted in the elimination of most of the native plant communities. In-channel aggregate mining and agricultural activities over the past century or more have resulted in substantial modification to the historic riparian cover along Cache Creek. Most of the original native riparian forest, oak woodland, and perennial native grassland communities have been replaced by agricultural crops, with remnants of the native communities generally limited to small segments along the creek and scattered mature oaks on the upper terraces. The CCAP Update EIR provides an updated discussion of the changes and trends in vegetation and wildlife habitat, sensitive natural communities and special-status species and other biological resources along the lower Cache Creek corridor planning area.

⁶ Yolo Habitat Conservation Plan/Natural Community Conservation Plan, Volume 1, Final. April 2018.

Description of Local Environment

As described in the 2018 Biological Resources Update report, the CEMEX site consists primarily of mining and agricultural land that is in various stages of mining, reclamation, and farming. Agricultural production on and around the site are mainly row crops. Riparian vegetation forms a relatively narrow band on the southern bank of Cache Creek (north side of the project site), which drops about 35 feet below the agricultural plain where mining is taking place. Remnant sections of riparian habitat remain in depressions within the required 200-foot buffer between the Creek and the mining pits. Annual grassland dominated by ruderal (weedy) species is found around the perimeter of the agricultural and actively mined areas as well as in much of the remnant buffer area.

The 1996 EIR provided a detailed description of the following resources:

- Vegetative cover and wildlife habitat consisting of agricultural crop and fallow fields, grassland, woodland, riparian corridor, and ornamental landscaping (1996 EIR, Draft volume, pages 4.6-4 through 4.6-8);
- Wetlands and Regulated Waters consisting of the Cache Creek corridor and a drainage through the southeastern portion of the site (1996 EIR, Draft volume, pages 4.6-8 through 4.6-10);
- Special-Status Species (1996 EIR, Draft volume, pages 4.6-10 through 4.6-15) – see updated information below; and
- Rare or Unique Environmental Resources and Sensitive Natural Communities (1996 EIR, Draft volume, page 4.6-15) – see updated information below.

Special-Status Species Update

Special-status species are plants and animals which are legally protected by the State and/or federal Endangered Species Acts⁷ or other regulations and other species which the scientific community and trustee agencies have identified as rare enough to warrant special consideration, particularly the protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species protected by the Endangered Species Acts often represent major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"⁸ of these species.

⁷ The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall use their authority to conserve endangered and threatened plant and animal taxa. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

⁸ The FESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. The USFWS further defines "harm" as including the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFW also considers the loss of listed species habitat as "take," although this policy lacks statutory authority and case law support under the CESA.

Two sections of FESA contain provisions which allow or permit "incidental take". Section 10(a) provides a method by which a state or private action which may result in "take" may be permitted. An applicant must provide the USFWS with an acceptable conservation plan and publish notification for a permit in the Federal Register. Section 7 pertains to a federal agency which proposes to conduct an action that may result in "take," requiring consultation with USFWS and possible issuance of a jeopardy decision. Under the CESA, "take" can be permitted under Section 2081 of the Fish and Game Code. An applicant must enter into a habitat management agreement with the CDFW which defines the permitted activities and provides adequate mitigation.

Special-status species include:

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

The 1996 EIR provided a discussion of the potential for special-status species and sensitive natural communities in the project vicinity, conclusion regarding presence or absence on the site, and recommendations for addressing potential adverse impacts. This was based on background studies conducted by the applicant's consulting biologists and other information sources, such as the records on occurrences of special-status species and sensitive natural communities maintained by the CNDDDB. Because of the length of time that has passed since preparation of the 1996 EIR, the current records of the CNDDDB were reviewed to determine whether any new occurrences of special-status species have been reported from the site or immediate vicinity. Figure 4.3-1 shows the occurrences of special-status plants and Figure 4.3-2 shows the occurrences of special-status animals within about five miles of the site.

As concluded in the 1996 EIR, no special-status plant species have been reported from or are suspected to occur on the site due to the extent of past and on-going disturbance from agricultural, mining, and bank stability modifications. These conditions haven't changed and there is no expectation that special-status plant species have become established on the site (2018 Biological Resources Update).

The 1996 EIR focused on the potential for presence of eight special-status animal species on the project site, as well as the several other bird species known to forage and possibly nest in the project vicinity. The eight focal species included: the federally-endangered valley elderberry longhorn beetle (*Desmocerus californicus* ssp. *dimorphus*) or VELB, the State-threatened bank swallow (*Riparia riparia*), the State-threatened Swainson's hawk (*Buteo swainsoni*), the State-threatened tricolored blackbird (*Agelaius tricolor*), three bird species recognized as California SSC by CDFW at the time – burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), and northern harrier (*Circus cyaneus*) – and the State fully protected white-tailed kite (*Elanus caeruleus*). The status and varying potential for presence for each of these species on the site remains unchanged from that described in the 1996 EIR.

As indicated in Figure 4.3-2, no new occurrences for any of these eight species discussed in detail in the 1996 EIR have been reported on the project site. The only mapped occurrence on the site is from records of a bank swallow colony reported in 1987 from the gravel pit excavations on the Hutson parcel. This colony, associated with the gravel stockpile, no longer exists.

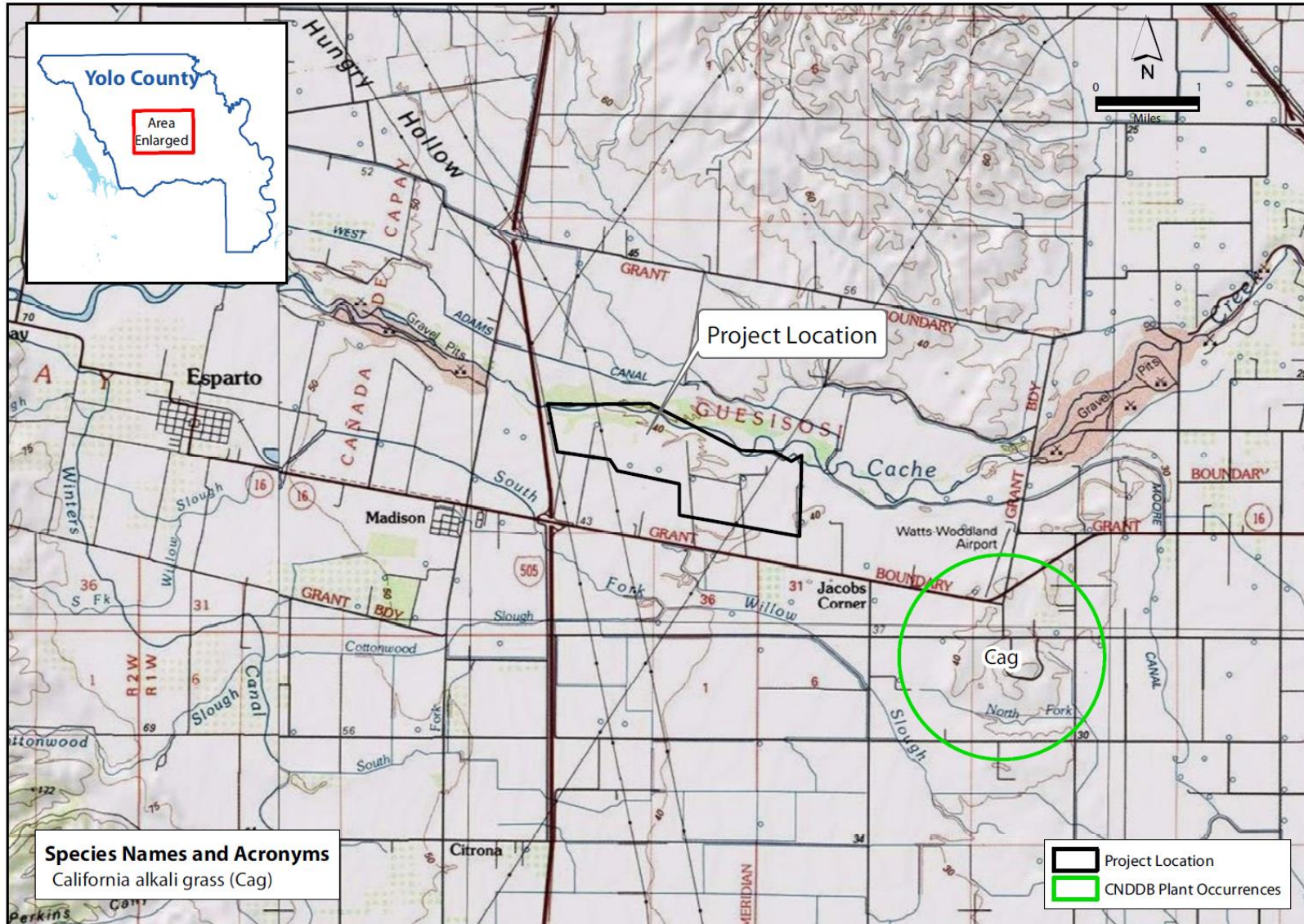
Numerous occurrences of Swainson's hawk have been reported in the surrounding area, and although no nests have been detected during annual monitoring by the applicant's consulting biologist, this species is known to forage in suitable habitat on the site. Elderberry host plants for VELB occur in the riparian habitat along the Cache Creek corridor as well as scattered locations across the site. Given that the site is located within the known range of VELB, all elderberry shrubs with trunk diameters of one inch or greater are considered potential habitat for this species by the USFWS according to the 2017 *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle*.⁹ Further discussion of these three species is provided below under Impact 4.3-1, Special-Status Species.

Suitable nesting habitat for the remaining four special-status bird species that were a focus in the 1996 EIR remains low, although suitable foraging habitat is present on the site. Pre-construction bird nesting surveys recommended as mitigation in the 1996 would address the potential for presence of nesting raptors (birds of prey). Impact 4.3-1 addresses this and avoidance of more common bird species that are also protected under the Migratory Bird Treaty Act and State Fish and Game Code when nests are in active use.

The 1996 EIR addresses the potential for foraging by pale big-eared bat (*Plecotus townsendii pallescens*), Townsend's western big-eared bat (*Plecotus townsendii townsendii*), and pallid bat (*Antrazous palida*) on the site and concludes essential roosting habitat is absent. The 1996 EIR does not address the potential presence of western red bat (*Lasiurus blossevillii*) on the site. Limited potential habitat for western red bat occurs within the areas of riparian woodland along Cache Creek, and possibly in scattered trees within the proposed mining area on the site. The 2018 Biological Resources Update report indicates the potential limited presence of this species. As indicated in Figure 4.3-2, a general occurrence of western red bat was reported in 1954 from a fig orchard in the Esparto area, about three miles west of the site. Western red bat is considered an SSC by CDFW and has a High Priority ranking by the Western Bat Working Group because of declines in population numbers and distribution. This species roosts in trees and shrubs adjacent to streams and open fields, particularly mature stands of cottonwoods and sycamores in riparian habitats, and has been observed roosting in agricultural trees in the Central Valley. Additional discussion of the potential impacts of the project on western red bat is provided below under Impact 4.3-1.

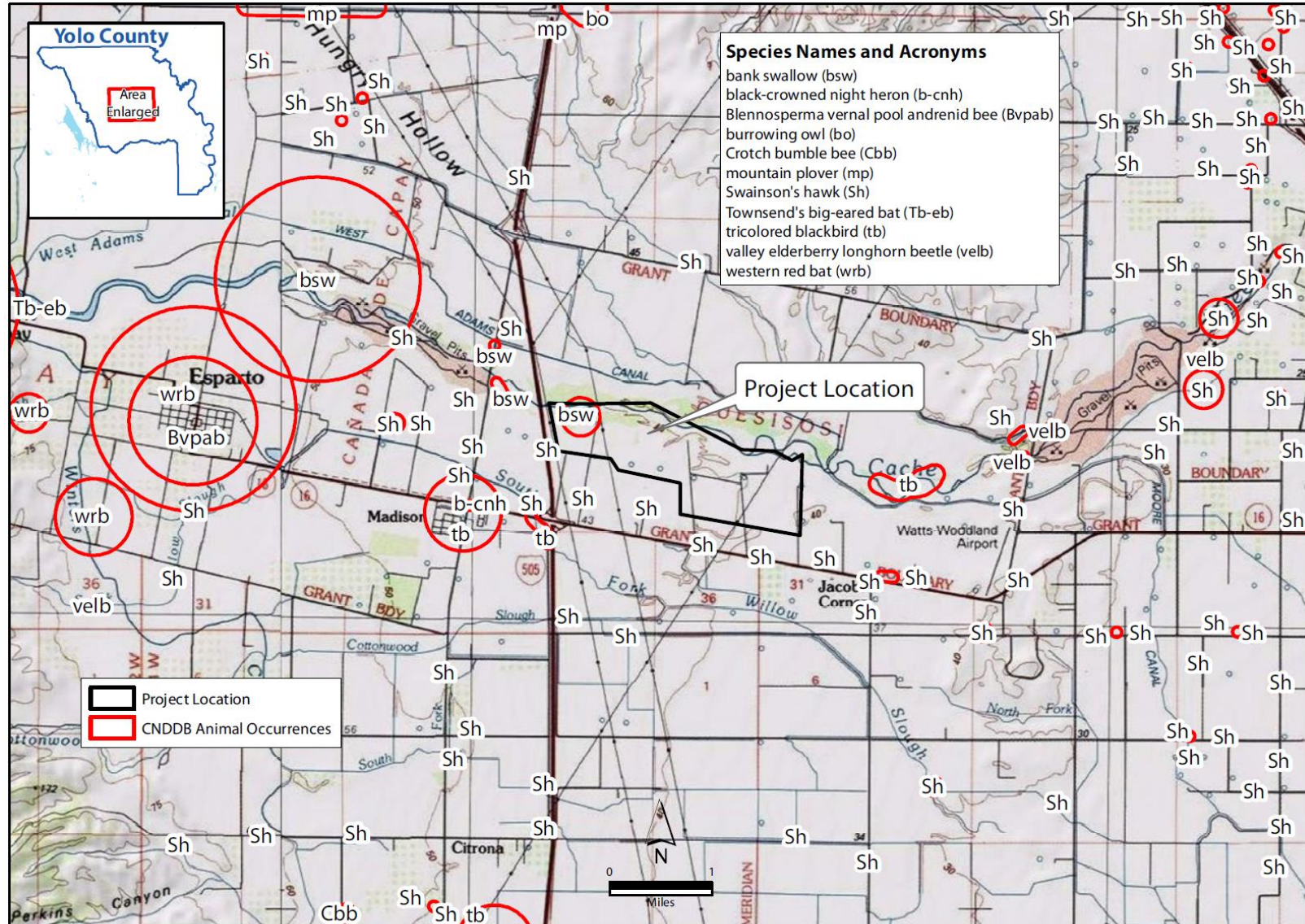
⁹ U.S. Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and Wildlife Service; Sacramento, California.

**Figure 4.3-1
Special Status Plants**



SOURCES: California Natural Diversity Database accessed on August 9, 2022; Service Layer Credits: Copyright:© 2013 National Geographic Society, I-cubed. Map produced by www.digitalmappingsolutions.com on 8/9/2022.

**Figure 4.3-2
 Special Status Animals**



SOURCES: California Natural Diversity Database accessed on August 9, 2022; Service Layer Credits: Copyright: © 2013 National Geographic Society, I-cubed. Map produced by www.digitalmappingsolutions.com on 8/9/2022.

Sensitive Natural Communities Update

Sensitive natural communities are natural community types considered to be rare or of a “high inventory priority” by the CDFW. Although sensitive natural communities have no legal protective status under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), they are provided some level of consideration under CEQA. The CNDDDB provides an inventory of sensitive natural communities considered to have a “high inventory priority” in the State by the CDFW. CDFW ranks natural communities (also referred to by CDFW as “alliances”) based on rarity rank, using a system derived from NatureServe’s standard heritage program, as indicated in the *California Natural Community List*.¹⁰

As discussed in the 1996 EIR in the subsection on Rare or Unique Environmental Resources (1996 EIR, Draft volume, page 4.6-15), areas of riparian forest, scrub, and emergent wetlands along the Cache Creek corridor are considered to have a high inventory priority in the CNDDDB and qualify as sensitive natural community types. These sensitive natural community types are also regulated as State waters because of their association with the riparian habitat of Cache Creek. Intact stands of valley oak woodlands also qualify as a sensitive natural community type, depending on their size, dominance by native valley oak, condition of understory, and other variables. However, the remaining valley oaks outside of the Cache Creek corridor on the project site are isolated trees along the margins of agricultural fields and don’t qualify as a natural community type. These scattered valley oaks and other native trees are nevertheless important wildlife habitat features providing foraging opportunities and perching, roosting, and nesting opportunities for numerous species of birds, including raptors.

4.3-3 REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of biological resource impacts of the proposed project.

Federal Regulations

The CCAP Update FEIR provided descriptions of the Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), and Clean Water Act (CWA). There have been no substantive changes in these regulations as applicable to the proposed project since certification of the CCAP Update FEIR.

State Regulations

The CCAP Update FEIR provided descriptions of the California Endangered Species Act (CESA), the Streambed Alteration Agreement Process, the Natural Community Conservation Planning (NCCP) Act, California Special Concern Species, protection of raptors and birds, and the California Native Plant inventory. The 1996 EIR and CCAP Update FEIR included summaries of the Surface Mining and Reclamation Act (SMARA). There have been no substantive changes to these regulations as applicable to the proposed project since certification of the CCAP Update FEIR.

¹⁰ California Department of Fish and Wildlife, Biogeographic Data Branch, Vegetation Classification and Mapping Program, 2022. *California Natural Community List*. July 5.

Local Regulations

Since certification of the 1996 EIR, the County adopted the Yolo County Oak Woodland Conservation and Enhancement Plan in 2007, updated the Countywide General Plan in 2009, adopted the Yolo Habitat Conservation Plan/Natural Community Conservation Plan in 2019, and approved the CCAP Update in 2019. The CCAP Update FEIR provided descriptions of these and other relevant local plans and regulations. Further discussion is provided below.

2030 Countywide General Plan

The 2030 Countywide General Plan was updated in 2009 and contains the following goals, policies, and actions related to biological resources that are relevant to the proposed project:

- Goal CO-2: Biological Resources. Protect and enhance biological resources through the conservation, maintenance, and restoration of key habitat areas and corresponding connections that represent the diverse geography, topography, biological communities, and ecological integrity of the landscape.
- Policy CO-2.1: Consider and maintain the ecological function of landscapes, connecting features, watersheds, and wildlife movement corridors.
- Policy CO-2.3: Preserve and enhance those biological communities that contribute to the county's rich biodiversity including blue oak and mixed oak woodlands, native grassland prairies, wetlands, riparian areas, aquatic habitat, agricultural lands, heritage valley oak trees, remnant valley oak groves, and roadside tree rows.
- Policy CO-2.4: Coordinate with other regional efforts (e.g., Yolo County HCP/NCCP) to sustain or recover special-status species populations by preserving and enhancing habitats for special-status species.
- Policy CO-2.9: Protect riparian areas to maintain and balance wildlife values.
- Policy CO-2.10: Encourage the restoration of native habitat.
- Policy CO-2.14: Ensure no net loss of oak woodlands, alkali sinks, rare soils, vernal pools or geological substrates that support rare endemic species, with the following exception. The limited loss of blue oak woodland and grasslands may be acceptable, where the fragmentation of large forests exceeding 10 acres is avoided, and where losses are mitigated.
- Policy CO-2.17: Emphasize and encourage the use of wildlife-friendly farming practices within the County's Agricultural Districts and with private landowners, including:
- Establishing native shrub hedgerows and/or tree rows along field borders.

- Protecting remnant valley oak trees.
- Planting tree rows along roadsides, field borders, and rural driveways.
- Creating and/or maintaining berms.
- Winter flooding of fields.
- Restoring field margins (filter strips), ponds, and woodlands in non-farmed areas.
- Using native species and grassland restoration in marginal areas.
- Managing and maintaining irrigation and drainage canals to provide habitat, support native species, and serve as wildlife movement corridors.
- Managing winter stubble to provide foraging habitat.
- Discouraging the conversion of open ditches to underground pipes, which could adversely affect giant garter snakes and other wildlife that rely on open waters.
- Widening watercourses, including the use of setback levees

Policy CO-2.30: Protect and enhance streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat and vernal pools in land planning and community design.

Policy CO-2.34: Recognize, protect and enhance the habitat value and role of wildlife migration corridors for the Sacramento River, Putah Creek, Willow Slough, the Blue Ridge, the Capay Hills, the Dunnigan Hills and Cache Creek.

Policy CO-2.36: Habitat preserved as a part of any mitigation requirements shall be preserved in perpetuity through deed restrictions, conservation easement restrictions, or other method to ensure that the habitat remains protected. All habitat mitigation must have a secure, ongoing funding source for operation and maintenance.

Policy CO-2.38: Avoid adverse impacts to wildlife movement corridors and nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds). Preserve the functional value of movement corridors to ensure that essential habitat areas do not become isolated from one another due to the placement of either temporary or permanent barriers within the corridors. Encourage avoidance of nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds) during periods when the sites are actively used and that nursery sites which are used repeatedly over time are preserved to the greatest feasible extent or fully mitigated if they cannot be avoided.

Policy CO-2.41: Require that impacts to species listed under the State or federal Endangered Species Acts, or species identified as special-status by the resource agencies, be avoided to the greatest feasible extent. If avoidance

is not possible, fully mitigate impacts consistent with applicable local, State, and Federal requirements.

Policy CO-2.42: Projects that would impact Swainson's hawk foraging habitat shall participate in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo County entered into by the CDFG and the Yolo County HIP/NCCP Joint Powers Agency or satisfy other subsequent adopted mitigation requirements consistent with applicable local, State, and federal requirements.

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-5.8: Support efforts to reduce the accumulation of methyl mercury in fish tissue in Cache Creek and the Delta, as well as the consumption of fish with high levels of methyl mercury.

Off-Channel Mining Plan

The following goal and actions from the Biological Resources Element of the Yolo County Off-Channel Mining Plan (OCMP), revised and updated in 2019, are applicable to the proposed project:

Goal 6.2-1: Provide for a diverse, native ecosystem within the OCMP area that is self-sustaining and capable of supporting native wildlife and invertebrate species.

Action 6.4-2: Provide for the development of shallow areas along reclaimed off-channel excavations that extend below the groundwater level, to create wetland and riparian habitat. (See Section 10-5.529 of the Reclamation Ordinance.)

Action 6.4-3: Mitigate for short-term and long-term loss of agricultural land and habitat pursuant to applicable County requirements and CEQA. Comply with the Yolo HCP/NCCP for species covered by that Plan. For non-covered species for which impacts may occur, ensure compliance with appropriate measures in site specific biological assessments required under the OCMP and CCRMP, in compliance with the State Fish and Wildlife Code, Migratory Bird Treaty Act, and other applicable regulations, plans and programs, as appropriate.

Action 6.4-5: Include provisions to enhance habitat for special-status species in restoration components of reclamation plans, where feasible. (See Section 10-5.523 of the Reclamation Ordinance.)

- Action 6.4-7: Restore riparian habitat throughout the planning area, wherever appropriate. However, re-vegetative efforts should be primarily focused on implementing recommendations described in the Technical Studies and the subsequent Restoration Recommendations incorporated into the CCRMP. Integrate off-channel and in-channel revegetation plans with the goal of reducing fragmentation by expanding and connecting existing habitat patches, optimizing restoration planning in alignment with the Parkway Plan, and supporting future funding proposals. Ensure that elements such as soils, drainage, slopes, and habitat types complement one another in a coordinated effort.
- Action 6.4-8: Include native-planted hedgerows and other vegetated buffers between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.

Cache Creek Resources Management Plan

The following goal and actions from the Biological Resources Element of the Yolo County Cache Creek Resources Management Plan (CCRMP), revised and updated in 2019, are applicable to the proposed project:

- Goal 4.2-1: Provide for a diverse, native riparian ecosystem within the CCRMP area that is self-sustaining and capable of supporting native wildlife.
- Objective 4.3-2: Establish conditions to encourage the development of a variety of natural riparian habitat types within the CCRMP area in order to support biological resources associated with Cache Creek.
- Action 4.4-5: Establish a series of wildlife reserves (see Figure 9) to provide core areas for maximizing wildlife and fish habitat, to help protect areas of high-quality habitat from future degradation, and to provide source areas and wildlife nurseries from which native plants and wildlife can colonize other reaches of the creek. Wildlife reserves should emphasize the preservation of high-quality existing habitat, areas with high species diversity, areas supporting unique species or biotic communities, and habitat for rare, threatened, and endangered species.
- Action 4.4-6: Favor projects that establish native woody vegetation over emergent wetlands in appropriate areas within the planning area. Riparian forest and scrub habitats have largely disappeared regionally and are much more difficult to reestablish than are emergent wetland habitats. Emergent wetlands can also be established in a greater range of environmental conditions, whereas riparian woodlands require specific considerations in order to thrive.

- Action 4.4-10: Through development agreements with mining operations, require integration of in-channel revegetation plans in order to reduce fragmentation by expanding and connecting existing habitat patches, optimize restoration planning, and support future funding proposals. Ensure that elements such as soils, drainage, slopes, and habitat types complement one another in a coordinated effort. Coordinate in-channel habitat areas with proposed wildlife mitigation and "net gain" established as a part of the off-channel mining operations in order to create a larger riparian habitat area. Require consistency with the Parkway Plan.
- Action 4.4-11: Work with the aggregate industry to achieve multiple benefits, whereby habitat developed as a part of a reclamation plan may be dedicated for preservation to offset development projects elsewhere. Coordinate this effort with implementation of the Parkway Plan and the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).
- Action 4.4-12: Recommended planting procedures and materials, soil amendments and stabilizers, and appropriate species and planting densities for marshland, oak woodland, and riparian woodland restoration efforts should be performance based. Variations from these guidelines shall be acceptable if alternative restoration plans have been prepared by a qualified biologist and reviewed by the TAC, consistent with the policies of the CCRMP.
- Action 4.4-13: Avoid disturbance to important wildlife habitat features such as nest trees, colonial breeding locations, elderberry shrubs, and essential cover associated with riparian forest and oak woodland habitat. This should include sensitive siting of maintenance access and recreational facilities away from these features in accordance with the Migratory Bird Treaty Act and other applicable regulations.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to biological resources:

Section 10-4.418. Habitat Conservation Plan Compliance.

All surface mining operations shall be consistent with applicable components of the Yolo Habitat Conservation Plan/ Natural Community Conservation Plan (HCP/NCCP).

Section 10-4.429. Setbacks. [excerpt]

All off-channel surface mining operations shall comply with the following setbacks:

- (f) Off-channel excavations shall be set back a minimum of twenty-five (25) feet from riparian vegetation; and...

Section 10-4.436. Vegetation Protection.

Existing vegetation and habitat to be retained shall be enclosed by temporary fencing to restrict access, protect against damage and/or provide buffers to reduce the impact of dust. Temporary fencing shall be a minimum of four (4) feet high. The disturbance of riparian forest or oak woodland vegetation, including identified off-channel vegetation, should be avoided if possible. Replacement habitat and plantings shall be established where complete avoidance is not possible, according to a habitat restoration plan prepared by a qualified biologist, consistent with the goals of this plan.

Section 10-4.440. Wildlife Habitat.

Avoid disturbance to important wildlife habitat features such as bird nesting trees, colonial breeding locations, elderberry host plants for Valley Elderberry Longhorn Beetle, and mature riparian forest and oak woodland habitat. This shall include sensitive siting of haul roads, trails, and recreational facilities away from these features. Suitable habitat for special-status species shall be protected and enhanced or replaced as a part of mitigation plans prepared by a qualified biologist where necessary, and through compliance with the Yolo HCP/NCCP for special-status species covered by that Plan. Mining and reclamation activities shall be performed in accordance with the State Fish and Wildlife Code, Migratory Bird Treaty Act, and other applicable regulations to protect bird nests when in active use.

Native-planted hedgerows and/or other vegetated buffers shall be included between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.

Section 10-4.502. Applications: Contents. [excerpt]

- (b) Site-specific technical reports, performed by qualified professionals in the appropriate area of expertise, shall provide specific proposals for inclusion in the surface mining permit to address the following potential environmental impacts:
 - (1) A biological inventory and analysis to evaluate the on-site habitat value of the proposed mined area, as well as the potential impacts to special-status species and sensitive natural communities, both on-site and within the immediate area. The analysis shall propose appropriate measures to reduce any potential adverse impacts to special-status species or significant suitable habitat and shall ensure compliance with the Yolo HCP/NCCP, California Fish and

Game Code, Migratory Bird Treaty Act, and other applicable regulations, plans and programs. The analysis shall also include a wetland delineation study for any potential on-site wetlands and shall provide adequate mitigation and appropriate authorizations from regulatory agencies, where required. If landscaping is proposed to screen the surface mining operations from adjoining public rights-of-way or public and private lands, the biological analysis shall include an evaluation of the feasibility of the species, weed control, and irrigation methods to be used;

Surface Mining Reclamation Ordinance

Title 10, Chapter 5 of the Yolo County Code contains the Surface Mining Reclamation Ordinance (Reclamation Ordinance), which provides the following requirements relevant to biological resources related to reclamation of mining sites:

Section 10-5.509. Fence Row Habitat.

Where fence row or field margin habitat previously existed, reestablish similar habitat as part of reclamation to agricultural use to replace and improve the wildlife habitat value of agricultural lands, allowing for the reestablishment of scattered native trees, shrubs, and ground covers along the margins of reclaimed fields. Reestablished habitat can be located in areas other than where it occurred originally. Restoration plans shall specify ultimate fence row or field margin locations, identify planting densities for trees and shrubs, and include provisions for monitoring and maintenance to ensure establishment. Restoration plans should be reviewed and approved by the TAC.

Section 10-5.514. Habitat Conservation Plan Compliance.

All reclamation plans shall be consistent with applicable components of the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Section 10-5.515. Habitat Plan Referral.

Proposed habitat restoration or mitigation plans for lands within the OCMP area shall be sent to the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and other interested parties for review and comment through the CEQA process as applicable, to ensure that the projects do not conflict with other existing habitat enhancement efforts.

Section 10-5.523. Planting Plans.

Site-specific planting plans shall be developed by a qualified biologist for proposed habitat reclamation projects. Restoration components of reclamation plans shall include provisions to enhance habitat for special-status species, where feasible.

Native-planted hedgerows and other vegetated buffers shall be included between

restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.

Section 10-5.533. Wetland Habitat.

Off-channel excavations that are proposed to be reclaimed to permanent lakes shall include riparian and/or wetland habitat. The creation of riparian and or wetland habitat along the perimeter of permanent lakes shall include appropriate features such as: scalloped basin perimeters with extended peninsulas, islands, and stepped benches of various widths at approximately three (3) foot vertical intervals both above and below the groundwater level. Where wetlands are not proposed, either grassland and/or woodland habitat, or agricultural fields separated from the lake by a berm, shall be established using only native species in order to provide continuous habitat value around the permanent lakes.

Yolo County Oak Woodland Conservation and Enhancement Plan

The Yolo County Oak Woodland Conservation and Enhancement Plan was prepared in 2007 by the Yolo County Parks and Natural Resource Division. The Plan is designed to promote the conservation and enhancement of the County oak woodlands through voluntary efforts of private land owners and public agencies, focusing on oak woodlands that cover one acre or more. The Plan includes oak woodland conservation policy recommendations and a checklist to help determine the resource value of existing oak woodlands.

Yolo Habitat Conservation Plan/Natural Community Conservation Plan

The Yolo HCP/NCCP is a 50-year countywide conservation plan that became effective in January of 2019. The HCP/NCCP protects endangered species and natural resources while allowing for orderly development in Yolo County consistent with local General Plans. The Yolo HCP/NCCP provides coverage for 12 special-status animal and plant species, as well as riparian and other wetland sensitive natural community types.

The process for participating in the Yolo HCP/NCCP includes a pre-application phase to confirm that the project is a covered activity, followed by a preliminary evaluation, and then a formal application. The formal application and coverage under the Yolo HCP/NCCP involves planning level surveys, payment of applicable fees based on quantified temporary or permanent impacts to land cover types for a particular site, and requires compliance with applicable pre-construction surveys and construction-related avoidance and impact minimization measures. An applicant can provide conservation land in lieu of paying a portion of the land cover fee or purchase mitigation credits from an approved mitigation bank in lieu of paying a portion of the fee.

4.3-4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the changes in the proposed project's potential impacts related to biological

resources. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. A biological resources impact is considered significant if the proposed project would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.
- c) Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e) Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan;
- f) The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- h) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is information (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a significant effect on biological resources if it would:

- Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources.

Impacts associated with fragmenting, eliminating or disrupting animal habitat are addressed by criteria "a", "d" and "f" above.

- Substantially limit or fragment range and movement (geographic distribution of animals and/or seed dispersal routes).

Impacts associated with limiting or fragmenting the range or movement of animals or seed dispersal are addressed by criteria “a”, “d” and “f” above.

- Disrupt critical time periods (nesting, breeding) for fish and other wildlife species.

Impacts associated with disrupting nesting or breeding activities or habitat are addressed by criteria “d” and “f” above.

- Reduce the numbers of any rare, threatened, or endangered species or their habitats (including, but not limited to, the removal of any healthy oak tree or tree containing Swainson's hawk nests).

Impacts associated with reducing the numbers of any rare, threatened, or endangered species or their habitats are addressed by criteria “a” and “f” above.

- Substantially impact locally designated species or locally designated natural communities.

Impacts associated with a substantial impact on locally designated species or natural communities are addressed by criteria “b”, “f”, and “g” above.

- Remove wetland habitat (e.g., marsh, riparian, and vernal pool).

Impacts associated with an adverse effect on wetland habitat are addressed by criterion “c” above.

Impacts Identified in the 1996 EIR

The impacts identified in the certified 1996 EIR are summarized in Table 4.3-1. The table provides a discussion of the status of each mitigation measure.

Table 4.3-1: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures and Discussion
4.6-1	Project implementation would result in approximately 598 acres of primarily agricultural cover, revegetation of disturbed areas, and enhancement of native habitat. This is considered to be a less-than-significant impact on general vegetation resources.	No mitigation measures were required. The 1996 EIR refers to a 598-acre mining area. The executed Development Agreement refers to a 586-acre mining area. Neither of these acreages includes the 100-acre Hutson parcel (for which mining was concluded but reclamation would occur) or the 30-acre plant site (which was amended into the plans in 2003). As explained in Chapter 3.0, Project Description, this Draft SEIR relies on acreages as described in the executed Development Agreement. As approved the mining area is 586 acres and the reclamation area is 716 acres. As proposed the mining area is

		<p>substantively unchanged and the reclamation area is expanded to 816 acres which includes disturbed areas along the northern boundary of the project site.</p>
<p>4.6-2</p>	<p>Grading in the proposed mining area would result in the loss of mature oaks and could result in inadvertent disturbance to remnant sensitive natural communities along the Cache Creek corridor. This is considered to be a significant impact.</p>	<p>Mitigation Measure 4.6-2a/Condition of Approval No. 51^a requires:</p> <p>“Figure 8 of the HRP shall be revised to indicate the location of hedgerow plantings, around the Hutson parcel in Phase 1 or as specified as part of habitat enhancement in a Section 2081 permit if required by the CDFG, or to mitigate as a 1:1 ratio the actual loss of fence row habitat (Mitigation Measure 4.6-2a).”</p> <p>An addendum to the 1995 HRP was submitted to staff on April 24, 1997. The addendum HRP indicates the location of 2.7 acres hedgerow plantings around the north and west border of the Hutson Parcel, which was required to mitigate for the loss of hedgerow plantings in Phase 1 on the Farnham West Parcel.</p> <p>In information provided as a component of the 2022 Minor Modification (ZF #2022-0037), the applicant indicated that between 1997-2002, CEMEX’s predecessors implemented ±2.7 acres of hedgerow habitats north of Phase 1. Over time, the natural recruitment of vegetation has increased the vegetative cover in this area to ±3.0 acres (see Figure 4.3-3).</p> <p>Because CEMEX has not actively maintained this area, the 2022 Minor Modification included two new relevant conditions of approval:</p> <p>4. Implement hedgerow planting to provide required vegetative cover within a continuous uninterrupted band along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2. The width of the new hedgerow planting shall match the width of the existing hedgerow plantings on the north. If the PG&E powerline easement prohibits the planting of species identified for the rest of the hedgerow, alternative native species may be proposed for the powerline easement right-of-way area. The design shall be approved by the County with input from the Cache Creek Area Plan Technical Advisory Committee’s Riparian Biologist. The applicant shall submit design plans (including proposed native species and irrigation) for County review and approval no later than September 30, 2022. All approved improvements shall be</p>

		<p>implemented within 90 days of County approval.</p> <p>5. Throughout the life of the mining and reclamation approvals, the applicant shall annually monitor and actively maintain the hedgerows.</p> <p>Draft hedgerow design plans were submitted January 27, 2023 and have been reviewed by the County in the context of the subject Major Modification application.</p> <p>In October of 2023 Cemex informed the County, based on information provided by their biologists Zentner Planning & Ecology, that the ±3.0-acre area of hedgerows was mistakenly characterized and should instead be considered “riparian” restoration. In examining applicant compliance with prior approvals, the Minor Modification analysis relied on the applicant’s previous characterization of this area as hedgerows. However, the County has subsequently determined that because no acreage credit was given for the 3.0 acres as part of the Minor Modification consideration, the error does not materially change the Minor Modification approval or conditions. Implementation of Minor Modification Condition of Approval #4 identified above will result in the creation of a larger area of hedgerows, including restoration of the subject 3.0 acres within the larger hedgerow area, thus rectifying the error. Minor Modification Condition #4 is modified and carried forward in Mitigation Measure 4.3-6a. Other required modifications to the applicant’s proposed hedgerow plans are also identified in Mitigation Measure 4.3-6a.</p> <p>Mitigation Measure 4.6-2b/Condition of Approval No. 52^a requires:</p> <p>“Mature oak trees at the fringe of mining areas shall be preserved. These shall include: the two oaks at the southwestern corner of the mining area on the Solano West parcel in Phase 7; the two oaks at the southeastern corner of the mining area along the boundary between the Farnham West and Hutson parcels on Phase 1; and the single oak at the southeastern edge of the mining area on the Snyder East parcel in Phase 4. Stockpiling of topsoil and overburden in the vicinity of these five trees shall be restricted to beyond the tree driplines. As required by Section 10-4.436 of the County Off-Channel Mining Ordinance,</p>
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		<p>temporary fencing shall be provided around the dripline of these trees to prevent possible construction-related damage. Fencing shall remain in place until stockpiles are removed, and the surrounding lands are returned to agricultural production (Mitigation Measure 4.6-2b).”</p> <p>The two oaks at the southwest corner of Phase 7 remain and fall outside of the project area with the elimination of Phase 7. The two oaks at the southeast corner of the project area between Farnham West and Hutson in Phase 1 have been removed. The single oak at the southeast edge of Snyder East parcel (originally Phase 4) has been removed. Temporary fencing has been installed around the dripline of trees adjacent to Phase 4 to prevent possible construction-related damage.</p> <p>The applicant has indicated (correspondence to CEMEX from Zentner Planning and Ecology, August 22, 2018) that extreme heat and drought events over the last 25 years, particularly in last ten years, resulted in the death of a number of trees and shrubs. The bulk of the tree loss was on the margins of Cache Creek near the toe of the creek bank where vegetation became conditioned to a relatively high-water table. The drought lowered that water table significantly, leading to vegetation die-off along the margins of the creek channel and the toe of the creek banks. The other habitat areas impacted by the drought were the riparian depressions along the creek buffer. These depressions had been buffered from moderate drought because water ponded within nearby depressions. However, in the longer and more extreme droughts experienced over the last few years, these areas remained much drier throughout the winter and spring leading to tree loss.</p> <p>The proposed HRP will result in significant native tree planting throughout 174 acres of proposed reclaimed habitat.</p> <p>Mitigation Measure 4.6-2c/Condition of Approval No. 53^a requires:</p> <p>“As required by Section 10-4.436 of the County Off-Channel Mining Ordinance, temporary fencing shall be installed at the boundary of the habitat restoration area along the Cache Creek corridor, prior to initiation of any mining activity for each phase of the project. The fencing shall remain in place throughout the duration of</p>
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		<p>active mining until reclamation has been completed for each project phase (Mitigation Measure 4.6-2c).”</p> <p>The 5.7-acre restored habitat area is shown on Figure 4.3-3. Protective fencing is in place and actively maintained by the applicant. Fencing and other resource protection controls will continue to be used over the course of mining in accordance with the required mitigation.</p> <p>The 2022 Minor Modification included two new conditions of approval relevant to this restored habitat area:</p> <p>6. Throughout the life of the mining and reclamation approvals, the applicant shall annually monitor and actively maintain the 5.7 acres of restored habitat.</p> <p>7. The applicant was required under the 2081 MOU to dedicate the Restored Habitat property to the County in fee title no later than 1998. To address this outstanding commitment, the applicant shall make an irrevocable offer of dedication (IOD) to the County no later than September 30, 2022 (with a deadline for acceptance by the County no earlier than August 11, 2027, which is coincident with the expiration of the approved permits) to dedicate to the County, in fee title, the fenced restored habitat area totaling 5.7 acres, including ongoing maintenance to the County’s satisfaction until the dedication is executed. If the current approved permits are extended, as requested in the pending Major Modification application, the deadline for acceptance of the IOD shall be extended to align with the new permit expiration or other equivalent assurances of future dedication (e.g., amendment of this commitment into the revised Development Agreement) on a timetable acceptable to the County shall be made. The parties agree the deadline for acceptance of the IOD, and discussion of connecting this property to subsequent trail easement dedications and/or substituting this property for other equivalent land that is connected to future land dedications, shall be discussed in concert with Development Agreement negotiations pertinent to the pending Major Modification.</p> <p>The IOD has not been completed as of March 1, 2024.</p>
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		<p>Mitigation Measure 4.6-2d/Condition of Approval No. 54^a requires:</p> <p>“Levee and channel stabilization improvements shall be designed to avoid impacts to riparian habitat on the site. Levee improvements on the Snyder East and West parcels in Phases 3, 5, and 6 shall be set back from the edge of the upper terrace to eliminate fill slopes which would extend into the riparian habitat. The project design shall be revised to provide a biotechnical bank protection design to replace the replacement of rip rap on that section of the south bank of Cache Creek extending 1,500 feet downstream from the I-505 bridge, unless engineering evaluations demonstrate that rip rap must be used at certain locations to control severe erosion (Mitigation Measure 4.6-2d).”</p> <p>The County has determined the plan revisions and improvements required by this condition were completed. Maintenance and monitoring are ongoing.</p> <p>Mitigation Measure 4.6-2e/Condition of Approval No. 55)^a requires:</p> <p>“The HRP shall be revised to include provisions to remove tamarisk and giant reed from the site as part of the creek restoration effort and to modify restoration plans for the in-channel depression north on the Snyder East parcel in Phase 6 to enhance the existing riparian woodland rather than establishing seasonal marsh at this location (Mitigation Measure 4.6-2e).”</p> <p>A revised restoration plan was submitted April 27, 1997. The improvements required by this condition were subsequently completed. Maintenance and monitoring are ongoing. As a part of the proposed project, CEMEX has proposed a permit modification which includes a Weed Control Plan.</p>
4.6-3	<p>Mining and reclamation activities would disturb existing wildlife habitat and components of the proposed HRP would be of limited habitat value. This is considered to be a significant impact.</p>	<p>Mitigation Measure 4.6-3a/Condition of Approval No. 56^a requires:</p> <p>“At least one permanent island shall be created on one of the permanent lakes to improve their wildlife habitat value. The artificial islands and submerged peninsulas described in the HRP shall be retained on all lakes. Characteristics of the permanent island shall include the following:</p>

		<p>a. The elevation of the island shall extend a minimum of five feet above the average high groundwater level (approximately 125-foot elevation) to prevent complete inundation during the winter months. Slopes of the island shall not exceed 3:1 above the average low groundwater level.</p> <p>b. The channel of water separating the island from the mainland shall have a minimum distance of 20 feet and a depth reaching at least 5 feet during the average summer low groundwater level to prevent predators from wading to the island during the summer months. A temporary levee to permit vehicle access and maintenance of restoration plantings on the island shall be included in the design, but the levee shall be removed following completion of the minimum five year monitoring program for the restoration effort.</p> <p>c. The island shall be revegetated according to the HRP, with perennial marsh at the lowest elevations and low terrace riparian species up to the average high groundwater level, with a cover of grassland and scattered shrubs provided over the top of the island (Mitigation Measure 4.6-3a).”</p> <p>The plan revisions required by this condition were completed but the approved 1995/1997 HRP does not address vegetation of the island. Lake island design is addressed in the proposed HRP and analyzed below under Impact 4.3-4 and Mitigation Measure 4.3-4c.</p> <p>Mitigation Measure 4.6-3b/Condition of Approval No. 57^a requires:</p> <p>“The unique bluff habitat between the upper terrace and the existing haul road on the Snyder East parcel in Phase 6 shall be preserved. Mitigation Measure 4.3-4a of the Final EIR for the proposed project provides appropriate mitigation for this impact (Mitigation Measure 4.6-3b).”</p> <p>The bluff habitat (see Figure 4.3-3) has not been disturbed. There will be no mining within 100 feet of the area, as a result of changes to the channel boundary and the 200-foot mining setback. The bluff will be preserved and dedicated to the County upon the completion of reclamation and the release of financial assurances for what is now Phases 4 and 5.</p>
4.6-4	Mining activities and aspects of the proposed reclamation would result in the loss of	Mitigation Measure 4.6-4a/Condition of Approval No. 58 ^a requires:

	<p>suitable foraging habitat for Swainson's hawk. This is considered to be a significant impact.</p>	<p>"A CDFG Code Section 2081 authorization, or the posting of a reclamation bond or letter of credit naming CDFG as the beneficiary, or other alternative mechanism acceptable to CDFG, shall be executed prior to commencement of mining (Mitigation Measure 4.6-4a)."</p> <p>A 2081 authorization was executed between the Operator and the California Department of Fish and Wildlife in July 1997. This easement was accepted as also providing mitigation for impacts to Swainson's hawk foraging land.</p> <p>Impact 4.3-1 and Mitigation Measure 4.3-1a and b require the applicant to: a) demonstrate to the satisfaction of County Counsel that the authorization was appropriately conveyed from the executing parties to CEMEX; and, b) demonstrate to the satisfaction of County Counsel whether the authorization terminates when the original permit would have terminated in on August 11, 2027, resulting in need for reauthorization or carries through the life of the mining and reclamation activities (including implementation of the Habitat Restoration Plan if a 20-year extension is granted.</p>
<p>4.6-5</p>	<p>Mining activities would affect suitable habitat for special-status species, such as valley elderberry longhorn beetle, bank swallow, and other species of concern. This is considered to be a significant impact.</p>	<p>Mitigation Measure 4.6-5a/Condition of Approval No. 59^a requires:</p> <p>"The proposed HRP shall be revised to include specific provisions to ensure compliance with the USFWS "General Compensation Guidelines for the Valley Elderberry Longhorn Beetle." This shall include measures to: protect all elderberry shrubs to be retained; transplanting shrubs that cannot be avoided; planting replacement elderberry seedlings and associated riparian vegetation at appropriate ratios; and defining short and long-term maintenance, monitoring, and protection methods for the designated mitigation areas. A pre-construction survey for elderberry shrubs shall be performed by a qualified biologist prior to commencement of mining. The survey shall serve to confirm previous mapping of elderberry locations and determine whether any new shrubs have become established within the new mining area for which protection or replacement should be provided. The results of the survey shall be submitted to the USFWS as a report summarizing the purpose, findings, and recommendations consistent with the provisions of the revised HRP. All elderberry shrubs to be retained shall be flagged and fencing provided where necessary</p>

		<p>to preclude possible damage or loss of shrubs (Mitigation Measure 4.6-5a).”</p> <p>The elderberry shrub survey was completed in 1997. An addendum to the 1995 HRP including the above requirements was submitted to the County on April 24, 1997. Implementation is ongoing.</p> <p>CEMEX flagged the elderberry shrubs in the field on November 18, 2021. Fencing has not been installed. CEMEX proposes to avoid the shrubs with a 100-foot setback by adjusting the limits of mining as reflected in the proposed mining plans for Phase 3 (see Mining Sheet M-05).</p> <p>Mitigation Measure 4.6-5b/Condition of Approval No. 60^a requires:</p> <p>“Implement the performance standard included in Section 10-4.433 to prevent the inadvertent take of bank swallows (Mitigation Measure 4.6-5b).”</p> <p>Stockpiles are limited to 40 feet in height and a 2:1 slope to preclude use by bank swallows. Compliance with this is verified annually during County inspections.</p> <p>Mitigation Measure 4.6-5c/Condition of Approval No. 61^a requires:</p> <p>“The HRP shall be revised to include specific provisions to replace the artificial bank swallow nesting habitat created by past mining activities on the Hutson parcel. These provisions shall include design, construction, and maintenance activities necessary to implement one or more of the following options: establishing suitable nesting habitat on designated side slopes of the permanent lakes, replicating conditions on the Hutson parcel in Phase 1 at a new location; restoring the vertical bluffs above the mining-related riparian habitat in the northern portion of the Snyder East parcel in Phase 6; and/or creating and perpetuating a vertical bank along a designated segment of the active channel of Cache Creek (Mitigation Measure 4.6-5c).”</p> <p>The bluff habitat has been restored as required and continue to provide important cliff habitat for bank swallows. Some of the areas have become heavily vegetated over time and are used less frequently by bank swallows while other areas have fresh erosion scars, with near vertical banks that are still actively used by the</p>
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		<p>bank swallows (Year 25 Habitat Monitoring Report, Zentner, October 26, 2022).</p> <p>Mitigation Measure 4.6-5d/Condition of Approval No. 61.5^a requires:</p> <p>“A pre-construction raptor survey shall be conducted by a qualified wildlife biologist prior to initiation of mining to determine the presence or absence of active raptor nests which could be disturbed or lost within the new mining area. The results of the survey shall be submitted to the CDFG as a report summarizing the purpose, findings, recommendations, and status of any nests encountered. Elements of the pre-construction nesting survey and construction restrictions shall include the following:</p> <ul style="list-style-type: none"> • Conduct the survey 30 days prior to any grading or other habitat modifications if proposed during the breeding season for tree nesting raptors (from March 1 through August 15). Confirmation surveys on presence or absence of burrowing owl ground nesting colonies shall be required prior to initiation of a particular phase of mining at any time of year to ensure absence of any resident owls. • If an active raptor nest is encountered, establish an appropriate buffer around the nest location, as determined in consultation with representatives of CDFG. The perimeter of the buffer zone shall be flagged in the field at 50-foot intervals, and all construction activities, including grading, tree removal, equipment storage, and stockpiling of soils, shall be prohibited within this buffer zone. • Prohibit construction activities within the designated buffer zone until the consulting wildlife biologist has determined that breeding was unsuccessful, that the young have fledged from the nest, or that a CDFG-approved relocation plan has been successfully implemented. • Prohibit construction activities, including removal of any nest tree or burrow, within the designated buffer zone unless written confirmation from the wildlife biologist on the status of nesting activity has been submitted in writing to CDFG (Mitigation Measure 4.6-5d).”
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		<p>Mitigation for loss of hawk foraging was addressed with the 2081 requirement (Condition of Approval No. 58) which is fulfilled. The applicant remains subject to survey requirements by phase to avoid impacts to protected species.</p> <p>Phase 1 is in the process of being reclaimed. A survey for raptor and other native bird nests in active use was conducted prior to mining under the short-term permit and no nest sites were discovered. A survey was completed for Phase 2 in the Spring of 1997 by Zentner and Zentner. No nest sites were discovered. A survey for Phase 3 was completed in October 1999 and included in the 1999 Annual Compliance Report. A pre-construction survey for Phases 4 and 5 was completed in September 2002. No listed species were found on site. The Operator has not yet commenced mining in Phases 6 or 7. Additional surveys will be conducted per the terms of the condition to ensure no impacts to nests as a result of approved activities. Updates to this condition are required in Mitigation Measure 4.3-1c.</p> <p>Condition of Approval No. 12 of the 2022 Minor Modification (ZF #2022-0037) requires:</p> <p>“In compliance with approved mining and reclamation permit conditions 59 and 61.5 the applicant shall engage the services of a qualified biologist to undertake a biological resources assessment of the new (renumbered) Phase 5 area prior to commencement of mining in that phase. Results shall be presented to the County demonstrating no impacts to special status species.”</p> <p>The Phase 5 Biological Resources Assessment was submitted to the County in July 2022 and is included as Appendix L of this Draft SEIR.</p> <p>A condition of approval is proposed requiring future surveys to be in compliance with applicable HCP/NCCP Avoidance and Mitigation Measures.</p>
4.6-6	Proposed mining and reclamation activities would affect jurisdictional wetlands or other waters of the United States. This is considered to be a significant impact.	<p>Mitigation Measure 4.6-6a/Condition of Approval No. 62^a requires:</p> <p>“Channel bank modifications shall be coordinated with the U.S. Army Corps and California Department of Fish and Game. If required by jurisdictional agencies, appropriate authorization to modify jurisdictional habitat</p>

		<p>shall be obtained prior to grading or other modifications. Use of biotechnical bank protection design methods shall be encouraged where bank stabilization is required, such as the segment of active erosion on the Kaupke parcel north of Phase 2 (Mitigation Measure 4.6-6a).”</p> <p>All required channel bank modifications have received required agency approvals/permits and have been constructed. This condition is implemented and fully discharged with respect to known conditions. Implementation is ongoing with respect to subsequent identified conditions and future relocation of drainages as discussed further under Impact 4.3-3.</p>
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^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review. As modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.3-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The impact would be *significant*.

As discussed in the 1996 EIR, approved project activities would result in potential impacts on special-status species, including Swainson’s hawk, VELB, bank swallow, and nesting raptors. Under the proposed project the phasing and extent of these impacts may differ, although the overall impact is generally the same. In general, mitigation measures and conditions of approval indicated in Table 4.3-1 would continue to effectively mitigate project impacts . Some updating is

necessary to reflect current standards and guidance. Potential impacts on each of these species remains potentially significant as summarized below.

Swainson's Hawk. As noted earlier, in satisfaction of Mitigation Measure 4.6-4a from the 1996 EIR and Condition of Approval No. 58, a 2081 authorization was executed between the original operator (Solano Concrete) and CDFW in July 1997. This authorization and a resulting conservation easement were accepted as also providing mitigation for impacts to Swainson's hawk foraging habitat. The 2081 authorization (or CESA MOU) includes the following provisions relevant to assignment, amendment, and the term of the agreement:

10.0 ASSIGNMENT

Any sale or assignment of this CESA MOU or any of the rights or obligations hereunder is void absent the written consent of the Parties; provided, however, that no consent shall be required for assignment or pledge made by Solano Concrete (a) to any company that shall succeed by purchase, merger or consolidation to the properties of Solano Concrete; or (b) as security for a debt under the provision of any mortgage, deed of trust, indenture, bank credit agreement, or similar instrument.

14.0 FURTHER ACTIONS

From time to time, the Parties shall by mutual agreement execute such instruments and other documents, and take such other actions, as may be reasonably necessary to carry out the terms of this CESA MOU. This CESA MOU cannot be amended or modified in any way except by a written instrument duly executed by the Parties.

15.0 TERMINATION

This CESA MOU shall terminate 30 years from the date of execution or upon completion of all terms and conditions; provided, however, that the measures contained herein and in the Mitigation Plan shall not apply to any Project parcel that is not mined and remains in its current use.

Additional information is needed for the County to confirm that the 2081 authorization was properly conveyed to CEMEX from the executing parties, whether amendment of the authorization is required to reflect the proposed project, and/or whether the authorization will terminate 30 years from execution which would be September 24, 2027, or may be continued in some manner in order to continue to rely upon it for purposes of the proposed project.

Should new "take" authorization be required, coverage under the Yolo HCP/NCCP, including implementation of relevant avoidance and minimization measures, may be required. The Yolo HCP/NCCP was approved in 2019, and Swainson's Hawk is one of 12 covered species in that plan. Mining under the CCAP is a covered activity under the Yolo HCP/NCCP.

Bank Swallow. Mitigation Measures 4.6-4a (Condition of Approval No. 58), 4.6-5b Condition of Approval No. 60), and 4.6-5c (Condition of Approval No. 61) from the 1996 EIR and permit approval satisfy mitigation requirements for potential impacts to bank swallow. The Vertical Bluff Habitat north of the Snyder East parcel is preserved and protected from mining and reclamation activities. Revisions to Condition of Approval No. 61.5 are identified below to ensure that pre-construction surveys for nesting birds address the potential for new nesting colonies on the site that could be affected by grading and other habitat modifications under the proposed project

Valley Elderberry Longhorn Beetle (VELB). Mitigation Measure 4.6-5a (Condition of Approval No. 59) calls for compliance with the USFWS "General Compensation Guidelines for the Valley Elderberry Longhorn Beetle" in providing compensatory mitigation for impacts on VELB habitat. Elderberry shrubs, which serve as the larval host for VELB, could still be affected by continuing activities at the site under the proposed project, and this measure would ensure potentially significant impacts are addressed. However, the USFWS updated these general compensation guidelines in 2017, which are now referred to as the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle*. To avoid unknown future impact, required pre-construction surveys for each phase should follow the updated framework. Revisions to COA #59 are identified below to address this.

Nesting Birds. Mitigation Measure 4.6-5d (Condition of Approval No. 61.5) calls for conduct of pre-construction surveys to confirm presence or absence of nesting raptors that could be affected by mining and other activities. Though implied, this mitigation measure does not specifically address the potential for nesting by other native bird species, active nests of which are also protected under the Migratory Bird Treaty Act and State Fish and Game Code. Without pre-construction surveys and appropriate avoidance setbacks while nests are in active use, this could be a potentially significant impact of the proposed project. Revisions to COA #61.5 are identified below to address this potentially significant impact on native birds.

Western Red Bat. Trees on the project site could be used as roosting by western red bat, and other species of special-status bats. Western red bat roosts in trees and shrubs adjacent to streams and open fields and in the Central Valley have been found in trees in agricultural areas. Limited potential habitat occurs within the riparian woodland along Cache Creek, and possibly in scattered trees within the proposed mining area on the site.

Individual bats could be injured or killed if project controls are not taken in advance of tree removal, which would be a significant impact given the special-status of this species. Pre-construction surveys to confirm presence or absence of roosting bats, as identified below, would address this potentially significant impact on possible roosting habitat. Sufficient alternative roosting habitat is present along the Cache Creek corridor and other locations on the site, and no compensatory mitigation is required for loss of potential habitat.

Conclusion

As presented above, there are proposed changes in the project related to the proposed 20-year extension of the permit and the validity of the 2081 MOU that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there are also changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact. These changes relate to: 1) updated references to applicable mitigation regulations, frameworks, and practices; and 2) effects on additional special status bat species.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.3-1a

To demonstrate that potential impacts on Swainson's hawk and bank swallow foraging habitat are adequately mitigated, the applicant shall:

- a. Demonstrate to the satisfaction of County Counsel that the 2081 authorization was appropriately conveyed from the executing parties to CEMEX; and,*
- b. Determine to the satisfaction of County Counsel whether the 2081 authorization will terminate, require amendment, require reauthorization, or should be superseded by participation in the Yolo HCP/NCCP.*

Mitigation Measure 4.3-1b

COA #59 shall be revised as follows to reference applicable requirements for addressing potential impacts on VELB:

The proposed Reclamation Plan, including relevant plan sheets, the reclamation narrative, and the HRP, as appropriate, shall be revised to include specific provisions to ensure compliance with the USFWS "Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle." ~~"General Compensation Guidelines for the Valley Elderberry Longhorn Beetle."~~ This shall include measures to: protect all elderberry shrubs to be retained; transplanting shrubs that cannot be avoided; planting replacement elderberry seedlings and associated riparian vegetation at appropriate ratios; and defining short and long-term maintenance, monitoring, and protection methods for the designated mitigation areas. A pre-construction survey for elderberry shrubs shall be performed by a qualified biologist prior to commencement of each phase of mining. The survey shall serve to confirm previous mapping of elderberry locations and determine whether any new shrubs have become established within the new mining area for which protection or replacement should be provided. The results of the survey shall be submitted to the County USFWS as a report summarizing the purpose,

findings, and recommendations consistent with the provisions of the revised HRP. All elderberry shrubs to be retained shall be flagged and fencing provided where necessary to preclude possible damage or loss of shrubs.

Mitigation Measure 4.3-1c

COA #61.5 shall be revised as follows to avoid native bird nests in active use and ensure compliance with the Migratory Bird Treaty Act and CDFW Code:

A pre-construction raptor and native bird nesting survey shall be conducted by a qualified wildlife biologist prior to initiation of mining in each phase to determine the presence or absence of active raptor and other native bird nests which could be disturbed or lost within the new mining area. The results of the survey shall be submitted to the County CDFW as a report summarizing the purpose, findings, recommendations, and status of any nests encountered. Elements of the pre-construction nesting survey and construction restrictions shall include the following:

- Conduct the survey 30 days prior to any tree removal and grubbing, grading or other habitat modifications if proposed during the breeding season for tree nesting raptors and other native birds (from February March 1 through August 31~~45~~). Confirmation surveys for ground nesting bank swallow shall be conducted as well during this period when grading and other habitat modifications are proposed during the breeding season. Confirmation surveys on presence or absence of burrowing owl ground nesting colonies shall be required prior to initiation of a particular phase of mining at any time of year to ensure absence of any resident owls.*
- If an active raptor or other native bird nest is encountered, establish an appropriate buffer around the nest location, as determined in consultation with representatives of CDFW CDFW. The perimeter of the buffer zone shall be temporarily fenced or flagged in the field at 50-foot intervals, and all construction activities, including grading, tree removal, equipment storage, and stockpiling of soils, shall be prohibited within this buffer zone.*
- Prohibit construction activities within the designated buffer zone until the consulting wildlife biologist has determined that breeding was unsuccessful, that the young have fledged from the nest, or that a CDFW CDFW-approved relocation plan has been successfully implemented.*
- Prohibit construction activities, including removal of any nest tree or burrow, within the designated buffer zone unless written confirmation from the wildlife biologist on the status of completed nesting activity has been submitted in writing to the County and CDFW CDFW.*

Mitigation Measure 4.3-1d

The following measures will avoid inadvertent take of western red bat and other special-status bat species, if present in trees to be removed:

- *A qualified biologist shall visually inspect trees to be removed for bat roosts within 7 days prior to their removal. The biologist shall look for signs of bats including sightings of live or dead bats, bat calls or squeaking, the smell of bats, bat droppings, grease stains or urine stains around openings in trees, or flies around such openings. Trees with multiple hollows, crevices, forked branches, woodpecker holes, or loose and flaking bark have the highest chance of occupation and shall be inspected carefully.*
- *If signs of bats are detected, confirmation of presence or absence shall be determined by the qualified biologist, which may include night emergence or acoustic surveys. Appropriate measures shall be recommended by the qualified biologist to prevent loss or injury to individual bats if determined to be present. This may include phased removal of any occupied tree over multiple days to allow individual bats to disperse to other roosting locations.*
- *If an active maternity roost is encountered during the maternity season (April 15 to August 31), CDFW shall be contacted for direction on how to proceed and an appropriate exclusion zone established around the occupied tree or structure until young bats are old enough to leave the roost without jeopardy. The size of the buffer would take into account the proximity and noise level of project activities, the distance and amount of vegetation or screening between the roost and construction activities; and species-specific needs, if known, such as sensitivity to disturbance.*
- *Due to restrictions of the California Health Department, direct contact by workers with any bat is not allowed. A qualified bat biologist shall be contacted immediately if a bat roost is discovered during project construction.*

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.3-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. The impact would be *less than significant*.

As concluded in the 1996 EIR, mining and other activities could result in significant impacts on riparian habitat and mature oaks unless appropriate controls are taken to restrict access and limit disturbance as called for in Mitigation Measures 4.6-2a (Condition of Approval No. 51), 4.6-2b (Condition of Approval No. 52), 4.6-2c (Condition of Approval No. 53), 4.6-2d (Condition of Approval No. 54), and 4.6-2e (Condition of Approval No. 55). These measures have been completed and/or remain a requirement of the project as mining and reclamation progresses.

Conditions of Approval No. 17 and Condition of Approval No. 79 related to methylmercury require the following:

- COA #17 The operator is prohibited from proceeding with any new wet excavation, unless ambient mercury levels in the creek have been determined pursuant to Section 10-5.517 of the Reclamation Ordinance, six months prior.
- COA #79 Comply with Section 10-4.420.1 of the County Mining Ordinance and 10-5.517 of the County Reclamation Ordinance related to Mercury Bioaccumulation in Wildlife.

Monitoring and reporting related to these conditions are ongoing. Mercury is a state-wide problem, and the State and the County have been regulating and monitoring mercury for many years. The CCAP was designed to consider mercury, and actively manages and monitors it annually through the CCAP. The requirements of the mercury monitoring program were greatly expanded in detail as part of the comprehensive 2019 CCAP Update.

Essentially, if methylated mercury in lake fish exceeds ambient levels in the watershed the operators must address it with a Lake Management Plan. Options include water mixing, management of water chemistry, fish removal, and filling the lake. The County will not accept dedication without acceptable monitoring history and/or a successful lake management plan. Operators are required to establish a mechanism to pay for their individual Lake Management Plans in perpetuity. In addition, the County's Maintenance and Remediation Fee is available should unforeseen management issues occur in reclaimed lakes owned by the County. This topic is addressed in detail in Section 4.6, Hydrology and Water Quality.

Condition of Approval No. 80 requires native species for all habitat restoration and erosion control:

- COA #80 Pursuant to Sections 10-4.433 (Soil Stockpiles), 10-5.508 (Erosion Control), 10-5.533 (Wetland Habitat), and 10-5.601(c)(1) of the Reclamation Ordinance, reclamation, restoration, vegetative erosion control, etc. occurring after December 31, 2020 shall utilize plant material and/ seed mixes collected in the vicinity of the project site in order to control the origin of the genetic stock and provide the most site-adapted ecotypes. Native seeds, plants, and cuttings used for such activities shall be ecotypes of Cache Creek Watershed genetic origin including areas outside of Yolo County and of Yolo County genetic origin when materials are used that originate from outside of the Cache Creek Watershed.

The proposed project includes revisions to the reclamation plan and HRP to include all native species.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.3-3: Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The impact would be *less than significant*.

As discussed in the 1996 DEIR, mining activities on the Snyder East parcel would require relocation of approximately 1,000 linear feet of an existing drainage ditch which passes through the southeastern portion of the site and is likely a regulated waters. The proposed project amendment includes relocation of this feature along the east side of the Snyder East parcel, east of the eastern lake. This feature is regularly maintained for drainage purposes and the segment to be relocated was devoid of any vegetative cover so replacement as part of proposed realignment would adequately address potential impacts to this feature.

Mitigation Measure 4.6-6a (Condition of Approval No. 62) called for securing authorizations from the U.S. Army Corps and CDFW for any channel modifications, if required, prior to grading or other modifications. This measure remains applicable, and Condition of Approval No. 62 would continue to apply. No new impacts associated with the proposed project are anticipated and impacts would be less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation

that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.3-4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The impact would be *significant*.

The proposed project would alter existing habitat and impact special-status species as discussed under Impact 4.3-1 and would degrade the quality of the reclaimed environment for wildlife as discussed in Impact 4.3-6. The proposed project could also result in interference with the movement of wildlife species, impacts to wildlife corridors, and adverse effects on wildlife nursery sites under future reclaimed conditions. However, with implementation of the reclamation plan and proposed habitat restoration as mitigated, these outcomes would be avoided, and the project would not substantially degrade the quality of the environment. Therefore, the potential for impacts would be mitigated to acceptable levels.

Conclusion

As presented above, there are proposed changes in the project reclamation that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts related to species movement and planned habitat corridors, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure 4.3-4

Implement Mitigation Measures 4.3-1(a through d), and Mitigation Measures 4.3-6 (a through c).

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.3-5: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. The impact would be *less than significant*.

The proposed project is a covered activity within the plan area of the Yolo HCP/NCCP. As discussed under Impact 4.3-1, the applicant secured a 2081 authorization with CDFW in 1997 to address potential impacts of mining on Swainson's hawk and bank swallow. The authorization remains in effect until 2027, unless modified to extend beyond that termination date. Mitigation measures from the 1996 EIR serve to address potential impacts on VELB and nesting raptors, and revisions to these measures recommended above under Impact 4.3-1 serve to address potential impacts on active bird nests protected under the MBTA and State Fish and Game Code as well as potential roosting by bat species of concern.

Mitigation Measure 4.3-1a requires CEMEX to provide additional information verifying that the 2081 authorization was properly conveyed to CEMEX from the executing parties, determining whether amendment of the authorization is required to reflect the proposed project, and confirming whether the authorization will terminate 30 years from execution which would be September 24, 2027, or may be continued in some manner in order to continue to rely upon it for purposes of the proposed project. Should new "take" authorization be required, coverage under the Yolo HCP/NCCP, including implementation of relevant avoidance and minimization measures, may be appropriate/required. No conflicts with the Yolo HCP/NCCP are anticipated and there would, therefore, the potential for impact would be less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None Required.

Impact 4.3-6: The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or

animal community; or substantially reduce the number or restrict the range of an endangered, rare or threatened species. The impact would be *significant*.

As discussed in the 1996 EIR, wildlife habitat affected by mining activities would be largely limited to agricultural fields since disturbance would generally be restricted to areas outside the sensitive riparian habitat along the Cache Creek corridor. Species adapted to areas of agricultural cover already experience routine disturbance and population fluctuations due to agricultural practices. Small mammal and reptile populations collectively provide an important foraging base for Swainson's hawk and other raptors. Habitat and movement corridors provided by restored hedgerows, restored habitat along the creek, and the perimeter habitat around the future reclaimed lakes would help maintain prey populations and the prey base of raptors and other predators, and serve to achieve the wildlife habitat restoration goals of the proposed HRP. The degree to which the proposed project and proposed HRP would adequately address the quality of the reclaimed environment for wildlife and would substantially affect the planned reclaimed habitat for wildlife species is discussed below.

Hedgerows. General Plan Policy CO-2.17 calls for emphasizing and encouraging the use of wildlife-friendly farming practices, including establishing native shrub hedgerows and/or tree rows along field borders. Action 6.4-8 in the OCMP calls for including native-planted hedgerows and other vegetated buffers between restored habitat areas and adjoining farmland to minimize the potential for riparian areas to serve as harbors for predators and insect pests, buffer agricultural operations and providing valuable pollinator resources that in turn could enhance agricultural production. Section 10-4.440 of the Mining Ordinance and Section 10-5.523 of the Reclamation Ordinance require establishment of native-planted hedgerows and/or other vegetated buffers between restored habitat areas and adjoining farmland.

The approved project is subject to the following conditions related to hedgerows:

Condition of Approval No. 26 of the 1996 Approval: Pursuant to Action 6.4-8 of the OCMP, Section 10-4.440 of the Mining Ordinance, and Section 10-5.523 of the Reclamation Ordinance, hedgerows and other vegetated buffers required between restored habitat areas and adjoining farmland, shall use entirely native species. These hedgerows/buffers are intended to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers are intended to also reduce noise, dust, and spraying generated by agricultural operations.

Condition of Approval No. 51 of the 1996 Approval: Figure 8 of the HRP shall be revised to indicate the location of hedgerow plantings, around the Hutson parcel in Phase 1 or as specified as part of habitat enhancement in a Section 2081 permit if required by the CDFG, or to mitigate as a 1:1 ratio the actual loss of fence row habitat (Mitigation Measure 4.6-2a).

Condition of Approval No. 4 of the 2022 Minor Modification: Implement hedgerow planting to provide required vegetative cover within a continuous uninterrupted band along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2. The width of the new hedgerow planting shall match the width of the existing hedgerow plantings on the north. If the PG&E powerline easement prohibits the planting of species identified for the rest of the hedgerow, alternative native species may be proposed for

the powerline easement right-of-way area. The design shall be approved by the County with input from the Cache Creek Area Plan Technical Advisory Committee's Riparian Biologist. The applicant shall submit design plans (including proposed native species and irrigation) for County review and approval no later than September 30, 2022. All approved improvements shall be implemented within 90 days of County approval.

Condition of Approval No. 5 of the 2022 Minor Modification: Throughout the life of the mining and reclamation approvals, the applicant shall annually monitor and actively maintain the hedgerows.

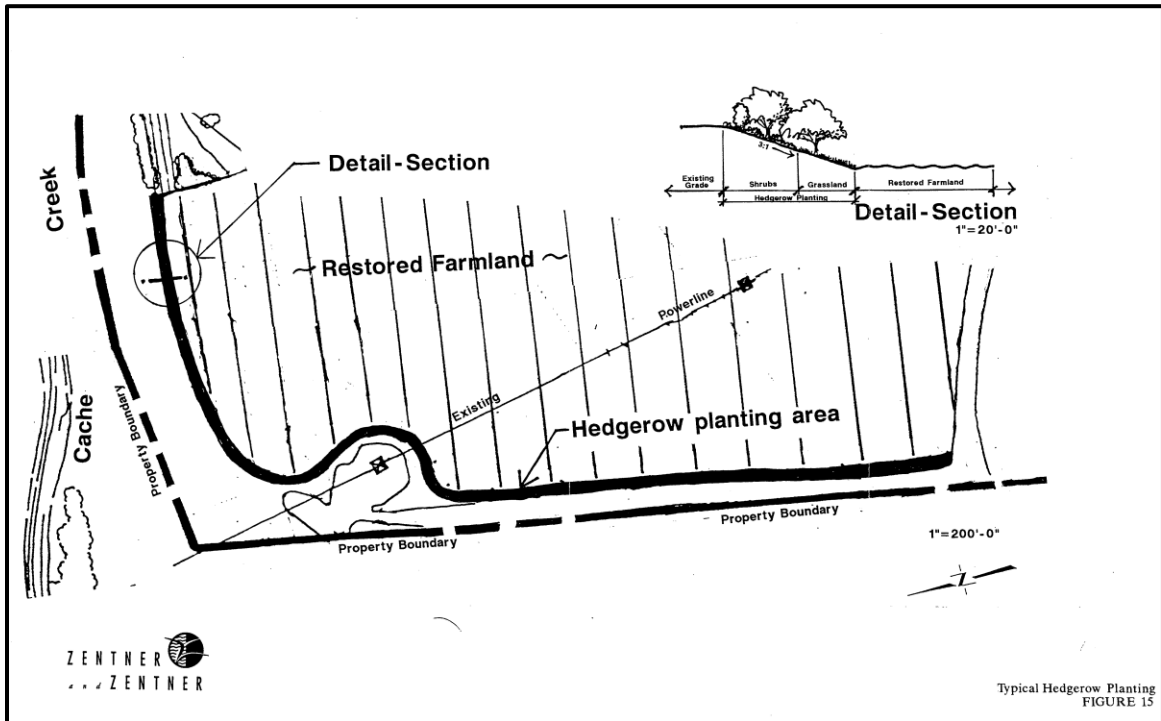
The approved 1995/1997 HRP, consisting of the 1995 HRP document plus the 1997 Addendum, includes on page 46 language describing required hedgerow restoration on the edges of the reclaimed agricultural lands (excerpted below):

3. Hedgerow Restoration

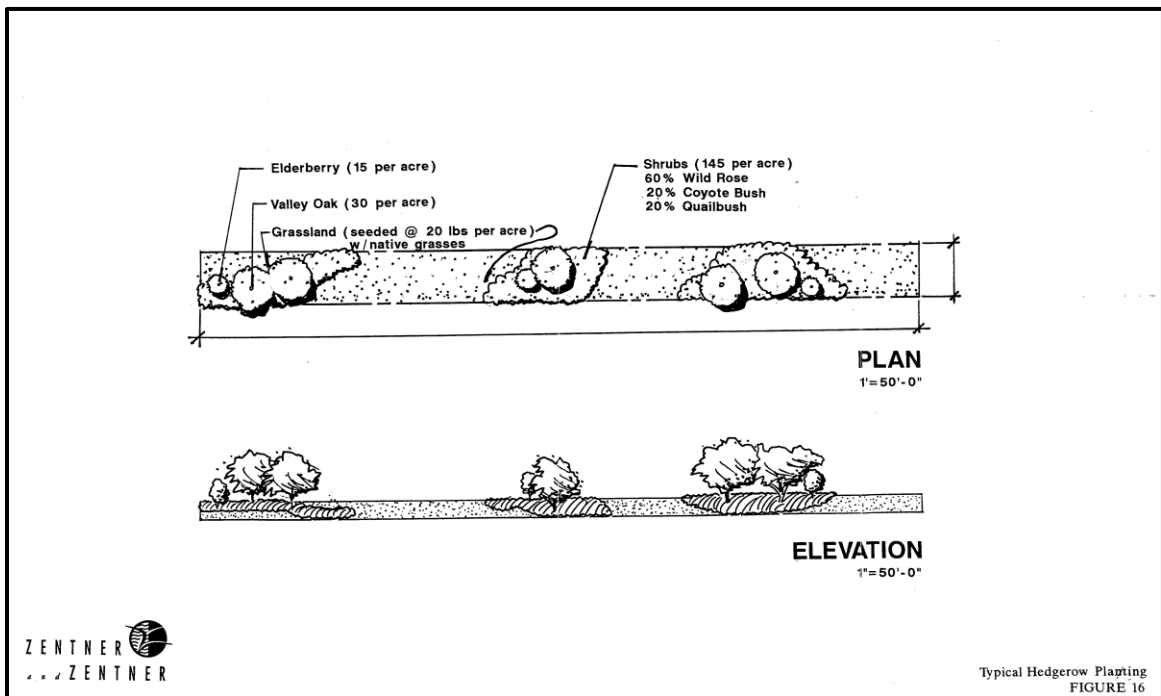
Hedgerows are traditional and important components of any diverse agricultural system. In this project, hedgerow areas will be provided on the edges of the reclaimed agricultural lands. Figures 15 and 16 show a typical planting plan for one hedgerow; this pattern would be duplicated throughout the reclaimed agricultural area.

The 3:1 slopes will be planted with a diverse mix of oak woodland and native grassland species. Valley oaks will be dominant in this area at a density of approximately 30 per acre. These hedgerows will also eventually provide roosting habitat for the Swainson's Hawk (SH). While the project site is probably used for foraging by the SH, it is not near nest sites and the proximity of other alfalfa fields to these nest sites makes high intensity use by SH of the project site unlikely except on rare occasions.

Typical cross-sections and plans are provided in Figures 15 and 16 of the 1995/1997 HRP:

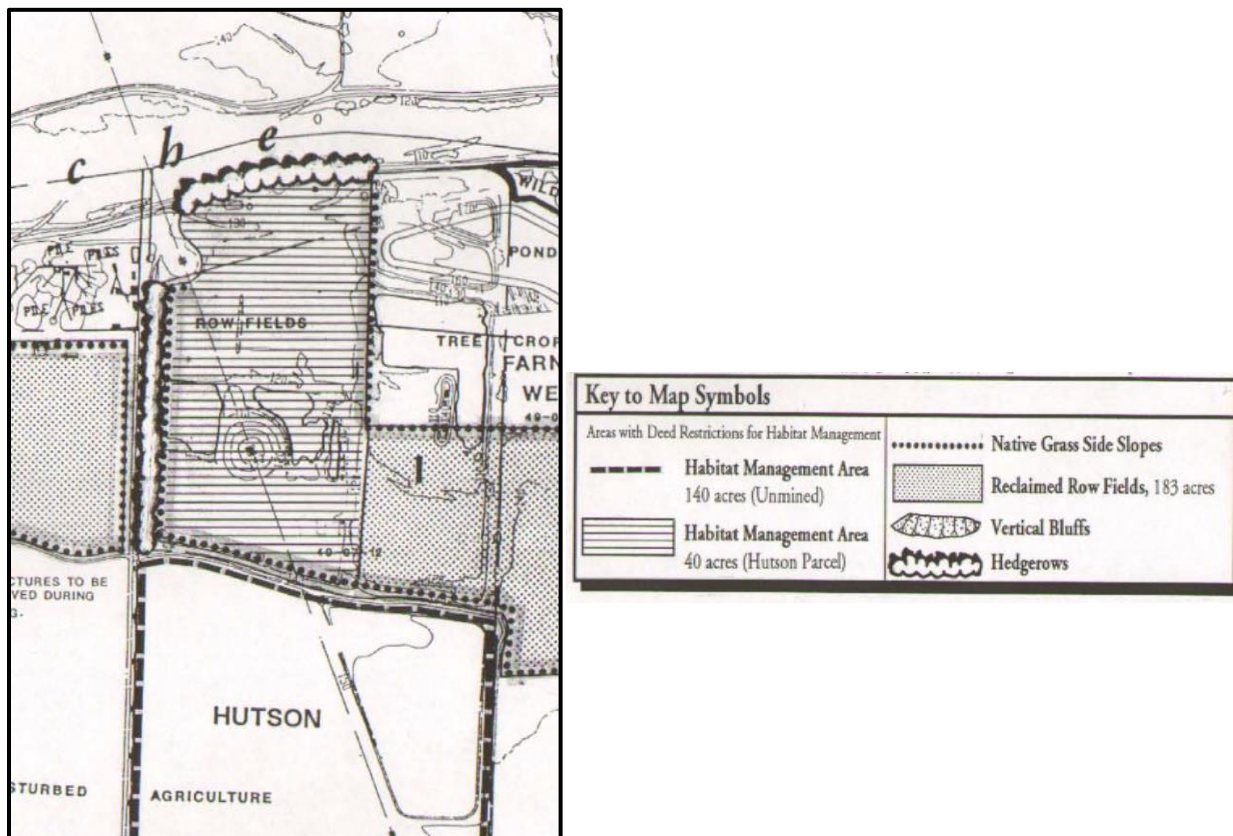


Typical Hedgerow Planting
FIGURE 15



Typical Hedgerow Planting
FIGURE 16

The revised figure provided with the 1997 Addendum (1997 HRP Addendum, Figure 3, Habitat Management Lands, Zentner and Zentner, March 28, 1997) depicts hedgerows along the north and west sides of the approximate west half of Phase 1:



As described earlier, based on the 2022 Minor Modification application, approximately 3.0 acres of restored hedgerows were assumed to exist on the site just north of the west side of Phase 1. Approximately 2.7 acres were planted in that location in 1997 through 2002 as mitigation for loss of hedgerow plantings as mining occurred in Phase 1 of the Farnham West parcel. Over time, the natural recruitment of vegetation has increased the vegetative cover to 3.0 acres (see Figure 4.3-3, 2081 MOU Habitat Areas). CEMEX has not actively maintained this area, nor monitored it in annual compliance reports prior to 2022.

In October of 2023 Cemex informed the County, based on information provided by their biologists Zentner Planning & Ecology, that the ±3.0-acre area of hedgerows was mistakenly characterized and should instead be considered “riparian” restoration. The proposed HRP correctly refers to the existing hedgerow area as a “riparian depression”.

In examining applicant compliance with prior approvals, the Minor Modification analysis relied on the applicant’s previous characterization of this area as hedgerows. However, because no acreage credit was given for the 3.0 acres as part of the Minor Modification consideration, the County has determined the error does not materially change the Minor Modification approval or conditions. Implementation of Minor Modification Condition of Approval #4 identified above will

result in the creation of a larger area of hedgerows, including restoration of the subject 3.0 acres within the larger hedgerow area, thus rectifying the error.

As a component of implementing Minor Modification Condition #4, the applicant has subsequently provided plans showing proposed hedgerow restoration and irrigation along the north and west side of Phase 1 (see Figure 4.3-4, Sample Area of Proposed Hedgerow Restoration and Figure 4.3-5, Sample Area of Proposed Hedgerow Irrigation). The proposed Hedgerow Restoration plan identifies native grass seed mix rates that differ from those identified in Table 4, Native Grassland Buffer Plant List, on page 19 of the proposed HRP (Appendix E). In the proposed native grass seed mix for the hedgerow plantings, three species are identified rather than the ten specified in the proposed HRP, as well as a lower application rate of 37 rather than 48.5 lbs/acre. Also, milkweed and mugwort rose pot plantings are not included as part of the native grass treatment for the proposed hedgerow plantings but are included in the Native Grassland Buffer zones in the proposed HRP. Minor Modification Condition #4 is modified and carried forward in Mitigation Measure 4.3-6a. Other required modifications to the applicant's proposed hedgerow plans, to address items identified above, are also identified in Mitigation Measure 4.3-6a

Hedgerows provide important habitat for wildlife, and are a required element of habitat restoration under the CCAP. The proposed hedgerow restoration and irrigation plans provide important design specifications and should be fully integrated into the proposed HRP. The proposed HRP includes establishment of native grassland cover in transition areas between restored habitat and reclaimed agriculture, but does not include the expanded hedgerow habitat required by Condition of Approval No. 4 of the 2022 Minor Modification. There is an opportunity through implementation of the proposed HRP to satisfy outstanding requirements of the project by incorporating hedgerow plantings and ensuring successful establishment, as well as mitigate for impacts arising from the proposed revisions to the project by establishing hedgerows along the edges of reclaimed agricultural lands as described in the approved 1995/1997 HRP. Hedgerows improve overall habitat values, provide important wildlife movement corridors, and help reduce noise, dust, and spraying generated by agricultural operations. They provide environmental benefits that offset detrimental impacts from the project to wildlife arising from 20 additional years of wildlife disturbance of a larger area, and a delay of reclamation to suitable habitat of up to 36 years. Expanding the hedgerows would also be consistent with the requirements of the CCAP (see County Code Section 10-4.440) which states in part: "Native-planted hedgerows and/or other vegetated buffers shall be included between restored habitat areas and adjoining farmland..."; and Section 10-5.523 which states in part: "Native-planted hedgerows and other vegetated buffers shall be included between restored habitat areas and adjoining farmland....". Mitigation measures identified below are required to provide for hedgerow plantings along reclaimed agricultural areas on the site as part of the proposed HRP.

The proposed revised reclamation and HRP would result in a 2:1 band of native grassland between reclaimed and existing agriculture (see page 9 of the proposed HRP, Appendix E) rather than 3:1 slopes planted with hedgerows comprised of a diverse mix of oak woodlands and native grasslands (see page 46 of the approved 1995/1997 HRP). This proposed change would result in less valuable reclaimed native habitat in these transition areas. The steeper band of more limited native grasslands habitat would reduce the habitat value which would increase impacts to biological resources, as compared to more gradual slope and more diverse native vegetation in the approved

HRP. Additional mitigation measures identified below would increase the habitat value of the proposed reclamation plantings in the reclaimed agricultural field transition areas which would reduce this impact and compensate for impacted habitat values, thus offsetting the impact.

The proposed project would increase the size of the reclaimed lake features by 33 percent from 153 acres as approved to 204 acres as proposed, and at the same time reduce the habitat contiguity of the future lakes (and lake habitat) to Cache Creek by 63 percent from 3,740 linear feet as approved to 1,400 linear feet as proposed. Additional mitigation measures identified below would require enhancement of a proposed band of native grasslands around the lakes to include hedgerow plantings which would help minimize this impact.

The proposed revised reclamation and HRP would not be consistent with Reclamation Ordinance Sections 10-5.509¹¹ and 10-5.523 that require reestablishment of field margin habitat. Additional mitigation measures identified below would ensure compliance in those field margin areas, thus avoiding the impact.

Mining activities inconsistent with approvals have impacted previously existing and previously restored/reclaimed hedgerows; delayed restoration/reclamation to hedgerows has exacerbated biological impacts; and underperforming design and failed maintenance of restored/reclaimed hedgerows have exacerbated biological impacts. Longer periods of mining, delayed reclamation, and larger areas of disturbance proposed as a part of the project would result in new and increased biological impacts. As a result, unmitigated impacts to biological resources remain and/or have increased, and will extend over a longer period of time. Additional mitigation measures identified below would help compensate for, and thus partially offset this impact.

Habitat Enhancement along Cache Creek. Overall, the proposed HRP would provide for substantial habitat enhancement along the Cache Creek corridor. This includes establishment of oak savanna and riparian woodland along a 300- to 500-foot-wide band adjoining the top of bank. The one exception to this is along the top of bank extending about 3,000 feet downstream of the I-505 bridge through the existing plant site. In this area, the proposed HRP identifies a narrow band of oak savanna and native grassland, with a width at or under 100 feet along much of the top of bank. Figure 4.3-6, Plant Site North Boundary, identifies in orange those areas where proposed habitat enhancement would extend less than 200 feet from the top of the creekbank. The plant site is identified to be reclaimed to primarily agriculture. There is an opportunity to provide future enhancement along the south bank of Cache Creek where woody riparian vegetation is largely absent.

The lack of woody riparian vegetation in this location is likely due, at least in part, to historic operations associated with the plant site which maximized use of the area all the way up to the top of bank. Much of the existing bank to Cache Creek has been hardened with installation of rock riprap to address erosion and protect the gravel storage areas, rock conveyors, utilities, and

¹¹ Requirements for fence row habitat included as part of the original drafting of the CCAP. Page 4.6-37 of the Solano 1996 EIR relating to benefits and mitigation derived from fence row habitat references Mitigation Measure 4.6-3a of the 1996 OCMP EIR (Draft volume) page 4.6-28 mandating action policy 6.4-13 of the OCMP. This language became Reclamation Ordinance Section 10-5.509 discussed above. Mining Ordinance Section 10-4.440 was modified during the CCAP Update (2019) to include parallel language.

other improvements. This erosion and the operator's response to protect mining assets represent changed circumstances under which the project is undertaken that affect project impacts on wildlife and reduce the ecological value of potential mitigation measures by reducing the viable space for wildlife to traverse along the creek. Combined with the narrow band of oak woodland habitat proposed under the proposed HRP, the lack of riparian cover would severely limit the future habitat values for this reach of Cache Creek. Providing a wider restored area of at least 200 feet, enhanced with oak savanna and native grassland plantings would resolve historic infringement on the creek corridor in this area and provide a more consistent band of riparian habitat along the north edge of the site. It would also provide a larger buffer area to accommodate future bank movement typically associated with riparian systems without posing a risk to agricultural improvements, such as irrigation lines and farm maintenance roads. The enhanced creek corridor would provide environmental benefits that offset detrimental impacts of the project on wildlife arising from 20 additional years of wildlife disturbance of a larger area, and a delay of reclamation to suitable habitat of up to 36 years.

This modification to the reclamation plan to add what equates to about 6.2 acres of oak savanna and native grassland plantings would not adversely affect future agricultural reclamation of the plant site, or trigger mitigation under 10-5.525 or 8-2.404, because the type of habitat enhancement that would be implemented within the 200-foot buffer is consistent with General Plan policy and Reclamation Ordinance Sections 10-5.509 and 10-5.523 related to establishment of field margins as a component of agricultural operations. Moreover, the 200-foot band provides greater species diversity and density than a more narrow and less diverse fence row would provide.

Under current approvals, operations at the plant site would end in 2027 (4 years from now), resulting in reclamation to agriculture and open space uses that provide greater habitat values. The proposed extension would extend the plant operations at this location for an additional 20 years to 2047, with reclamation activities extending an additional 5 years through 2052. Longer periods of mining, delayed reclamation, and larger areas of disturbance will result in new and increased biological impacts. By increasing habitat enhancement north of the plant site to be more consistent with planned habitat enhancement along other project creek frontage, additional mitigation measures identified below would improve the biological resource values, create a consistent habitat corridor with a minimum width of 200 feet south of the top of the bank, and both reduce and compensate for new and increased impacts.

The applicant has requested to increase the plant processing area by more than 440 percent by combining the eastern 31.9 acres of Phase 2 and 100 acres of Phase 3 with the existing 30-acre plant site for a total of plant/processing area of 162 acres. By increasing habitat enhancement north of the plant site to be more consistent with planned habitat enhancement along other project creek frontage, additional mitigation measures identified below would improve biological resource values, create a consistent habitat corridor with a minimum width of 200 feet south of the top of the bank, and both reduce and compensate for new and increased impacts.

The 200 foot width provides biological resource values that the proposed narrower band of habitat enhancement would not provide, and, in addition, it is consistent in width with the minimum allowed creek setback area for mining that is identified in Section 10-4.429 of the Mining Code.

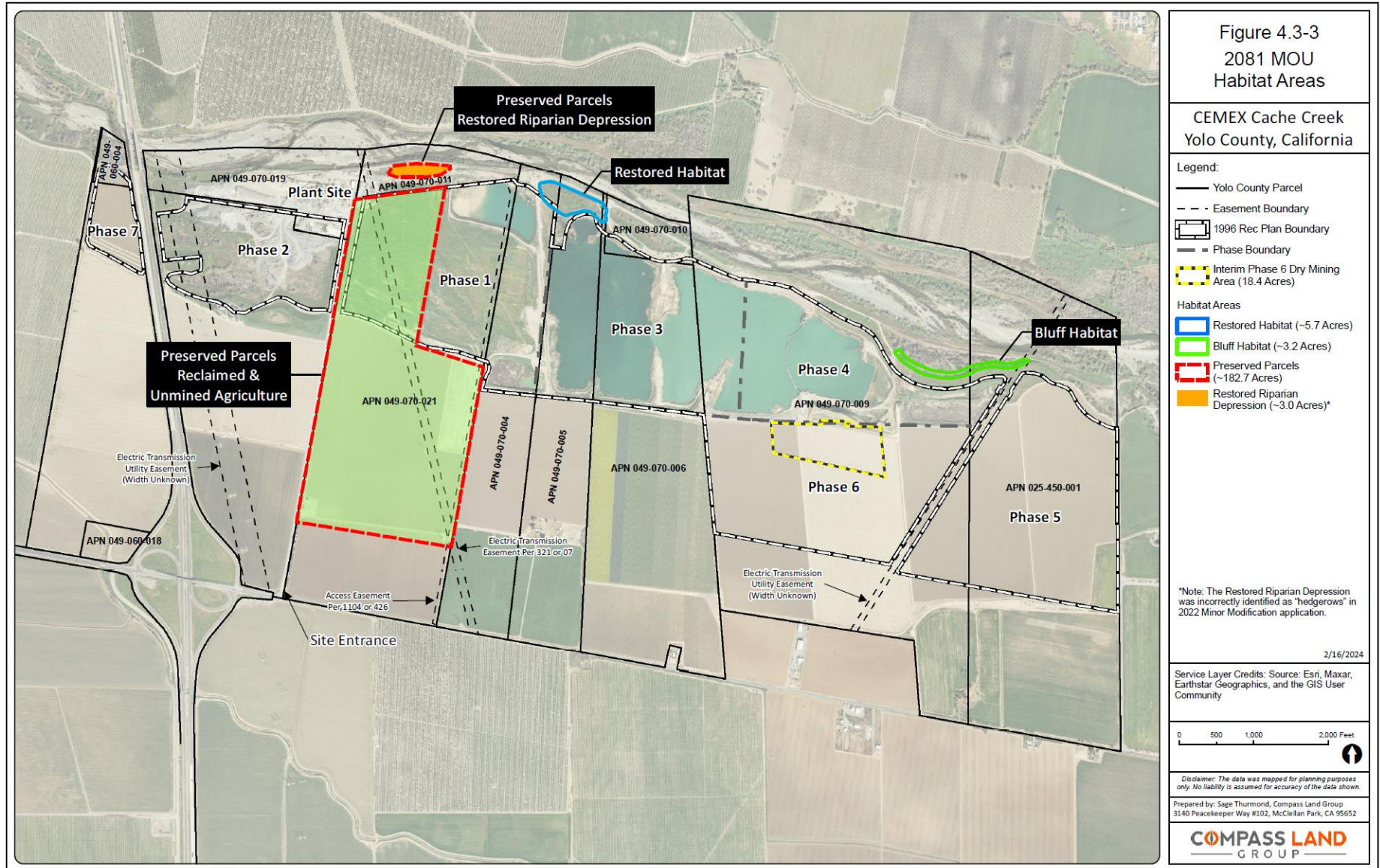
The existing lack of riparian cover in this area, combined with the narrow band of oak woodland habitat proposed under the proposed HRP, would severely limit the future habitat values for this reach of Cache Creek. This is inconsistent with other planned and proposed restoration/reclamation in the project area. Providing a wider restored area of at least 200 feet, enhanced with oak savanna and native grassland plantings, would provide a more consistent band of riparian habitat along the north edge of the site and provide a larger buffer area to accommodate future bank movement typically associated with riparian systems without posing a risk to planned agricultural use and associated improvements, such as irrigation lines and farm maintenance roads. The benefits from these improvements would help offset the new and increased biological impacts resulting from the changes in the project.

Reclaimed Lakes and Wetland Enhancement. Section 10-5.533 of the Reclamation Ordinance requires off-channel excavations that are to be reclaimed to permanent lakes to include riparian and/or wetland perimeter habitat with features such as: scalloped basin perimeters with extended peninsulas, islands, and stepped benches of various widths at approximately three (3) foot vertical intervals both above and below the groundwater level. The purposes of these treatments are to ensure conditions that allow for establishment of wetland and riparian habitat and to provide complexity to the lake design to increase their value as wildlife habitat.

The approved Reclamation Plan and HRP identified four lakes with associated perimeter habitat (see Figure 4.3-7, Habitat Restoration Plan Peninsulas Comparison). The two small lakes would have stayed in private ownership and the two larger lakes would be dedicated to the County. Condition of Approval No. 56 required at least one permanent island on one of the lakes. Floating artificial islands and submerged peninsulas described in the approved 1995/1997 HRP were required on all four lakes. Approximately 46 submerged peninsulas totaling approximately 4.6 acres were depicted along the shoreline of the four lakes. These peninsulas would provide transitional aquatic habitat and shoreline complexity.

The use of floating artificial islands was an emerging innovation at the time that was proposed in recognition of the substantial volume of sand and gravel that would be required to create additional permanent islands. Under the approved HRP the artificial islands were to be wooden structures approximately 20 by 20 feet in size and covered with gravel and sand to reduce vegetation growth (see pages 45 and 46 of the approved 1995/1997 HRP). The floating islands were to be positioned around the perimeter of each lake, generally near the end of the submerged peninsulas. Although the artificial islands may provide resting and roosting substrate for shorebirds and waterfowl, it is likely the lack of any vegetative cover and exposed condition would severely limit their habitat value. They would be tethered in place by cables and could become stranded on shore as water levels recede during the summer months. The wooden structures would likely eventually disintegrate and/or anchoring cables would break, resulting in ongoing maintenance concerns.

**Figure 4.3-3
 2081 MOU Habitat Areas**



**Figure 4.3-4
Sample Area of Proposed Hedgerow Restoration**

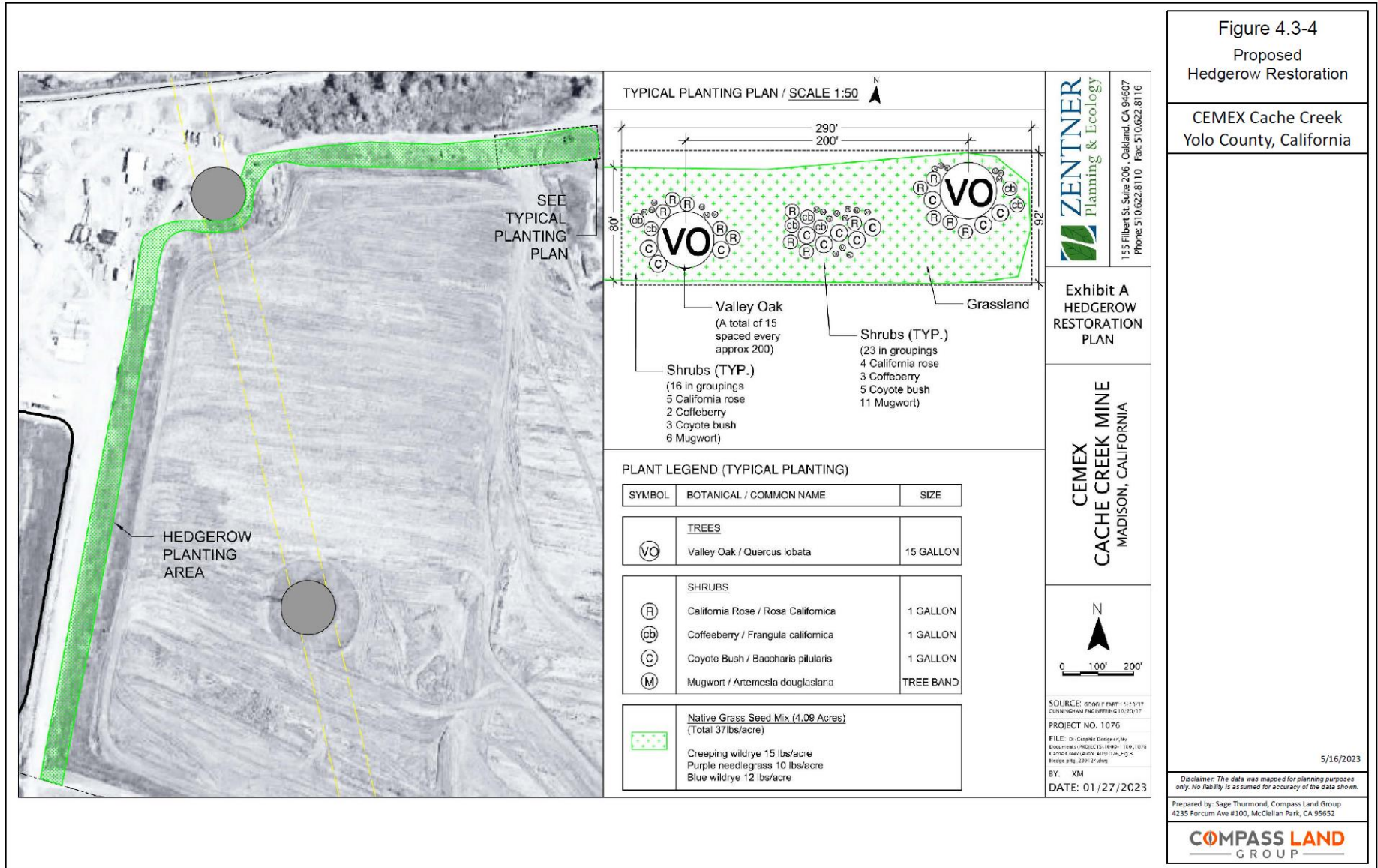
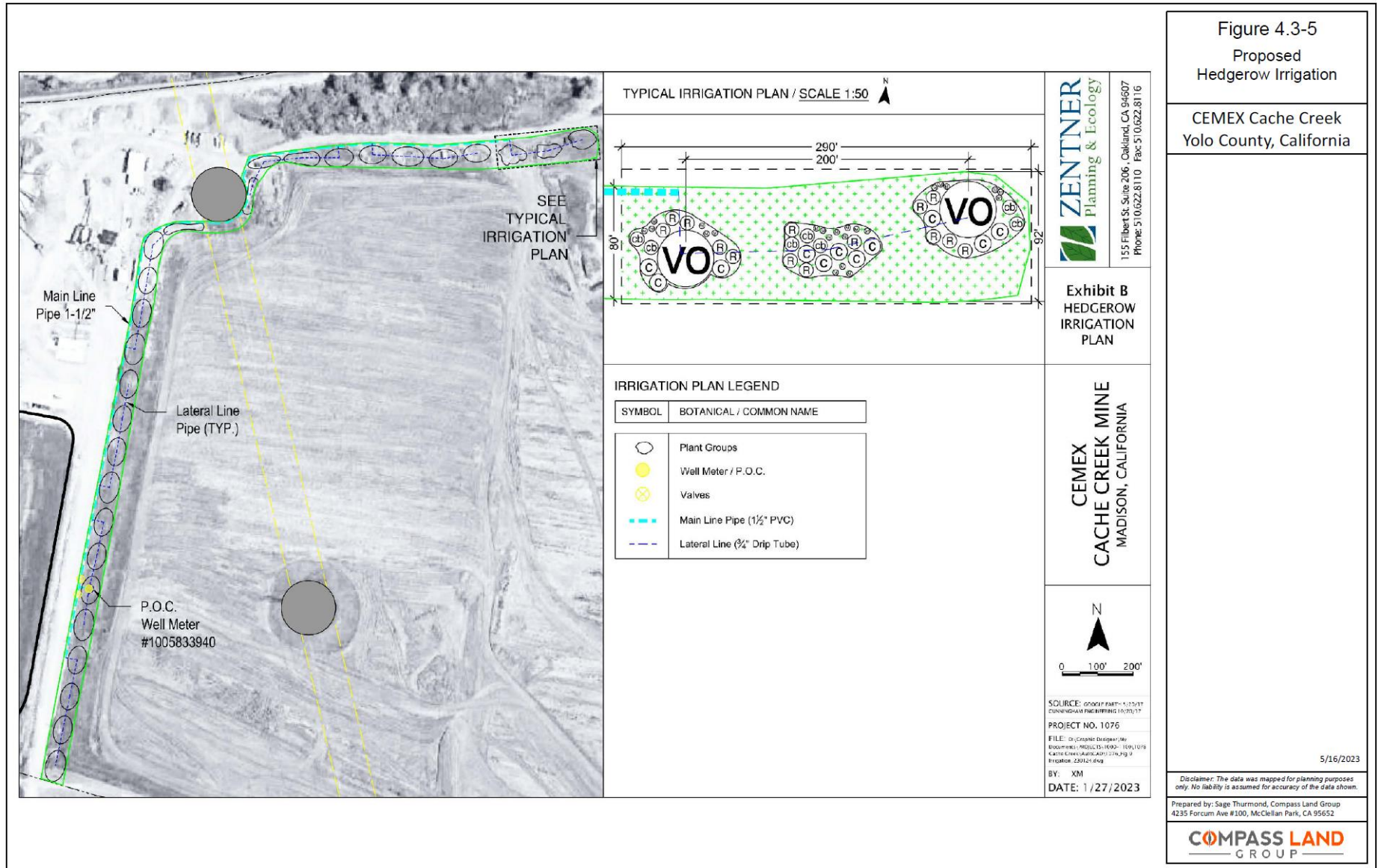
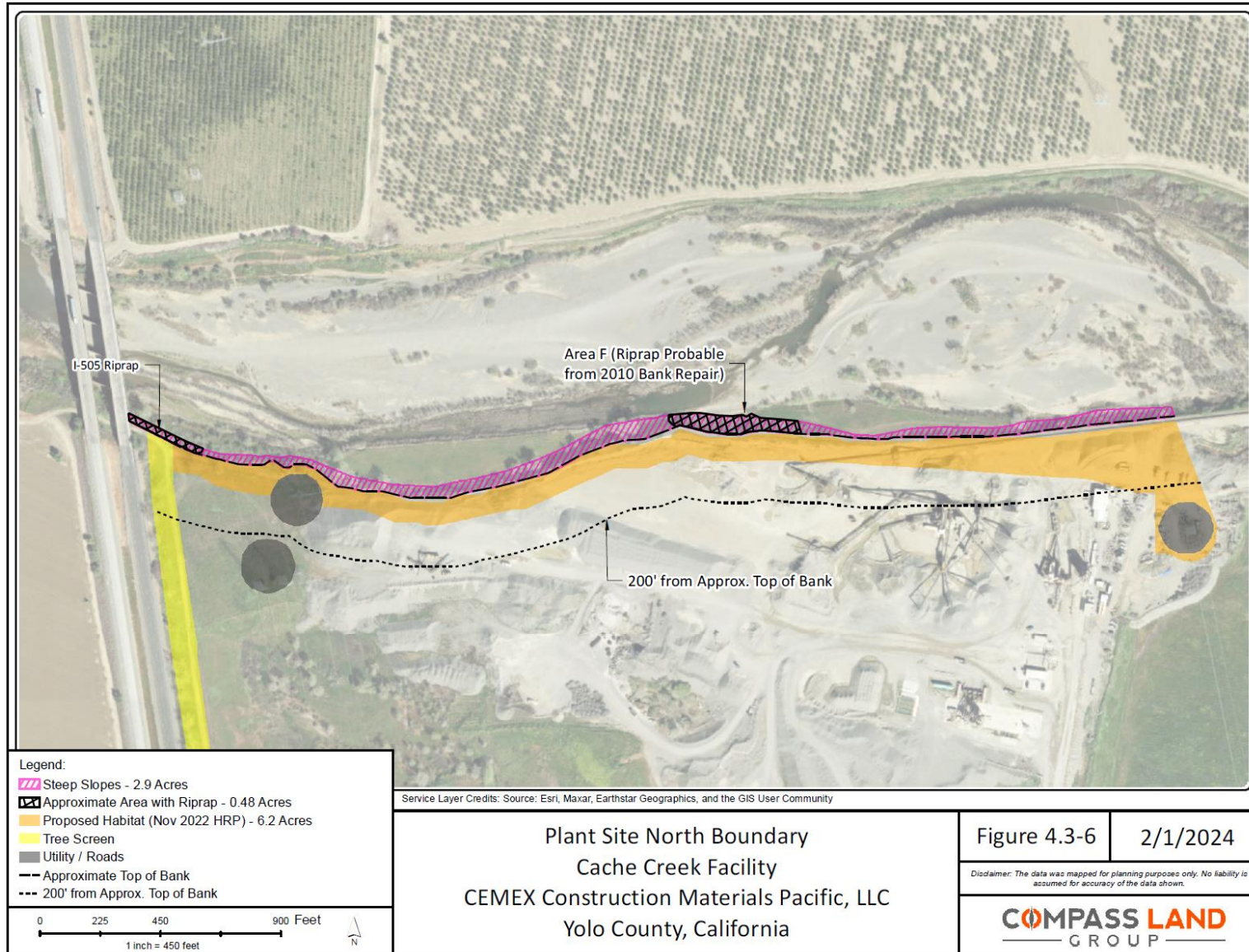


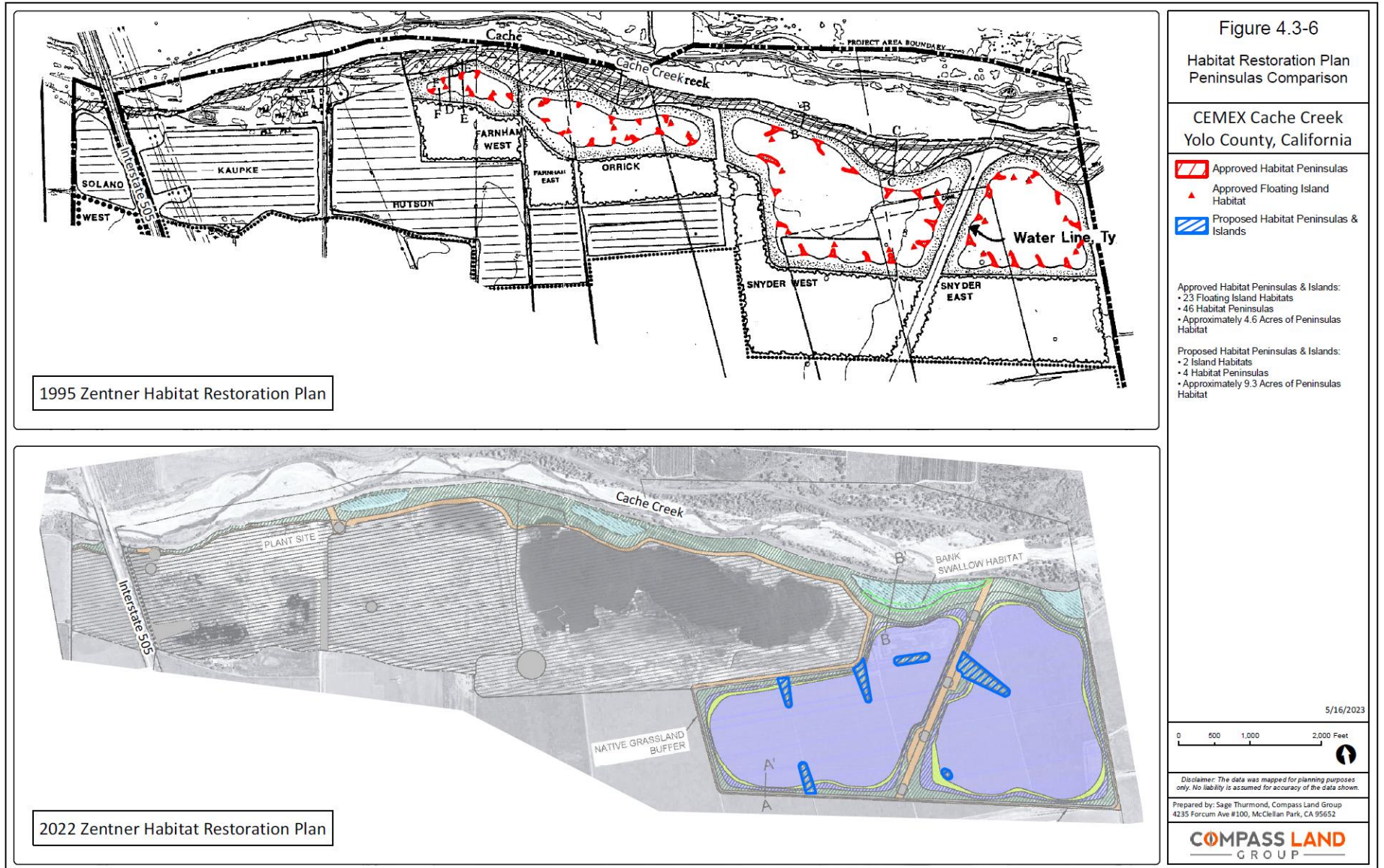
Figure 4.3-5
Sample Area of Proposed Hedgerow Irrigation



**Figure 4.3-6
 Plant Site North Boundary**



**Figure 4.3-7
 Habitat Restoration Plan Peninsulas Comparison**



The proposed design of the artificial islands could be modernized to use more hardy materials (e.g., recycled plastics) with soils and plants integrated into the design. However, use of floating islands is a relatively minor design/aesthetic element (with some water quality and habitat value) that can be considered in the future once the lakes/ponds are established and following an assessment of the need. To the extent they provide habitat value, there are other options available that would be more complimentary to other restoration efforts and provide greater value. The focus of the restoration efforts should be to restore natural systems. More fully developed perimeter vegetation would be a preferable shoreline treatment. Managing the shoreline of the lakes/ponds by planting riparian-associated trees and other vegetation would better serve the function of restoring wildlife habitat, and to a much greater extent.

The proposed Reclamation Plan and HRP eliminates the two private lakes and proposes two larger lakes that would be dedicated to the County. The scalloped peninsula shoreline treatment has been modified to include undulating shoreline grading with three large peninsulas on the westerly lake and a single peninsula on the easterly lake. The applicant has indicated it would be challenging to implement the submerged peninsulas because it is difficult to backfill to a specific slope inclination under water. Accordingly, the proposed Reclamation Plan was updated to propose four larger peninsulas for a total of 4.6 acres. This includes three peninsulas in the future Phase 5 lake and one peninsula in the future Phase 6 lake. The four peninsulas are sited to generally coincide with future dredge anchor points, from which the dredge will pivot to access the resources in the mining footprint for each phase. One permanent island is shown for each lake, although details regarding the smaller island on the east lake are not provided. The peninsulas and islands will be planted with perennial marsh, riparian woodland, and oak savannah habitat.

A comparison of design features for the reclaimed lakes, under approved and proposed conditions, is provided in Table 4.3-2 below:

Table 4.3-2: Reclaimed Lake Design Comparison

Lake Feature	Approved Reclamation/HRP	Proposed Reclamation/HRP
Number of lakes	4 (2 smaller private; 2 larger public)	2 (2 larger public)
Open Water Acreage	88 ac. west lake 49 ac. east lake <u>16 ac. two small lakes</u> 153 ac. total	103 ac. west lake <u>101 ac. east lake</u> 204 ac. total
Perimeter Habitat	27.6 ac. west lake 23.2 ac. east lake <u>40.4 ac. two smaller lakes</u> 91.2 ac. total	27.5 ac. west lake <u>33.2 ac. east lake</u> 60.7 ac. total
Peninsulas	+46 totaling 4.6 ac.	4 totaling 4.6 ac.
Permanent Islands	1 totaling 0.3 ac.	2 totaling 1.6 ac.
Artificial Islands	Yes	No
Creek Connectivity	3,740 linear feet	1,400 linear feet

As previously noted, the continuity or connectivity between the reclaimed lake perimeter habitat and the creek would be decreased by 63 percent as a result of the proposed changes to the

reclamation plan. As approved the distance in which the reclaimed lake perimeter habitat would be immediately adjacent to the creek is approximately 3,740 feet. As proposed that distance would be reduced to 1,400 feet of immediate proximity. A decrease of 2,340 feet. The proposed project would also reduce the total number of reclaimed lakes from four to two, increase the area of open water, decrease the acreage of shoreline habitat, and decrease the shoreline complexity. These changes would decrease the overall wildlife habitat values of the lakes and their associated habitat. The ratio of perimeter habitat to open water would diminish by approximately one half, from about 1:1.7 as approved (153 ac. of open water ÷ 91.2 ac. perimeter habitat = 1.7 ac.) to 1:3.4 as proposed (204 ac open water ÷ 60.7 ac. perimeter habitat = 3.4 ac.). This reduction in habitat values associated with the proposed changed reclaimed lake design would be significant without further enhancement of the lakes under the proposed project.

The proposed HRP would result in a decrease in the enhanced habitat value associated with the proposed lakes on the site, which would be in conflict with the intent of CCAP, and in particular with Section 10-5.533. Mitigation Measure 4.3-6(a-c) would ensure the achievement of intended wildlife habitat values associated with reclamation.

Conclusion

As presented above, there are proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact. These changes include: 1) changes in reclamation design that would result in less valuable reclaimed habitat; 2) reduced contiguity between future reclaimed lakes and creek habitat; 3) inconsistency with County code related to field margin habitat; 4) mining activities inconsistent with approvals; 5) delayed restoration and reclamation to hedgerows; 6) underperforming design and failed maintenance of hedgerows; 7) longer periods of mining; 8) delayed reclamation; 9) larger areas of disturbance; and 10) increases in the plant processing area

There are changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts due to creek erosion and mining activities, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level. Mitigation Measure 4.3-6a would incorporate hedgerow requirements into the HRP, and require hedgerow plantings at 300 foot intervals in native grasslands transition areas along agricultural transition areas and in native grasslands band around the future lakes in addition to the hedgerow requirements in the 2022 Minor Modification conditions of approval. Mitigation Measure 4.3-6b would require a minimum 200 feet of oak savanna and native grassland

south of top of bank and north of plant site. Mitigation Measure 4.3-6c identifies various clarifications and modifications to the proposed HRP and Reclamation Plans.

Mitigation Measure 4.3-6a

The proposed Habitat Restoration Plan shall be modified as follows:

1. *The proposed HRP shall be modified and resubmitted for staff confirmation of compliance to incorporate a new section integrating hedgerow as a restoration planting type and including descriptive text, locations for required and expanded planting, cross-sections, and elevations substantively equal to or better than the equivalent information contained in the approved 1995/1997 HRP. The HRP shall define performance standards and completion benchmarks, and identify monitoring and reporting requirements. Proposed Exhibit A, Hedgerow Restoration Plan (see Figure 4.3-4), and proposed Exhibit B, Hedgerow Irrigation Plan (see Figure 4.3-5), shall also be integrated.*
2. *Proposed Exhibit A, Hedgerow Restoration Plan, shall be modified to adjust the location and interval of woody plantings, and reference the seed mix and application rates in Table 4 of the proposed HRP. Where hedgerow treatments are required to be integrated into native grassland zones, tree and shrub plantings shall occur at minimum intervals of about 300 feet.*
3. *2022 Minor Modification Condition #4 shall be clarified as follows to reflect corrected information:*

Implement hedgerow planting to provide required vegetative cover within a continuous uninterrupted band along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2. The width of the new hedgerow planting shall match the width of the existing ~~hedgerow~~ riparian depression plantings on the north. If the PG&E powerline easement prohibits the planting of species identified for the rest of the hedgerow, alternative native species may be proposed for the powerline easement right-of-way area. The design shall be approved by the County with input from the Cache Creek Area Plan Technical Advisory Committee's Riparian Biologist, and shall reflect the modifications described in Measure 4.3-6a(1) and (2) above. ~~The applicant shall submit design plans (including proposed native species and irrigation) for County review and approval no later than September 30, 2022.~~ All approved improvements shall be implemented within 90 days of County approval.

4. *All plans, permit documents, and exhibits shall be modified to be consistent with the final approved HRP as modified by mitigation measures and/or conditions of approval.*
5. *The proposed HRP shall be modified to include hedgerow plantings integrated: (i) in the native grassland reclamation proposed for the sloped transition between unmined agricultural fields and reclaimed agricultural fields in phases 1 through 4 (shown in pink on Figure 4.3-8, Mitigation Measure 4.3-6 Expanded Hedgerows and Native Habitat Enhancement); and (ii) on the west, south, and east sides of the combined*

future reclaimed lake area within the proposed native grasslands buffer areas (shown in red on Figure 4.3-8).

6. *The minimum width of the proposed new hedgerow plantings in the agricultural transition area described in item 5(i) shall be the entire width of the transition slope. The minimum width of the hedgerow plantings around the lake area described in item 5(ii) shall be the entire width of the proposed native grassland buffer area as shown in the final approved HRP.*
7. *Proposed native habitat enhancement adjoining the creek north of Phases 1, 3, and 4 (shown in purple on Figure 4.3-8) are acceptable, as revised by other mitigation measures and/or conditions of approval.*
8. *Throughout the life of the mining and reclamation approvals, the applicant shall annually monitor and actively maintain all hedgerows.*

Mitigation Measure 4.3-6b

The proposed HRP shall be revised to expand the Oak Savanna and Native Grassland treatment to a minimum of 200 feet south of the top of bank to Cache Creek along the entire existing Plant Site and west to I-505 (Kaupke parcel) (shown in green on Figure 4.3-8).

Mitigation Measure 4.3-6c

The following modifications to the proposed HRP and Reclamation Plans are required:

1. *The proposed HRP shall be modified to:*
 - a. *Modify the size for both islands to 0.8 acres each measured above the high water elevation. Provide design details for both islands subject to review and approval by the County.*
 - b. *Both islands shall be clearly identified in mining plans, reclamation plans, and revegetation plans in the proposed HRP as permanent features.*
 - c. *Peninsulas and other modifications to shoreline treatments shall be shown on the reclamation plans.*
 - d. *The east lake shoreline shall have a minimum of three smaller peninsulas with a total acreage equal to or exceeding the acreage as proposed, designed to improve habitat complexity (see Figure 4.3-9, Lake Shorelines with Peninsulas).*
 - e. *Reclamation plans sheets and the final figures in the HRP shall be consistent. Reclamation Plan sheets shall be made consistent with HRP Figure 3, Typical Cross-Section detail.*
2. *COA #56 shall be replaced with the following:*

Characteristics of the two permanent islands and shoreline treatments shall include the following:

- a. The elevation of the island shall extend a minimum of five feet above the average high groundwater level (approximately 125-foot elevation) to prevent complete inundation during the winter months. Slopes of the island shall not exceed 3:1 above the average low groundwater level.*
- b. The channel of water separating the island from the mainland shall have a minimum distance of 20 feet and a depth reaching at least 5 feet during the average summer low groundwater level to prevent predators from wading to the island during the summer months. A temporary land-bridge to permit vehicle access and maintenance of restoration plantings on the island may be included in the design, or alternative method defined to ensure maintenance and monitoring. If land-bridge access is used, it shall be removed following completion of the minimum five-year monitoring program for the restoration effort.*
- c. The islands shall be revegetated with perennial marsh at the lowest elevations and low terrace riparian species up to the average high groundwater level, with a cover of native grassland and scattered shrubs and trees provided over the top of the island. The HRP shall ensure successful establishment of vegetative cover on the islands, which shall include installation of temporary irrigation consistent with other tree and shrub plantings.*

Significance After Mitigation:

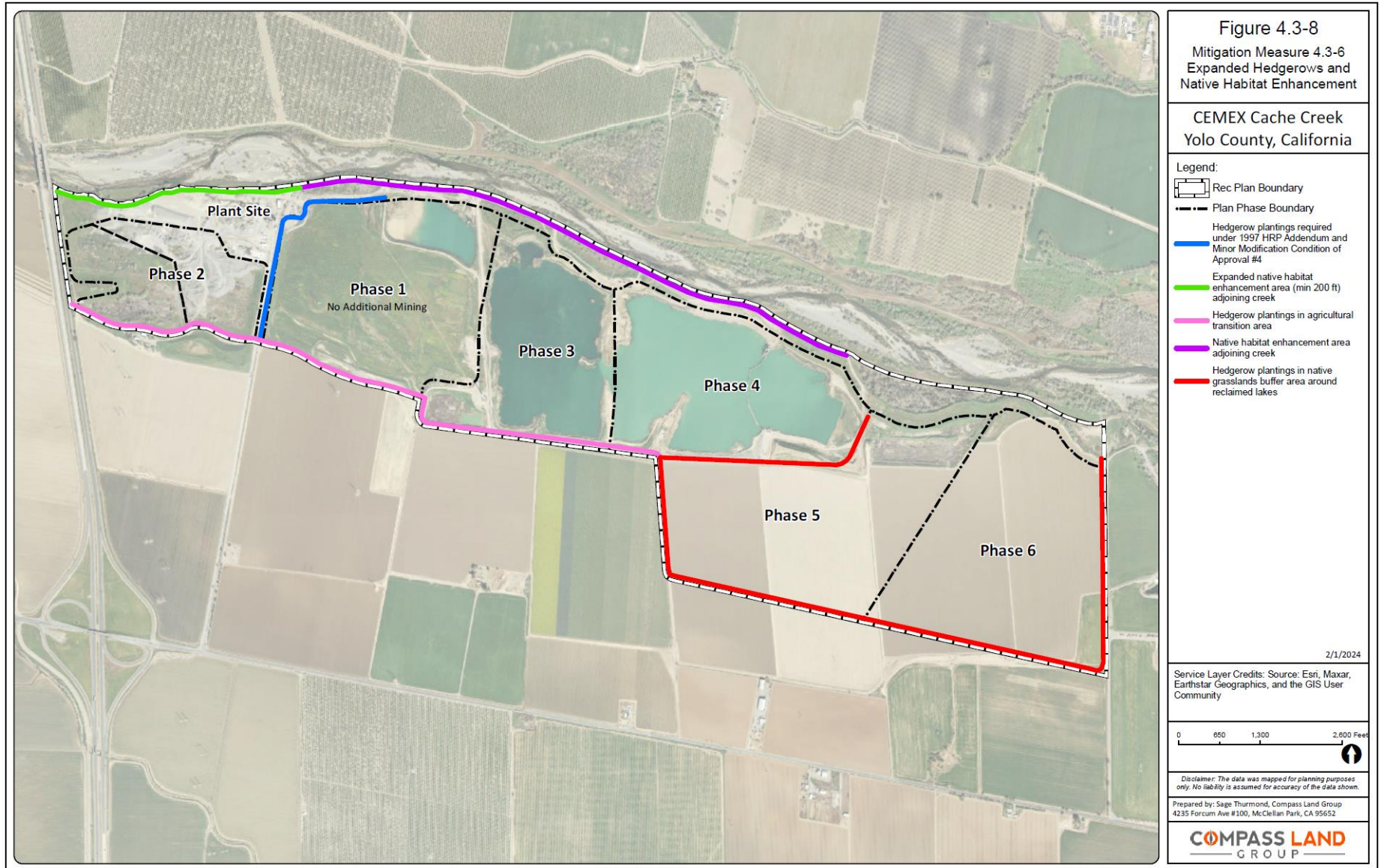
With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.3-7: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The impact would be *significant*.

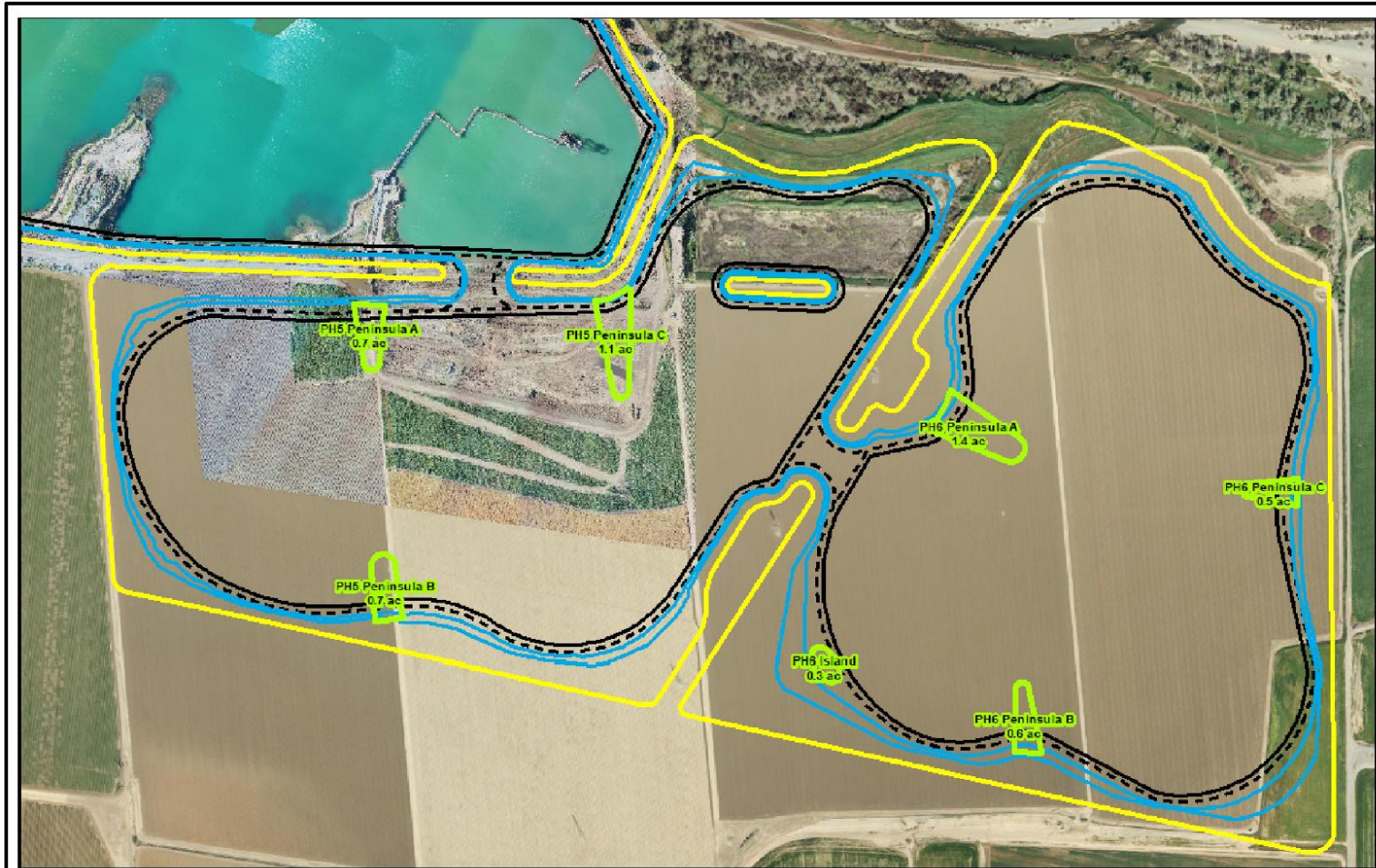
The proposed project would not substantially conflict with local policies and ordinances related to biological resources, including the 2030 Countywide General Plan and CCAP. An assessment of the hedgerows, habitat enhancement along Cache Creek, and the proposed lake reclamation is provided primarily under Impact 4.3-6. Table 4.3-3 below provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to biological resources.

The proposed HRP includes details on resoiling, restoration plantings, performance standards, monitoring and reporting, test plots, weed control, and maintenance. In general, the proposed species selection, density of plantings, rate of seed application, revegetation standards, and monitoring methods meet acceptable standards and would serve to enhance existing habitat values of the site, particularly along the Cache Creek corridor.

Figure 4.3-8
Mitigation Measure 4.3-6 Expanded Hedgerows and Native Habitat Enhancement



**Figure 4.3-9
 Lake Shorelines with Peninsulas**



Legend:

Peninsulas (~5.0 Acres)

Lake Shorelines with Peninsulas
 Cache Creek Facility
 CEMEX Construction Materials Pacific, LLC
 Yolo County, California

Figure 4.3-9

2/1/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

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There are several components of the proposed HRP that require modification in order to ensure adequacy for successful monitoring and establishment. These include:

1. Increasing the diversity of plantings in the shrub layer of the Oak Savanna Plant List (Table 3) which currently specifies only four species.
2. Providing additional controls for Noxious Grassland Species under the Weed Control Plan to address common invasive species with a moderate California Invasive Plant Council rating of Moderate, with corrective action taken to reduce their dominance and encourage native perennial species in areas of Native Grassland and Oak Savanna Understory.
3. Including of an invasive cover component in the Performance Criteria for Riparian Woodland and Oak Savannah and reduce all Final Performance Criteria for invasive cover to less than 5 percent.
4. Providing expanded Performance Standards under the Weed Control Plan to clearly define corrective actions any time target species exceed the 5 percent cover threshold.

Allowing invasive species to become established up to a 10 percent threshold before treatment is triggered allows for unnecessary dominance and adversely affects the restoration effort. A lack of defining triggers for weed abatement historically has contributed to past problems with noxious species on the site. These concerns regarding the proposed HRP represent a significant impact given the importance of successful habitat enhancement and weed control.

The proposed HRP also identifies the need for infill of cottonwood and walnut trees and removal of invasives, to enhance existing screening along I-505 (see pages 9 and 20 of the proposed HRP). This screening is required pursuant to Sections 10-4.404, 10-4.429(c), and 10-4.502(b)(1) of the County Mining Ordinance and would be achieved under the proposed HRP.

Conclusion

As presented above, there are proposed changes in reclamation for the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts related to conflicts with policies and ordinances protecting biological resources, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.3-7

The following revisions to the proposed HRP shall be implemented to expand species diversity, allow for verification of annual monitoring, and ensure control of noxious weed species as part of on-going and future maintenance:

1. *Increase the diversity of plantings in the shrub layer of the Oak Savanna to include wood rose (*Rosa californica*) (Table 3).*
2. *Define additional controls for Noxious Grassland Species under the Weed Control Plan to address common invasive species with a moderate California Invasive Plant Council (IPC) rating of Moderate, with corrective action taken to reduce their dominance and encourage native perennial species in areas of Native Grassland and Oak Savanna Understory any time estimated cover of target invasive species exceeds 5 percent.*
3. *Include an Invasive Cover component of less than 5 percent in the Performance Criteria for Riparian Woodland and Oak Savannah (Table 7) where corrective action is to be taken as part of annual maintenance any time this threshold is exceeded.*
4. *Expand the Performance Standards under the Weed Control Plan to clearly define corrective actions any time target species exceed the 5 percent cover threshold. This shall at minimum include options of mechanical or cultural (i.e., grazing) treatment on an annual basis as necessary to reduce abundance, particularly for more common invasive grass species which tend to dominate native grassland restoration areas.*
5. *Revise the proposed HRP to require update as necessary of the list of target invasive species to be monitored based on input from the TAC Riparian Biologist, to ensure that new invasive species that may colonize the site are adequately addressed as part of future monitoring and treatments.*
6. *Provide in annual reports, the GPS coordinates for test plot locations established as part of the annual monitoring effort, to allow for field inspection by the County.*
7. *Modify the notation at the bottom of the Native Grassland Buffer Plant List (Table 4) to clarify that overall species diversity shall be maintained even where substitutions may be necessary based on availability and demonstrated suitability.*

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.3-8: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The impact would be *less than significant*.

Table 4.3-3 provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to biological resources.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.3-3: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Goal CO-2 Biological Resources. Protect and enhance biological resources through the conservation, maintenance, and restoration of key habitat areas and corresponding connections that represent the diverse geography, topography, biological communities, and ecological integrity of the landscape.</p>	<p>Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project, as modified by these requirements, would be consistent with this policy.</p>
<p>Policy CO-2.1 Consider and maintain the ecological function of landscapes, connecting features, watersheds, and wildlife movement corridors.</p>	<p>The CCAP balances competing policy concerns and the project is conditioned consistent with the CCAP. Annual inspections and the County's enforcement authority ensure compliance.</p>
<p>Policy CO-2.3 Preserve and enhance those biological communities that contribute to the county's rich biodiversity including blue oak and mixed oak woodlands, native grassland prairies, wetlands, riparian areas, aquatic habitat, agricultural lands, heritage valley oak trees, remnant valley oak groves, and roadside tree rows.</p>	<p>Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project, as modified by these requirements, would be consistent with this policy.</p>

<p>Policy CO-2.4 Coordinate with other regional efforts (e.g., Yolo County HCP/NCCP) to sustain or recover special-status species populations by preserving and enhancing habitats for special-status species.</p>	<p>Consistency with the Yolo HCP/NCCP is addressed in Impact 4.3-5. The proposed project, as modified by required conditions and mitigation measures, would be consistent with this policy.</p>
<p>Policy CO-2.9 Protect riparian corridors to maintain and balance wildlife values.</p>	<p>See discussion under Impacts 4.3-2 and 4.3-6. As mitigated, the proposed project would not adversely affect the existing riparian vegetation along Cache Creek and the proposed HRP would include expansion of the extent of riparian habitat. New mitigation measures identified in this analysis ensures compliance with this policy. Thus, the proposed project would be consistent with this policy.</p>
<p>Policy CO-2.10 Encourage the restoration of native habitat.</p>	<p>Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CO-2.14 Ensure no net loss of oak woodlands, alkali sinks, rare soils, vernal pools or geological substrates that support rare endemic species. The limited loss of blue oak woodland and grasslands may be acceptable, where the fragmentation of large forests exceeding 10 acres is avoided and losses are mitigated to the extent feasible.</p>	<p>The proposed project would not significantly affect any of these habitat types. Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CO-2.17 Emphasize and encourage the use of wildlife-friendly farming practices within the County's Agricultural Districts and with private landowners, including:</p> <ul style="list-style-type: none"> • Establishing native shrub hedgerows and/or tree rows along field borders. • Protecting remnant valley oak trees. • Planting tree rows along roadsides, field borders, and rural driveways. • Creating and/or maintaining berms. • Winter flooding of fields. • Restoring field margins (filter strips), ponds, and woodlands in non-farmed areas. • Using native species and grassland restoration in marginal areas. • Managing and maintaining irrigation and drainage canals to provide habitat, support native species, and serve as wildlife movement corridors. • Managing winter stubble to provide foraging habitat. • Discouraging the conversion of open ditches to underground pipes, which could adversely affect giant garter snakes and other wildlife that rely on 	<p>Impact 4.3-6 addresses potential impacts related to hedgerows. Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>

<p>open waters.</p> <ul style="list-style-type: none"> • Widening watercourses, including the use of setback levees. 	
<p>Policy CO-2.30 Promote native perennial grass habitat restoration and controlled fire management in grazing lands to reduce invasive species cover and enhance rangeland forage.</p>	<p>Native grasslands would be installed as part of habitat restoration at the margins of reclaimed agricultural fields and in areas of oak savannah habitat. As mitigated, the proposed HRP includes performance standards and monitoring to ensure successful establishment and no conflicts with this policy would occur.</p>
<p>Policy CO-2.34 Recognize, protect and enhance the habitat value and role of wildlife migration corridors for the Sacramento River, Putah Creek, Willow Slough, the Blue Ridge, the Capay Hills, the Dunnigan Hills and Cache Creek.</p>	<p>See Impacts 4.3-4 and 4.3-6. As mitigated, the proposed mining and reclamation activities would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. All proposed off-channel excavations would be located 200 feet or more from Cache Creek. Thus, the proposed project would be consistent with this policy.</p>
<p>Policy CO-2.36 Habitat preserved as a part of any mitigation requirements shall be preserved in perpetuity through deed restrictions, conservation easement restrictions, or other method to ensure that the habitat remains protected. All habitat mitigation must have a secure, ongoing funding source for operation and maintenance.</p>	<p>The CCAP is in alignment with this policy and is self-funded through per-ton fees on aggregate mining. This project would be consistent with the CCAP.</p>
<p>Policy CO-2.38 Avoid adverse impacts to wildlife movement corridors and nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds). Preserve the functional value of movement corridors to ensure that essential habitat areas do not become isolated from one another due to the placement of either temporary or permanent barriers within the corridors. Encourage avoidance of nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds) during periods when the sites are actively used and that nursery sites which are used repeatedly over time are preserved to the greatest feasible extent or fully mitigated if they cannot be avoided.</p>	<p>See Impacts 4.3-4 and 4.3-6. As mitigated, the proposed mining and reclamation activities would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. All proposed off-channel excavations would be located 200 feet or more from Cache Creek. Thus, the proposed project would be consistent with this policy.</p>
<p>Policy CO-2.41 Require that impacts to species listed under the State or federal Endangered Species Acts, or species identified as special-status by the resource agencies, be avoided to the greatest feasible extent. If avoidance is not possible, fully mitigate impacts consistent with applicable local, State, and Federal requirements.</p>	<p>See Impacts 4.3-1 and 4.3-6. Mitigation measures are identified to reduce potential impacts to special-status species. The proposed project would comply with these measures and this policy.</p>
<p>Policy CO-2.42 Projects that would impact Swainson's hawk foraging habitat shall participate in the Agreement Regarding Mitigation for Impacts to Swainson's Hawk Foraging Habitat in Yolo</p>	<p>See Impact 4.3-1. Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the</p>

<p>County entered into by the CDFG and the Yolo County HIP/NCCP Joint Powers Agency, or satisfy other subsequent adopted mitigation requirements consistent with applicable local, State, and federal requirements.</p>	<p>proposed project would be consistent with this policy.</p>
<p>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.</p>	<p>The CCAP is in alignment with this policy and is self-funded through per-ton fees on aggregate mining. This project would be consistent with the CCAP.</p>
<p>Policy CO-5.8 Support efforts to reduce the accumulation of methyl mercury in fish tissue in Cache Creek and the Delta, as well as the consumption of fish with high levels of methyl mercury.</p>	<p>Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>
<p>Off-Channel Mining Plan</p>	
<p>Goal 6.2-1 Provide for a diverse, native ecosystem within the OCMP area that is self-sustaining and capable of supporting native wildlife and invertebrate species.</p>	<p>The project, as mitigated, includes reclamation to habitat and open space uses consistent with this goal.</p>
<p>Action 6.4-2 Provide for the development of shallow areas along reclaimed off-channel excavations that extend below the groundwater level, to create wetland and riparian habitat. (See Section 10-5.529 of the Reclamation Ordinance.)</p>	<p>The project, as mitigated, includes reclamation to habitat consistent with this action.</p>
<p>Action 6.4-3 Mitigate for short-term and long-term loss of agricultural land and habitat pursuant to applicable County requirements and CEQA. Comply with the Yolo HCP/NCCP for species covered by that Plan. For non-covered species for which impacts may occur, ensure compliance with appropriate measures in site-specific biological assessments required under the OCMP and CCRMP, in compliance with the State Fish and Wildlife Code, Migratory Bird Treaty Act, and other applicable regulations, plans and programs, as appropriate.</p>	<p>See Impacts 4.3-1, 4.3-5, and 4.3-6. Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>
<p>Action 6.4-5 Include provisions to enhance habitat for special status species in restoration components of reclamation plans, where feasible. (See Section 10-5.523 of the Reclamation Ordinance.)</p>	<p>The project includes reclamation to habitat consistent with this action.</p>
<p>Action 6.4-7 Restore riparian habitat throughout the planning area, wherever appropriate. However, revegetative efforts should be primarily focused on implementing recommendations described in the Technical Studies and the subsequent Restoration Recommendations incorporated into the CCRMP. Integrate off-channel and in-</p>	<p>The project includes reclamation to habitat consistent with this action. Action 6.4-7 of the OCMP, and Actions 4.4-10 and 4.4-11 of the CCRMP require alignment with the Yolo County CCAP Parkway Plan. The net gains proposed by the applicant are in general alignment with the Parkway Plan. New proposed dedication of land ensuring connection to the Millsap Property satisfy</p>

<p>channel revegetation plans with the goal of reducing fragmentation by expanding and connecting existing habitat patches, optimizing restoration planning in alignment with the Parkway Plan, and supporting future funding proposals. Ensure that elements such as soils, drainage, slopes, and habitat types complement one another in a coordinated effort.</p>	<p>identified opportunities and constraints. The Parkway Plan also identifies lake recreation, informal parking, trails, and pathways with which the applicant's net gains proposal is consistent.</p>
<p>Action 6.4-8 Include native-planted hedgerows and other vegetated buffers between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.</p>	<p>Impact 4.3-6 addresses potential impacts related to hedgerows. Mitigation measures are identified to ensure compliance with these and other actions and policies that call for establishment of hedgerows as part of habitat restoration. Therefore, the proposed project would be consistent with this policy.</p>
<p>Cache Creek Resources Management Plan</p>	
<p>Goal 4.2-1 Provide for a diverse, native riparian ecosystem within the CCRMP area that is self-sustaining and capable of supporting native wildlife.</p>	<p>As mitigated, the project includes reclamation to habitat consistent with this goal.</p>
<p>Objective 4.3-2 Establish conditions to encourage the development of a variety of natural riparian habitat types within the CCRMP area in order to support biological resources associated with Cache Creek.</p>	<p>As mitigated, the project includes reclamation to habitat consistent with this objective.</p>
<p>Action 4.4-5 Establish a series of wildlife reserves (see Figure 9) to provide core areas for maximizing wildlife and fish habitat, to help protect areas of high-quality habitat from future degradation, and to provide source areas and wildlife nurseries from which native plants and wildlife can colonize other reaches of the creek. Wildlife reserves should emphasize the preservation of high-quality existing habitat, areas with high species diversity, areas supporting unique species or biotic communities, and habitat for rare, threatened, and endangered species.</p>	<p>The project, as mitigated, includes reclamation to habitat consistent with this action.</p>
<p>Action 4.4-6 Favor projects that establish native woody vegetation over emergent wetlands in appropriate areas within the planning area. Riparian forest and scrub habitats have largely disappeared regionally and are much more difficult to reestablish than are emergent wetland habitats. Emergent wetlands can also be established in a greater range of environmental conditions, whereas riparian woodlands require specific considerations in order to thrive.</p>	<p>See Impacts 4.3-6 and 4.3-7. As mitigated, the project includes reclamation to habitat consistent with this action.</p>
<p>Action 4.4-10 Through development agreements with mining operations, require integration of in-channel revegetation plans in order to reduce fragmentation</p>	<p>Modifications to the existing Development Agreement would occur with approval of the proposed project. The applicant has proposed modified and additional net gains that are</p>

<p>by expanding and connecting existing habitat patches, optimize restoration planning, and support future funding proposals. Ensure that elements such as soils, drainage, slopes, and habitat types complement one another in a coordinated effort. Coordinate in-channel habitat areas with proposed wildlife mitigation and "net gain" established as a part of the off-channel mining operations in order to create a larger riparian habitat area. Require consistency with the Parkway Plan.</p>	<p>described in Chapter 3.0, Project Description. The net gains proposed by the applicant are in general alignment with the Parkway Plan. New proposed dedication of land ensuring connection to the Millsap Property satisfy identified opportunities and constraints. The Parkway Plan also identifies lake recreation, informal parking, trails, and pathways with which the applicant's net gains proposal is consistent.</p>
<p>Action 4.4-11 Work with the aggregate industry to achieve multiple benefits, whereby habitat developed as a part of a reclamation plan may be dedicated for preservation to offset development projects elsewhere. Coordinate this effort with implementation of the Parkway Plan and the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).</p>	<p>The proposed project does not interfere with achievement of this action. As mitigated, the project includes reclamation to habitat consistent with this action. Action 6.4-7 of the OCMP, and Actions 4.4-10 and 4.4-11 of the CCRMP require alignment with the Yolo County CCAP Parkway Plan. The net gains proposed by the applicant are in general alignment with the Parkway Plan. New proposed dedication of land ensuring connection to the Millsap Property satisfy identified opportunities and constraints. The Parkway Plan also identifies lake recreation, informal parking, trails, and pathways with which the applicant's net gains proposal is consistent.</p>
<p>Action 4.4-12 Recommended planting procedures and materials, soil amendments and stabilizers, and appropriate species and planting densities for marshland, oak woodland, and riparian woodland restoration efforts should be performance based. Variations from these guidelines shall be acceptable if alternative restoration plans have been prepared by a qualified biologist and reviewed by the TAC, consistent with the policies of the CCRMP.</p>	<p>Impacts 4.3-6 and 4.3-7 analyzes the adequacy of the proposed HRP and identifies mitigation measures to improve performance. Input from the TAC riparian biologist has been received as input into this assessment.</p>
<p>Action 4.4-13 Avoid disturbance to important wildlife habitat features such as nest trees, colonial breeding locations, elderberry shrubs, and essential cover associated with riparian forest and oak woodland habitat. This should include sensitive siting of maintenance access and recreational facilities away from these features in accordance with the Migratory Bird Treaty Act and other applicable regulations.</p>	<p>Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with this policy while balancing other related policies and programs. Therefore, the proposed project would be consistent with this policy.</p>
<p>Off-Channel Surface Mining Ordinance</p>	
<p>Section 10-4.418 All surface mining operations shall be consistent with applicable components of the Yolo Habitat Conservation Plan/ Natural Community Conservation Plan (HCP/NCCP).</p>	<p>Consistency with the Yolo HCP/NCCP is addressed in Impact 4.3-5. The proposed project would be consistent with this policy.</p>
<p>Section 10-4.429(f). Setbacks (f) Off-channel excavations shall be set back a minimum of twenty-five (25) feet from riparian</p>	<p>The proposed off-channel excavations would be setback well over the minimum 25 feet from the nearest riparian vegetation. Thus, the proposed</p>

<p>vegetation.</p> <p>Section 10-4.436 Existing vegetation and habitat to be retained shall be enclosed by temporary fencing to restrict access, protect against damage and/or provide buffers to reduce the impact of dust. Temporary fencing shall be a minimum of four (4) feet high. The disturbance of riparian forest or oak woodland vegetation, including identified off-channel vegetation, should be avoided if possible.</p> <p>Replacement habitat and plantings shall be established where complete avoidance is not possible, according to a habitat restoration plan prepared by a qualified biologist, consistent with the goals of this plan.</p>	<p>project would comply with this regulation.</p> <p>Controls would be implemented to protect sensitive habitat from construction activities. The project would comply with all applicable requirements related to fencing of vegetation to be retained and providing replacement where avoidance is infeasible. Therefore, the proposed project would comply with this regulation.</p>
<p>Section 10-4.440 Avoid disturbance to important wildlife habitat features such as bird nesting trees, colonial breeding locations, elderberry host plants for Valley Elderberry Longhorn Beetle, and mature riparian forest and oak woodland habitat. This shall include sensitive siting of haul roads, trails, and recreational facilities away from these features. Suitable habitat for special-status species shall be protected and enhanced, or replaced as a part of mitigation plans prepared by a qualified biologist where necessary, and through compliance with the Yolo HCP/NCCP for special-status species covered by that Plan. Mining and reclamation activities shall be performed in accordance with the State Fish and Wildlife Code, Migratory Bird Treaty Act, and other applicable regulations to protect bird nests when in active use.</p> <p>Native-planted hedgerows and/or other vegetated buffers shall be included between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.</p>	<p>Refer to Impact 4.3-1 for a discussion of potential impacts to special-status species, including VELB. Mitigation measures are included to reduce potential impacts to special-status species. Impact 4.3-6 addresses potential impacts related to hedgerows. Prior conditions of approval, mitigation measures, and new mitigation measures identified in this analysis, ensure compliance with applicable requirements. Therefore, the proposed project would comply with this regulation</p>
<p>Section 10-4.502(b)(1) A biological inventory and analysis to evaluate the on-site habitat value of the proposed mined area, as well as the potential impacts to special-status species and sensitive natural communities, both on-site and within the immediate area. The analysis shall propose appropriate measures to reduce any potential adverse impacts to special-status species or significant suitable habitat, and shall ensure</p>	<p>An updated biological resources survey, compliant with these requirements, was provided for this project and reviewed as part of this Draft SEIR. The proposed HRP generally addresses species suitability for restoration plantings, weed control, and irrigation. The impact analysis under Impact 4.3-6 and 4.3-7 analyzes the adequacy of the proposed HRP and identifies mitigation measures to improve performance. A wetland delineation was prepared for the site and impacts on regulated</p>

<p>compliance with the Yolo HCP/NCCP, California Fish and Game Code, Migratory Bird Treaty Act, and other applicable regulations, plans and programs. The analysis shall also include a wetland delineation study for any potential on-site wetlands, and shall provide adequate mitigation and appropriate authorizations from regulatory agencies, where required. If landscaping is proposed to screen the surface mining operations from adjoining public rights-of-way or public and private lands, the biological analysis shall include an evaluation of the feasibility of the species, weed control, and irrigation methods to be used.</p>	<p>waters is reviewed under Impact 4.3-3. The proposed HRP acknowledges the need for enhanced screening along I-505. The proposed project would comply with these regulations.</p>
<p>Reclamation Ordinance</p>	
<p>Section 10-5.509 Fence Row Habitat Where fence row or field margin habitat previously existed, reestablish similar habitat as part of reclamation to agricultural use to replace and improve the wildlife habitat value of agricultural lands, allowing for the reestablishment of scattered native trees, shrubs, and ground covers along the margins of reclaimed fields. Reestablished habitat can be located in areas other than where it occurred originally. Restoration plans shall specify ultimate fence row or field margin locations, identify planting densities for trees and shrubs, and include provisions for monitoring and maintenance to ensure establishment. Restoration plans should be reviewed and approved by the TAC.</p>	<p>Impact 4.3-6 addresses potential impacts related to hedgerows. Mitigation measures are identified to ensure compliance with these and other actions and policies that call for establishment of hedgerows as part of habitat restoration. The proposed project would comply with these regulations.</p>
<p>Section 10-5.514 All reclamation plans shall be consistent with applicable components of the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).</p>	<p>Consistency with the Yolo HCP/NCCP is addressed in Impact 4.3-5. As mitigated, the proposed project would be consistent with this regulation.</p>
<p>Section 10-5.515 Proposed habitat restoration or mitigation plans for lands within the OCMP area shall be sent to the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and other interested parties for review and comment through the CEQA process as applicable, to ensure that the projects do not conflict with other existing habitat enhancement efforts.</p>	<p>The proposed Reclamation Plan and HRP are summarized in Chapter 3, Project Description. This Draft SEIR will be circulated to these and other interested parties for review and comment. Thus, the project would be consistent with this regulation.</p>
<p>Section 10-5.523 Site-specific planting plans shall be developed by a qualified biologist for proposed habitat reclamation projects. Restoration components of reclamation plans shall include provisions to enhance habitat for special-status species, where feasible.</p> <p>Native-planted hedgerows and other vegetated buffers shall be included between restored</p>	<p>The proposed HRP includes details on restoration plantings. Impact 4.3-6 addresses potential impacts related to hedgerows. Mitigation measures are included to ensure compliance with these and other actions and policies that call for establishment of hedgerows as part of habitat restoration. proposed project would comply with these regulations.</p>

<p>habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as harbors for predators and insect pests. These buffers will also reduce the noise, dust, and spraying generated by agricultural operations, in addition to providing valuable pollinator resources that in turn could enhance agricultural production.</p>	
<p>Section 10-5.533 Off-channel excavations that are proposed to be reclaimed to permanent lakes shall include riparian and/or wetland habitat. The creation of riparian and or wetland habitat along the perimeter of permanent lakes shall include appropriate features such as: scalloped basin perimeters with extended peninsulas, islands, and stepped benches of various widths at approximately three (3) foot vertical intervals both above and below the groundwater level. Where wetlands are not proposed, either grassland and/or woodland habitat, or agricultural fields separated from the lake by a berm, shall be established using only native species in order to provide continuous habitat value around the permanent lakes.</p>	<p>Enhancement to proposed shoreline habitat is addressed in Impact 4.3-6. Mitigation measures are identified related to enhancement of the permanent lakes to ensure compliance with this regulation.</p>

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4.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

4.4.1 INTRODUCTION

This Cultural Resources and Tribal Cultural Resources section of the Draft SEIR evaluates the cultural resources known to occur or potentially occur within the proposed project site and area and assesses the effects of the proposed project on the cultural and Tribal Cultural Resources of the County. Please note that per the 2018 CEQA Guidelines revisions, the review of paleontological resources, previously in the 1996 EIR cultural resources section, is included in Section 4.5, Geology, Mineral Resources and Paleontology in this Draft SEIR. Information for this section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR,⁴ and the following project-specific reports and documentation:

- ECORP Consulting, Inc., Confidential Cultural Resources Records Search and Literature Review for the CEMEX Mining and Reclamation Plan Permit Amendment Supplemental Environmental Impact Report, Yolo County, California, July 16, 2021
- Tribal consultation record, pursuant to Assembly Bill (AB) 52

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of proposed project. The following comments were submitted by the Native American Heritage Commission (NAHC) in a letter dated March 1, 2021, and the Yocha Dehe Wintun Nation Tribe in a letter dated March 10, 2021. Responses are provided in *italics*. NOP comment letters are included in Appendix B of this Draft SEIR.

- Consultation with CA Native American tribes.

Subsection 4.4.3, below, describes compliance with AB 52 and identifies the results of consultation.

- Impacts to known and unknown cultural and Tribal Cultural Resources.

Table 4.4-1 in subsection 4.4.2 below describes potential impacts to known and unknown cultural and Tribal Cultural Resources.

The following subsections describe the existing cultural and Tribal Cultural Resources setting of the County and specifically in the lower Cache Creek area, the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

changes in the project and/or the circumstances under which the project will be undertaken, new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.4.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes updated information that has become available since those reports were completed.

General Information on Cultural Resources

Cultural resources include prehistoric archaeological sites, historic archaeological sites, and historic structures, and generally consist of artifacts, food waste, structures, and facilities made by people in the past. Prehistoric (pre-contact) archaeological sites are places that contain the material remains of activities carried out by the native population of the area (Native Americans) prior to the arrival of Europeans in southern California. Artifacts found in prehistoric sites include flaked stone tools such as projectile points, knives, scrapers, drills, and the resulting waste flakes from tool production; ground stone tools such as manos, metates, mortars, pestles for grinding seeds and nuts; bone tools such as awls ceramic vessels or fragments; and shell or stone beads. Prehistoric features include hearths or rock rings bedrock mortars and milling slicks, rock shelters, rock art, and burials.

Places that contain the material remains of activities carried out by people during the period when written records were produced after the arrival of Europeans are considered historic archaeological sites. Historic archaeological material usually consists of domestic refuse, for instance bottles, cans, ceramics, and food waste, disposed of either as roadside dumps or near structure foundations. Archaeological investigations of historic-period sites are usually supplemented by historical research using written records.

Historic structures include houses, garages, barns, commercial structures, industrial facilities, community buildings, flood control facilities, bridges, and other structures and facilities that are more than 50 years old. Historic structures may also have associated archaeological deposits, such as abandoned wells, cellars, and privies, refuse deposits, and foundations of former outbuildings.

Tribal Cultural Resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe, which meet specific definitions in state law (PRC Section 21047[a]). While these may share the same forms and characteristics of cultural resources, these resources have special meaning to Native American tribes. They may also take other forms that do not satisfy the definition of cultural resources or archaeological sites. These can include traditional plant gathering areas, locations used for ritual or spiritual practice, lines of sight, or other areas of sacred space.

Description of Regional Environment

Regarding cultural resources, the regional environment has not changed significantly since the 1996 EIR. As noted in that document, Cache Creek is located within the territory once inhabited

by Patwin people. The Patwin were nonagricultural people living on high ground next to watercourses in the lower valleys, in an area with abundant game and other food sources. Their subsistence was based on hunting, fishing, and gathering of acorns, berries, and plants (e.g., tule roots, bulbs, buckeyes). Villages were often located along rivers and drainages forming a tribelet. The tribelet consisted of one primary village linked to several satellite villages, through shared territory. The Patwin population declined dramatically in the first years of contact with Europeans.

The European presence in the area intensified under Mexican control with the establishment of the mission system and the grant of large parcels of land to Mexicans and Americans during the 1840s. During the 1850s, agriculture started in the area, and the valley of Cache Creek became a center of farming and stock raising. Early agriculture in the area focused primarily on stock raising, due to the high prices paid for meat during the Gold Rush years, but also included grain cultivation. The Cache Creek Valley was one of the first areas in the state to develop irrigated agriculture. Historic-period cultural resources include archaeological remains representing historical homesteading, ranching and agriculture, mining, town, and urban sites, all of which took place in the Cache Creek corridor.

Description of Local Environment

Similar to the regional environment, there have been no significant changes to the local cultural resources setting. The 1996 EIR described a 1978 survey for cultural resources conducted by Archaeological Consulting and Research Services, Inc. (ACRS) for the areas along the southern bank of Cache Creek. The areas surveyed encompassed roughly the northern half of the CEMEX project site. During this survey, the ACRS team discovered and recorded an archaeological site (CA-YOL-69) consisting of an oval-shaped area of approximately 300 meters north-south by 150 meters east-west. During the surface survey of this site, ACRS staff found chert and obsidian cores, as well as ground stone fragments, burned bone, shell fragments, firecracked rocks, obsidian flakes and scrapers, clam disk beads, animal bone, pestles, and a Haliotis pendant all associated with CA-YOL-69. Subsequently, other, more recent surveys or studies were conducted in 1993, 1996, 2002, and 2004 by Holman and Associates, and in 2013 by Janine Origer and Eileen Barrow. Collectively, these studies include all of the areas subject to this Draft SEIR. The only recorded site, CA-YOL-69, was subjected to data recovery and total removal through implementation of Mitigation Measure 4.11-2a (Condition of Approval No. 74) of the 1996 EIR, and the contents of the site and the spoils were reburied immediately.

4.4.3 REGULATORY CONTEXT

Since the 1996 EIR was certified, many of the applicable laws and regulations have continued to evolve. The following is a description of the current federal, State, and local environmental laws and policies that are relevant to the review of cultural and Tribal Cultural Resources under the CEQA process.

Federal Regulations

As noted in the 1996 EIR and CCAP Update EIR, on the Federal level, Section 106 of the National Historic Preservation Act of 1966 (NHPA, 16 U.S.C.) and the National Environmental Policy Act of 1969 (NEPA, 42 U.S.C.) regulate the treatment of cultural resources.

State Regulations

The following are new or revised State environmental laws and policies relevant to cultural and Tribal Cultural Resources.

CEQA

CEQA applies to all discretionary projects undertaken or subject to approval by public agencies. Under the provisions of CEQA, “a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.”

CEQA Guidelines Section 15064.5(a) defines an “historical resource” as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources;
- Listed in a local register of historical resources (as defined at Public Resources Code (PRC) Section 5020.1(k));
- Identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code; or determined to be an historical resource by a project’s lead agency (CCR Title 14(3) Section 15064.5(a)).

An historical resource consists of:

“Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.... Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” CEQA Guidelines Section 15064.5(a)(3).

In accordance with CEQA Guidelines Section 15064.5(b), a substantial adverse change in the significance of a historical resource is a significant effect on the environment. A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

In addition to historically significant resources, which can include archeological resources that meet the criteria listed above, CEQA also requires consideration of “unique archaeological resources.” If a site meets the definition of a unique archaeological resource, the site must be treated in accordance with the provisions of PRC Code Section 21083.2. Under PRC20183.2(g), an archaeological resource is considered “unique” if it:

- 1) Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
- 2) Can provide information that is of demonstrable public interest and is useful in

addressing scientifically consequential and reasonable research questions;

- 3) Has a special kind or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- 4) Is at least 100 years old and possesses substantial stratigraphic integrity; or
- 5) Involves important research questions that can be answered only with archaeological methods.

California Assembly Bill 52

Effective July 1, 2015, Assembly Bill (AB) 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, PRC Section 21073 defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are one of the following:
 - Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria (a) and (b) also meet the definition of an Historical Resource under CEQA, a TCR may also require additional consideration as an Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their Tribal Cultural Resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a

significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Therefore, on March 6, 2018, at the time of receipt of a permit amendment application, the County notified the following tribes of the opportunity to consult under AB 52:

- James Kinter – Yocha Dehe Wintun Nation
- Charlie Wright – Cortina Rancheria Band of Wintun Indians of California
- Randy Yonemura – Lone Band of Miwok Indians
- Antonio Ruiz Jr. – Wilton Rancheria
- Michael Mirelez – Torres Martinez Desert Cahuilla Indians
- Gene Whitehouse – United Auburn Indian Community

Pursuant to PRC Section 21080.3.1(d), tribes were afforded 30 days to respond to request consultation. On March 20, 2018, the County received a response from Marilyn Delgado of the Yocha Dehe Wintun Nation (YDWN) requesting consultation, additional project information, and documentation for the project. Ms. Delgado also requested that the tribe be notified in the event of any unanticipated discoveries.

On February 26, 2021, the County issued a public Notice of Preparation and Notice of Scoping Meeting for the Draft EIR. The NOP included additional project details and a map of the proposed amendments. In a letter to the County dated March 10, 2021, the tribe responded to state that the project is located within its aboriginal territories, and that the project could impact known cultural resources. The tribe recommended monitors during ground disturbance, in addition to cultural sensitivity training for all project personnel, and requested detailed project information, including plans for ground disturbance.

Subsequently, the County consulted with Laverne Bill of the YDWN on March 30, 2021. During that meeting, the tribe indicated that its March 10, 2021, response was sent in error, and that the response was intended for a separate bank stabilization project in the immediate vicinity. Mr. Bill informed the County (Personal Communication, JD Trebec, March 31, 2021) that the YDWN would like to ensure that contractors and workers are provided cultural resource sensitivity training, and be made aware of required procedures for informing the tribe of any artifacts and/or burial remains that may be encountered during ground-disturbing activities. During that meeting, the County and YDWN agreed on these measures and that consultation under AB 52 was considered complete. The YDWN did not identify for the County any known Tribal Cultural Resources that would be affected by the proposed project. Therefore, pursuant to Section 21080.3.2(b)(1) and 21082.3(d)(1), the County concluded consultation on July 14, 2021, under AB 52 for the project.

Public Resources Code 5024.1: California Register of Historical Resources

Section 5024.1 of the PRC established the California Register. Generally, a resource is considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register (California Code of Regulations [CCR] Title 14(3) Section 15064.5(a)(3)). For a cultural resource to qualify for listing in the California Register it must be significant under one or more of the following criteria:

- Criterion 1: Associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Criterion 2: Associated with the lives of persons important in our past;
- Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to being significant under one or more of these criteria, a resource must retain enough of its historic character and appearance to be recognizable as a historical resource and be able to convey the reasons for its significance (CCR Title 14 Section 4852(c)). Generally, a cultural resource must be 50 years or older to be eligible for the California Register.

Health and Safety Code 7050.5: Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification.

Public Resources Code 5097.98: Notification of MLD

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendent or “MLD”) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

California’s Native American Graves Protection and Repatriation Act of 2001

Assembly Bill 978 (Steinberg, 2001) established the State of California’s Native American Graves Protection and Repatriation Act of 2001, a counterpart to the federal Native American Graves

Protection and Repatriation Act of 1990 (25 U.S.C. Sec. 3001 *et seq.*). It called for creation of a 10-member Repatriation Oversight Commission appointed by the Governor and a process with penalties and enforcement procedures for repatriation of Native American human and cultural remains originating in California. In 2020, Assembly Bill 275 amended this law to expand the procedures and expedite repatriation.

Local Regulations

The following are any new or additional regulatory agencies and regulations pertinent to the proposed project on a local level not identified in the 1996 EIR.

2030 Countywide General Plan

The 2030 Countywide General Plan contains the following goals, policies, and actions related to cultural and Tribal Cultural Resources that are relevant to the proposed project:

- Goal CO-4: Cultural Resources. Preserve and protect cultural resources within the County.
- Policy CO-4.1: Identify and safeguard important cultural resources.
- Policy CO-4.2: Implement the provisions of the State Historical Building Code and Uniform Code for Building Conservation to balance the requirements of the Americans with Disabilities Act with preserving the architectural integrity of historic buildings and structures.
- Policy CO-4.3: Encourage owners of historic resources to preserve and rehabilitate their properties.
- Policy CO-4.4: Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist use in agricultural areas, so long as their historical authenticity is maintained or enhanced.
- Policy CO-4.10: Encourage voluntary landowner efforts to protect cultural resources consistent with State law.
- Policy CO-4.11: Honor and respect local tribal heritage.
- Policy CO-4.12: Work with culturally affiliated tribes to identify and appropriately address cultural resources and tribal sacred sites through the development review process.
- Policy CO-4.13: Avoid or mitigate to the maximum extent feasible the impacts of development on Native American archaeological and cultural resources.

Action CO-A58: Establish an inventory and map of known significant historic and cultural resources, as well as sensitive areas where such resources are likely to occur. Work with the Rumsey and Cortina Tribes to identify sacred sites and develop a cultural sensitivity map. This information is protected as confidential under State law.

Action CO-A60: Review and monitor demolition permits, grading permits, building permits, and other approval procedures to reinforce preservation goals.

Action CO-A63: Require cultural resources inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, require a mitigation plan to protect the resource before the issuance of permits. Mitigation may include:

- Having a qualified archaeologist or paleontologist present during initial grading or trenching;
- Redesign of the project to avoid historic or paleontological resources;
- Capping the site with a layer of fill; and/or
- Excavation and removal of the historical or paleontological resources and curation in an appropriate facility under the direction of a qualified professional.

Responsibility: Planning and Public Works Department
Timeframe: Ongoing

Action CO-A64: Require that discretionary projects which involve earth disturbing activities on previously undisturbed soils in an area determined to be archaeologically sensitive perform the following:

- Enter into a cultural resources treatment agreement with the culturally affiliated tribe.
- Retain a qualified archaeologist to evaluate the site if cultural resources are discovered during the project construction. The archaeologist will have the authority to stop and redirect grading activities, in consultation with the culturally affiliated tribe and their designated monitors, to evaluate the significance of any archaeological resources discovered on the property.
- Consult with the culturally-affiliated tribe to determine the extent of impacts to archaeological resources and to create appropriate mitigation to address any impacts.
- Arrange for the monitoring of earth disturbing activities by members of the culturally affiliated tribe, including all archaeological surveys, testing, and studies, to be compensated by the developer.

- Implement the archaeologist's recommendations, subject to County approval.
- Agree to relinquish ownership of all artifacts that are found on the project area to the culturally affiliated tribe for proper treatment and disposition.

Responsibility: Planning and Public Works Department
Timeframe: Ongoing

Action CO-A65: Require that when cultural resources (including non-tribal archeological and paleontological artifacts, as well as human remains) are encountered during site preparation or construction, all work within the vicinity of the discovery is immediately halted and the area protected from further disturbance. The project applicant shall immediately notify the County Coroner and the Planning and Public Works Department. Where human remains are determined to be Native American, the project applicant shall consult with the Native American Heritage Commission (NAHC) to determine the person most likely descended from the deceased. The applicant shall confer with the descendant to determine appropriate treatment for the human remains, consistent with State law.

Action CO-A66: Prohibit the removal of cultural resources from the project site except by a qualified consultant and after the County planning staff have been notified. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, pestles, dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations and walls, structures and features with square nails, and refuse deposits often in old wells and privies.

Action CO-A69: Refer all development proposals that may adversely affect cultural resources to the Northwest Information Center (NWIC) at Sonoma State University for review and comments. The NWIC will identify the presence or absence of known cultural resources and/or previously performed studies in or near a given project area and will offer recommendations regarding the need for additional studies, where necessary. If the NWIC recommends further study, the project applicant shall contract with a qualified professional to conduct the study and make recommendations designed to avoid or minimize adverse impacts on cultural or historic resources and indicate whether further investigation is needed. All studies shall be completed and submitted to the County prior to the completion of any environmental document for the project.

Action CO-A70: Refer draft environmental documents, including any studies and recommended mitigation measures, to the appropriate culturally-affiliated tribes for review and comment as part of the public review process.

Historic Landmarks Ordinance

The Historic Landmarks Ordinance, Yolo County Code, Title 8, Chapter 11 (Historic Landmarks Ordinance), the In-Channel Maintenance Mining Ordinance, Yolo County Code, Title 10, Chapter 3 (In-Channel Ordinance) and the Off-Channel Surface Mining Ordinance, Yolo County Code Title 10, Chapter 4) (Mining Ordinance), all of which are not proposed to be substantively modified by the CCAP Update, also address the protection of cultural resources, as follows.

Section 8-11.101. Purpose

The purpose of this chapter is to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places and areas within the County that reflect elements of its cultural, agricultural, social economic, political, aesthetic, military, maritime, engineering, archaeological, religious, ethnic, natural, architectural and other heritage...

Off-Channel Mining Plan

The County's Off-Channel Mining Plan (OCMP) contains the following objective relevant to the project.

Objective 2.3-7: Avoid damage to important cultural resources, in order to document and/or preserve the historic and prehistoric record.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to cultural resources:

Section 10-4.410. Cultural Resources.

- (a) All resource records shall be checked for the presence of and the potential for prehistoric and historic sites, paleontological resources, and unique geologic features. Damaging effects on cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified professional (either an archaeologist or geologist, depending on the resource type) prior to the commencement of mining operations. If a cultural resource or unique geologic resources are determined not to be important, both the resource and the effect on it shall be reported to the County, and the resource need not be considered further. If avoidance of an important cultural, paleontological, or unique geologic resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.
- (b) If human skeletal remains are encountered during excavation, all work within seventy-five (75') feet shall immediately stop, and the County Coroner shall be

notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate Native American community identified by the Native American Heritage Commission shall be contacted, and an agreement for treating or disposing of, with appropriate dignity, the remains and associated grave goods shall be developed.

If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75') feet shall immediately stop and the Director shall be notified at once. The find must be recorded by a qualified archaeologist or paleontologist using relevant professional protocols and a report fully recording the find submitted to the County. This report shall include recommendations for appropriate removal and preservation of the artifact. The County encourages the donation of the find to the County for public display at the Cache Creek Nature Preserve or other appropriate venue.

Section 10-4.502 Applications: Contents. [excerpt]

- (b) Site-specific technical reports, performed by qualified professionals in the appropriate area of expertise, shall provide specific proposals for inclusion in the surface mining permit to address the following potential environmental impacts:
 - (6) A cultural resources survey of the proposed mining area, in order to evaluate the potential for historic and/or prehistoric artifacts. A survey may not be required if a preliminary investigation from the Northwest Information Center indicates that the likelihood of archaeological resources is low for the proposed site.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methods used to analyze and determine the changes in the proposed project's potential impacts related to cultural and Tribal Cultural Resources. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, other requirements in CEQA, and applicable policies and regulations of Yolo County. An impact to cultural and/or Tribal Cultural Resources is considered significant if the proposed project would:

- a) Cause a substantial adverse change in the significance of an historical resource pursuant to CEQA Guidelines, Section 15064.5.
- b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5.

- c) Disturb any human remains, including those interred outside of dedicated cemeteries.
- d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.
- e) The project has the potential to eliminate important examples of the major periods of California history or prehistory (CEQA Guidelines, Section 15065(a)(1)).
- f) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to cultural and Tribal Cultural Resources.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is an explanation (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a significant effect on cultural and Tribal Cultural Resources if it would:

- Disturb paleontological resources.

Impacts associated with the loss of paleontological resources are addressed and evaluated under criterion “f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature” in Section 4.5, Geology and Soils, Mineral and Paleontological Resources of this Draft SEIR.

- Disturb archaeological resources.

Impacts to archaeological resources are addressed by criteria “a,” “b” and “e” above.

- Disturb historical resources.

Impacts to historical resources are addressed by criteria “a” and “e” above.

- Disturb cultural resources that are either listed or eligible to be listed on the National Register of Historic Places (NRHP); registered or eligible to be registered as a State Historical Landmark; or included in a local inventory of historic properties.

Impacts to listed or potentially eligible cultural resources are addressed by criteria “a” and “e” above.

- Have the potential to cause a physical change which would affect unique ethnic cultural

values.

Impacts to unique ethnic cultural values is addressed by criterion “d” above.

- Restrict existing religious or sacred uses within the project area.

Impacts associated with restricting access to religious or sacred sites is addressed by criterion “d” above.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are summarized in Table 4.4-1. The table provides a discussion of the status of each mitigation measure.

Table 4.4-1: 1996 EIR Impact Statements, Mitigation Measures and, Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.11-1	<p>Proposed mining activities could disturb paleontological resources. This is considered to be a significant impact.</p> <p><u>Note: paleontology issues are addressed separately in Section 4.5 of this Draft SEIR</u></p>	<p>Mitigation Measure 4.11-1a/Condition of Approval No. 72^a requires:</p> <p>“Implement the performance standard included in Section 10-4.410 (Cultural Resources) of the County Mining Ordinance.”</p> <p>This mitigation measure will continue to be implemented and will apply if unknown cultural resources are found.</p> <p>Mitigation Measure 4.11-1b/Condition of Approval No. 73^a requires:</p> <p>“The operator shall implement a training program that alerts project employees involved with earthmoving as to the nature of paleontological and archaeological resources in the region, the laws that protect the resources, and responsibilities for reporting potential findings to appropriate authorities. This program shall be developed by a qualified cultural resource professional.”</p> <p>CEMEX has reported that a training video was prepared by a qualified cultural resource professional and is shown to all employees on a regular basis. See Mitigation Measure 4.4-1 which would replace this measure.</p>
4.11-2	<p>Proposed mining activities would disturb archaeological resources. This is considered to be a significant and unavoidable impact.</p>	<p>Mitigation Measure 4.11-2a/Condition of Approval No. 74^a requires:</p> <p>“No mining within the Snyder West parcel (Phases IV and VI) shall be conducted until an accurate mapping of YOL-69 is completed, and the site is evaluated by an archaeologist to</p>

		<p>determine its significance and uniqueness. The following tasks shall be performed:</p> <ol style="list-style-type: none">a. Contract a surveyor to accurately map the cultural resource site on a topographic map, based on information, preliminary map, and recommendations contained in the YOL-69 mechanical subsurface testing report (Holman & Associates, 1996). Upon completion of mechanical testing, the borders of the deposits shall be staked by the archaeologist.b. Mapping of the resource shall be completed prior to commencement of mining in mining areas that include the resources.c. Register the information obtained, including a map of the YOL-69 site, on State of California Archaeological Site Survey forms for filing at the State Historical Preservation Regional Office located at Sonoma State University. Prepare a professional report with all cultural resources information obtained and submit it for approval to the Northwest Information Center. A copy shall also be sent to the Community Development Director.d. Before mining begins on YOL-69, an archaeologist shall be contracted to evaluate the YOL-69 site and determine its significance and uniqueness as defined in Appendix K of CEQA. A program of in-field evaluation testing shall be undertaken inside the newly recorded borders of YOL-69 to determine its significance. The evaluation of this site shall be extensive enough to guide the development of a mitigation program if the site is found to be significant. If the site is not found to be significant or unique, no archaeological mitigation program, such as in-field data retrieval through hand excavation and recording of findings, will be required. However, an archaeologist must be present during the excavation of this site to monitor for indicators of human skeletal remains.e. If it is determined that the site contains significant cultural resources, an appropriate mitigation program shall be developed, before mining begins on Yol-69, based on the information obtained during the site evaluation. This mitigation program shall include an extensive in-field data retrieval through hand excavation. This program of data retrieval must be conducted by an archaeologist and could include but not be limited to professional in-field excavation of a percent of the area to be destroyed by the
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		<p>project to record the artifacts encountered and other data that might contribute to the scientific understanding of the culture and the way of life of the prehistoric people who lived in the region. In addition, an archaeologist must be present during the mining of the portion of the site that was not hand excavated to monitor for any indication of human skeletal remains.”</p> <p>Resources and finds associated with the CA-YOL-69 site were repatriated to the Cortina Indian Rancheria in 2004 or permanently relocated to a protected confidential location away from the mining area. A legal description was filed with the Native American Heritage Commission and California Historical Resources Information System (CHRIS). This condition has been implemented and will continue to apply if unknown cultural resources are found.</p> <p>Mitigation Measure 4.11-2b/Condition of Approval No. 75^a requires: “Implement Mitigation Measure 4.11-1b.”</p> <p>See discussion above regarding implementation.</p> <p>Mitigation Measure 4.11-2c/Condition of Approval No. 76^a requires: “Implement Mitigation Measure 4. 11-1a.”</p> <p>See discussion above regarding implementation.</p>
4.11-3	Proposed mining activities could disturb or destroy historical resources. This is considered to be a less-than-significant impact.	No Mitigation Measures required because no known historic resources were identified that would be adversely affected by the project, and Mitigation Measure 4.11-1a would mitigate potential unknown finds.

Source: Baseline Environmental Consulting, 2021.

Notes:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review as modified through February 11, 2021.

4.4.5 IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial

increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.4-1: The proposed project could cause a substantial adverse change in the significance of an historical resource pursuant to CEQA Guidelines, Section 15064.5. The impact would be potentially *significant*.

Although CA-YOL-69 exists within the area subject to consideration under this Draft SEIR, the site has been fully mitigated, removed, and reburied offsite in accordance with Mitigation Measure 4-11.2a of the 1996 EIR. However, there always exists the potential for buried cultural resources within the project area, either as redeposited artifacts associated with CA-YOL-69 or as previously unknown resources. Further, the alluvial river wash and floodplain soil types present in the project area indicate a history of flood events that increase the likelihood for deeply buried archaeological sites. Based on these factors, there exists a potential for buried cultural resources in the project area. If encountered and impacted during construction, the project could cause a substantial adverse change in the significance of currently unknown archaeological resources that may meet the definition of a historical resource, and this could be a significant impact. Continued implementation of County regulations and Mitigation Measure 4.11-1a (Condition of Approval No. 74) would require that all construction personnel be informed about the procedures for stopping work and notifying the County in the event that there is an unanticipated discovery of archaeological materials. In the event that an inadvertent discovery of buried cultural resources occurs during excavation activities, the project applicant would be required to implement the provisions of OCSMO Section 10-4.410 and the conditions of approval. To address the recommendations of the YDWN and modernize the 1996 EIR Mitigation Measure 2.11-1a, new Mitigation Measure 4.4-1 below replaces Condition of Approval No. 74, thus ensuring this would result in a less-than-significant impact.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new important information from the Tribal consultation relevant to this area of impact that was not previously known at the time of the 1996 EIR in the form of

considerably different mitigation measures than those analyzed in the previous EIR that would substantially reduce the project's significant effects on cultural and Tribal Cultural Resources, as shown in Mitigation Measure 4.4-1.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level

Mitigation Measure 4.4-1

In addition to compliance with Section 10-4.410 of the Mining Ordinance, the following new requirements shall be implemented for the proposed project to reduce potential impacts associated with a substantial adverse change in the significance of an historical resource to a less-than-significant level. This measure, together with Mitigation Measure 4.5-5, replace Condition of Approval No. 73 and Condition of Approval No. 74.

- a. *The operator shall modify the Reclamation Plans to add 8-10 inches of additional soil over the protected confidential reburial site, blended with the existing grade on the exterior and mounded in the center. Reclamation plantings shall consist of native grasses, and plants with a shallow root system. The added soil and plantings shall blend in with the surrounding restoration and reclamation.*
- b. *The operator shall fence the protected confidential reburial site for CA-YOL-69 to the specifications set by the County. Stake and wire fencing, or other fencing approved by the County, may be used to protect the site during mining. Sturdier permanent fencing shall be installed during final reclamation, including over a larger area than the reburial site.*
- c. *The operator shall design, develop, and install new signage to discourage access by operator's personnel and approved visitors, subject to County approval. The operator shall be responsible for annual monitoring and regular ongoing maintenance of the signage.*
- d. *The operator shall record a deed restriction or Declaration of Covenants and Restrictions to protect the area, the choice between the two and the content shall be subject to County review and approval.*
- e. *If isolated artifacts are encountered on other parts of the project site they shall be placed within the restricted area.*
- f. *Within six months of approval, the operator shall retain a qualified professional archaeologist, subject to approval by the County, to develop and implement a contractor awareness training program. A consultant and construction worker cultural resources awareness brochure and training program for all personnel involved in project implementation shall be developed in coordination with interested Native American tribes. The brochure shall be distributed and the training shall be conducted in coordination with qualified cultural resources*

specialists and Native American Representative and monitors from culturally affiliated Native American Tribes. The program shall include relevant information regarding sensitive tribal cultural laws and regulations. The worker cultural resources awareness program shall describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential archeological resources or artifacts are encountered. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native American and for behavior consistent with Native American Tribal values. A copy of the cultural resources awareness brochure and written verification of completion of the training program shall be submitted to the Yolo County Department of Community Services. All employees involved with ground disturbance and other related construction activities shall complete this training annually.

- g. Actions a, b, c, and e shall be performed by/under the direction of a professional archeologist and tribal monitor.*

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.4-2: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5. The impact would be potentially *significant*.

As described in Impact 4.4-1 above, there exists the potential for buried cultural resources within the project area, either as redeposited artifacts associated with CA-YOL-69 or as previously unknown resources. If encountered and impacted during construction, the project could cause a substantial adverse change in the significance of currently unknown archaeological resources that may meet the definition of a unique archaeological resource, and this could be a significant impact. Continued implementation of County regulations and Mitigation Measure 4.11-1a (Condition of Approval No. 74) would require that all construction personnel be informed about the procedures for stopping work and notifying the County in the event that there is an unanticipated discovery of archaeological materials. In the event that an inadvertent discovery of buried cultural resources occurs during excavation activities, the project applicant would be required to implement the provisions of OCSMO Section 10-4.410 and the conditions of approval. To address the recommendations of the YDWN and modernize the 1996 EIR Mitigation Measure 2.11-1a, new Mitigation Measure 4.4-1 above replaces Condition of Approval No. 74, thus ensuring this would result in a less-than-significant impact.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new important information from the Tribal consultation relevant to this area of impact that was not previously known at the time of the 1996 EIR in the form of considerably different mitigation measures than those analyzed in the previous EIR that would substantially reduce the project's significant effects on cultural and Tribal Cultural Resources, as shown in Mitigation Measure 4.4-1.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.4-2

Implement Mitigation Measure 4.4-1.

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.4-3: Disturb any human remains, including those interred outside of dedicated cemeteries. The impact would be *less than significant*.

No known dedicated cemeteries are located in or near the project area; however, human remains have been reported in the vicinity in a quantity that was not previously known at the time of the 1996 EIR. Although those remains have since been removed and reburied offsite, the potential exists for previously unknown pre-contact human remains to be unearthed during ground-disturbing activities, and if so, this impact could be significant. Implementation of Off Channel Mining Ordinance Section 10-4.410 would require specific procedures in the event of the discovery so that discoveries are handled in accordance with State law. Therefore, the project would result in a less-than-significant impact associated with the disturbance of human remains.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation

that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.4-4: Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. The impact would be potentially *significant*.

Tribal consultation between the County and California Native American Tribes was carried out in accordance with AB 52. In consultation with the Yocha Dehe Wintun Nation, as summarized in subsection 4.4.3 above which describes compliance with AB 52 and identifies the results of consultation. Although tribal consultation resulted in a conclusion that there are no Tribal Cultural Resources that would be affected by the project, the County has determined that there is a possibility that unknown Tribal Cultural Resources could be encountered during construction, and if present, the project activity could have a potentially significant impact on those resources. The County has further determined that a contractor awareness training program (Mitigation Measure 4.4-1) and specific unanticipated discovery measures that include tribal notification would reduce that impact to a level that is considered less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new important information from the Tribal consultation relevant to this area of impact that was not previously known at the time of the 1996 EIR in the form of considerably different mitigation measures than those analyzed in the previous EIR that would substantially reduce the project's significant effects on cultural and Tribal Cultural Resources, as shown in Mitigation Measure 4.4-1.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.4-4

Implement Mitigation Measure 4.4-1.

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.4-5: The project has the potential to eliminate important examples of the major periods of California history or prehistory (CEQA Guidelines, Section 15065(a)(1)). The impact would be potentially *significant*.

As described in Impact 4.4-1 above, there exists the potential for buried cultural resources within the project area, either as redeposited artifacts associated with CA-YOL-69 or as previously unknown resources. If encountered and impacted during mining operations, the project could cause a substantial adverse change in the significance of currently unknown archaeological resources that may be important examples of the major periods of California history or prehistory, and this could be a significant impact. Implementation of Mitigation Measure 4.4-1 would require that all construction personnel be informed about the procedures for stopping work and notifying the County in the event that there is an unanticipated discovery of archaeological materials. In the event that an inadvertent discovery of buried cultural resources occurs during excavation activities, the project applicant would be required to implement the provisions of OCSMO Section 10-4.410. With mitigation incorporated, this would result in a less-than-significant impact.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new important information from the Tribal consultation relevant to this area of impact that was not previously known at the time of the 1996 EIR in the form of considerably different mitigation measures than those analyzed in the previous EIR that would substantially reduce the project's significant effects on cultural and Tribal Cultural Resources, as shown in Mitigation Measure 4.4-1.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.4-5

Implement Mitigation Measure 4.4-1.

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.4-6: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to cultural and Tribal Cultural Resources. The impact would be *less than significant*.

Table 4.4-2 below provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to cultural and Tribal Cultural Resources. The policies and regulations identified in the table are those that have been revised or put into effect since the 1996 EIR, as the underlying CEMEX mining project has been determined to be consistent with County program policies and regulations.

As shown in the table below, the proposed project would be generally consistent with applicable standards related to cultural and Tribal Cultural Resources. Thus, a less-than-significant impact would occur.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.4-2: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy CO-4.1 Identify and safeguard important cultural resources.</p>	<p>With continued implementation of Mitigation Measure 4.4-1 and Off Channel Mining Ordinance 10-4.410, the project would be consistent with this policy.</p>
<p>Policy CO-4.3 Encourage owners of historic resources to preserve and rehabilitate their properties.</p>	<p>With continued implementation of Mitigation Measure 4.4-1 and Off Channel Mining Ordinance 10-4.410, the project would be consistent with this policy.</p>
<p>Policy CO-4.11 Honor and respect local tribal heritage.</p>	<p>See discussion under Impact 4.4-4. With continued implementation of Mitigation Measure 4.4-1 the project would be consistent with this policy.</p>
<p>Policy CO-4.12 Work with culturally affiliated tribes to identify and appropriately address cultural resources and tribal sacred sites through the development review process.</p>	<p>See discussion above of compliance with Policy CO-4.11.</p>
Off-Channel Mining Plan	
<p>Objective 2.3-7 Avoid damage to important cultural resources, in order to document and/or preserve the historic and prehistoric record.</p>	<p>See discussion above of compliance with Policy CO-4.1 and discussion under Impact 4.4-1. With continued implementation of Mitigation Measure 4.4-1 the project would be consistent with this policy.</p>
Off-Channel Surface Mining Ordinance	
<p>Section 10-4.410</p> <p>(a) All resource records shall be checked for the presence of and the potential for prehistoric and historic sites. Damaging effects on cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified professional prior to the commencement of mining operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the Agency, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.</p> <p>(b) If human skeletal remains are encountered during excavation, all work within seventy-five (75') feet shall immediately stop, and the County Coroner shall be notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate</p>	<p>See discussion of Impact 4.4-2. In the event of the inadvertent discovery of prehistoric, historic, paleontological resources or human remains, the project would implement the provisions of Off Channel Mining Ordinance Section 10-4.410. Therefore, the project would be consistent with this regulation.</p>

<p>Native American community identified by the Native American Heritage Commission Draft EIR shall be contacted, and an agreement for treating or disposing of, with appropriate dignity, the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75') feet shall immediately stop and the Director shall be notified at once. Any cultural resources found on the site shall be recorded by a qualified archaeologist and the information shall be submitted to the Agency. (§ 1, Ord. 1190, eff. September 5, 1996).</p>	
<p>Section 10-4.502(b)(6) [excerpt] (6) A cultural resources survey of the proposed mining area, in order to evaluate the potential for historic and/or prehistoric artifacts. A survey may not be required if a preliminary investigation from the Northwest Information Center indicates that the likelihood of archaeological resources is low for the proposed site.</p>	<p>The 1996 cultural resource assessments prepared for the proposed project included a survey of the proposed mining area, and the information was updated in the 2019 Origer report and the updated 2021 Confidential Cultural Resources Records Search and Literature Review prepared for this Draft SEIR that also included a site reconnaissance. Thus, the proposed project is consistent with this regulation.</p>
<p>Reclamation Ordinance</p>	
<p>None applicable.</p>	

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4.5 GEOLOGY AND SOILS, MINERAL RESOURCES, AND PALEONTOLOGICAL RESOURCES

4.5.1 INTRODUCTION

This Geology and Soils, Mineral and Paleontological Resources section of the Draft SEIR describes the geologic and soil characteristics of the project site and assesses the effects of the proposed project on the geology and soils, mineral and paleontological resources of the County. Information for the section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR⁴ and the following project-specific reports:

- Slope Stability Evaluation, CEMEX Cache Creek, Yolo County, California, prepared by Geocon Consultants, February 2018.⁵ (Appendix I)
- Cache Creek: Hydraulic Analysis of the CEMEX Reach Memorandum, prepared by Cunningham Engineering Corporation (CEC), March 10, 2016.⁶
- Results of Paleontological Mitigation for CEMEX Woodland Quarry Project, Yolo County, California (LSA Project No. CMX1802), prepared by LSA Associates, February 2019.⁷

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of proposed project. The following comments were submitted by the California Department of Conservation, Division of Mine Reclamation in an email dated March 9, 2021, and a letter dated March 29, 2021, responses are provided in *italics*. NOP comment letters are included in Appendix B of this Draft SEIR.

- What is the mine ID associated with this project?

The County responded in an email on March 10, 2021, that the project is for Mine ID #91-57-0008.

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

⁵ Geocon Consultants, Inc, 2018. • Slope Stability Evaluation, CEMEX Cache Creek, Yolo County, California. February.

⁶ Cunningham Engineering Corporation, 2016. Hydraulic Analysis of the CEMEX Reach Memorandum. March 10.

⁷ LSA Associates, 2019. Results of Paleontological Mitigation for CEMEX Woodland Quarry Project, Yolo County, California (LSA Project No. CMX1802), letter report addressed to Ms. Deborah Haldeman, Regional Manager, Northern California/Nevada Aggregate Resource Development- Community Relations- Government Affairs, CEMEX. February 14.

- Division staff noted that they have reviewed the subject NOP pursuant to the CEQA and State CEQA Guidelines and offers no comments at this time, and please continue to include the Division on the distribution list for the proposed project.

The County has provided the Division notification of the availability of this Draft SEIR for review.

The following subsections describe the existing geological and paleontological setting of the County and specifically in the lower Cache Creek area, the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.5.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes new information that has become available since those reports were completed.

Description of Regional Environment

As noted in the 1996 EIR, the project site is located on the western margin of the Sacramento Valley, the northern portion of the Great Valley Geomorphic Province of California. The Sacramento Valley is a large structural trough formed between the Coast Ranges to the west and the Sierra Nevada to the east. The Valley is filled with a thick sequence of sedimentary rocks and sediments that range from Upper Jurassic age (150 million years old) marine rocks through modern alluvial deposits.

The headwaters (i.e., source) of Cache Creek are located in the upland area of the Coast Ranges to the northwest. The upstream reaches along Cache Creek contain areas of active erosion that are the primary sources of sediment supply, which are transported and deposited downstream. The creek flows southeastward through the Capay Valley to the southern end of the Capay Hills. From the town of Capay, the creek flows eastward across Hungry Hollow. Through this reach, the creek is a wide, braided stream with a relatively low gradient. At the eastern margin of Hungry Hollow, the creek flows in a more constricted, higher-gradient reach through the southern Dunnigan Hills. The creek then widens and the bed slope decreases as it emerges onto the Sacramento Valley near the town of Yolo. The project site is located in the southern portion of the Hungry Hollow alluvial valley.

Description of Local Environment

The local geological environment has not changed since the 1996 EIR. In summary, based on the Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley and Northern Sierran

Foothills,⁸ the site is underlain by Holocene-aged stream channel deposits. These depositional and erosional deposits are associated with open, active stream channels and generally consist of unweathered gravel, sand, silt, and clay. Based on the site-specific geotechnical study,⁹ the overburden soil at the site consists of an approximate 5- to 15-foot-thick layer of interbedded silty sand, silt, silty clay, sandy clay, clay, and clayey sand. The gravelly soil below the overburden generally consists of loose to very dense poorly graded sand, poorly graded sand with gravel, poorly graded gravel with sand, and silty gravel with sand, with thin (up to 5 feet) interbedded layers of clay and poorly graded sand with silt and scattered small cobbles up to 4 inches. The geologic unit proposed for mining (mixed clay, silt, sand, and gravel described above) is underlain by a very stiff to hard clay layer.

No portion of the project site is within the established Alquist-Priolo Earthquake Fault Zone (APEFZ),¹⁰ and no active faults have been mapped in the area by the United States Geological Survey (USGS) or the California Geological Survey (CGS). Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. The closest A-PEFZ is the zone delineated for the Hunting Creek-Berryessa Fault, located over 30 miles west of the project site. The closest known active faults to the Project Site are the Great Valley Fault System and a segment of the Dunnigan Hills Fault, both located to the west and northwest, respectively. In the event of a major earthquake along these faults or other faults in the area, the CCAP area could be subject to seismic ground shaking. The expected range of ground acceleration at the site during a major earthquake event would be expected to be very strong to severe (under the Modified Mercalli scale) and the related damage to typical structures would be moderate.

Mineral Resources

The California State Mining and Geology Board developed the Mineral Resource Zone (MRZ) system to classify California's mineral resources. It is used in this chapter to discuss the presence of significant aggregate deposits. MRZs are defined as follows:

MRZ-1: Areas where adequate information indicates that significant mineral deposits are not present or where a low likelihood for the presence of mineral deposits exists;

MRZ-2: Areas where adequate information indicates significant mineral deposits are present or where a high likelihood for the presence of mineral deposits exists;

MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data; and

⁸ Helley, E. J. and Harwood, D. S., Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley and Northern Sierran Foothills, California, United States Geological Survey Miscellaneous Field Studies map MF-1790, scale 1:62,500, 1985.

⁹ Geocon Consultants, 2018, Slope Stability Evaluation, CEMEX Cache Creek, Yolo County, California, February. (Appendix I)

¹⁰ USGS, 2022, Earthquake Hazard Program website.– Alquist-Priolo Fault Zones in Electronic Format, December. Accessed 2 August 2022 at: <https://earthquake.usgs.gov/education/geologicmaps/apfaults.php>

MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

Aggregates are used in the production of building materials, such as concrete, asphalt, and cement. Locally produced aggregate is a valuable resource for urban regions because the cost of transporting these materials makes remote production cost prohibitive. The project is consistent with the State Legislature and County's recognition that the extraction of minerals is essential to the continued economic well-being of the State, County and to the needs of society (as codified in PRC Section 2711(a) and Section 10-4.103 of the County Mining Ordinance). As published in the California Department of Conservation's "Map Sheet 52, Aggregate Sustainability in California" (2018), aggregate construction materials are essential to modern society, both to maintain the existing infrastructure and to provide for new construction.

The CEMEX operation is a regionally important source of high-quality construction aggregate material that has been in operation for over 40 years. The State Department of Conservation has identified the project site as being in the MRZ-2 zone, meaning that significant mineral deposits are present or that a high likelihood for their presence exists.

As noted in the 1996 EIR, the majority of aggregate mined from the lower Cache Creek basin where the project site is located are suitable for the production of Portland Concrete Cement (PCC); this designation for the project site location was confirmed by the California Department of Conservation, California Geological Survey in 2018.¹¹ The specifications for PCC-grade aggregate are more restrictive than specification for other aggregate products, criteria that increase the usefulness and marketability of these deposits. PCC-grade aggregate is the scarcest and most valuable aggregate resource in the region.¹²

Paleontological Resources

Paleontology is the science is the study of life of past geological periods as known from fossil remains, and paleontological resources are fossils that typically occur in sedimentary rocks and deposits. The project site is located at the boundary between the Coast Ranges and the Central Valley geologic provinces and contains rocks associated with both regions. The rocks in the vicinity of the project site range in age from Late Cretaceous to recent and vary in lithology from marine sandstones to non-marine sands and gravel. Rocks from the Forbes (Late Cretaceous), Tehama and Red Bluff (Pliocene), and Modesto-Riverbank (Quaternary) formations are present in the planning area. Each of these formations is reported as being fossiliferous (i.e., potentially bearing paleontological resources).

Significant paleontological materials may be present within the alluvial deposits that would be excavated at the project site; however, recorded paleontological finds within the area are limited and are mostly confined to the gravels mapped as Modesto-Riverbank Formations. Several mammoth fossils have been collected from the unit mapped as the Modesto-Riverbank Formations. One mammoth locality northeast of Madison was in the bed of Cache Creek, but the

¹¹ California Department of Conservation, California Geological Survey, 2018, Mineral Land Classification: Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region, Special Report 245.

¹² Ibid.

fossils almost certainly were eroded out of the older gravels. Mammoth tusks, four to five molars, and a skull were collected in 1982 approximately 500 feet north of the project site. In 1955, a large molar was collected about 3 miles downstream from the 1982 locality.¹³ In September 2004, during aggregate excavations at the Granite Capay mining facility, the pelvis of a mammoth was discovered in the Tehama formation at the mouth of Capay Valley, where Cache Creek once formed a delta. The excavation of the specimen by paleontologists indicated that it was an isolated discovery.¹⁴

In 2018, a fossil discovery by CEMEX quarry workers occurred at the project site. CEMEX retained a qualified paleontological consultant (LSA Associates) to analyze fossil material collected during an unanticipated discovery made at the mining facility in November 2018. The following information was included in LSA's written report.¹⁵

The fossils were brought to the surface during the mining process (pumped to the surface by a large hose). The fossils were recovered (via suction dredging) from a depth of approximately 30 feet below the existing ground surface. The five postcranial bone fragments were interpreted to be a mammal (Class Mammalia Linnaeus) including one fragment from the femur (femoral head), one fragment from the pelvis, and three other undeterminable long bone fragments.

The geologic unit that produced the fossils was interpreted to be the Modesto formation. Based on their age, depositional environment, and the presence of fossils from other areas, the early Holocene to late Pleistocene sediments of the Modesto Formation are considered to have high paleontological sensitivity.

4.5.3 REGULATORY CONTEXT

The 1996 EIR included a detailed description of the California Surface Mining and Reclamation Act (SMARA), the County General Plan, and the Off-Channel Mining Plan (OCMP) and implementing ordinances. Since the 1996 EIR was certified, these laws and regulations have continued to evolve. The following discussion summarizes the relevant changes.

Federal Regulations

No relevant federal regulations are applicable to geologic or paleontological resources within the project area.

State Regulations

The following are the State environmental laws and policies relevant to geology and soils, mineral resources, and paleontological resources.

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act was enacted by the State in 1975, through Public Resources Code Sections 2710-2796, as a means of minimizing adverse environmental effects

¹³ Yolo County, 1996, Draft EIR for Off-Channel Mining Plan for Lower Cache Creek, March 26.

¹⁴ Yolo County, 2009. op.cit

¹⁵ LSA Associates, op.cit.

of surface mining, ensuring that mined lands are reclaimed to a usable condition and that the production and conservation of mineral resources are encouraged. The act establishes state policy regarding reclamation of mined lands and minerals management practices, among other things.

In 2016, two bills (Assembly Bill 1142 and Senate Bill 209), that together provided the most significant recent updates to SMARA, was approved at the State level. These updates were identified as potentially relevant to the CCAP program and were considered by the County in developing the proposed CCAP Update (2018). These updates to SMARA specified that lead agencies and operators must implement changes to the mine inspections process, financial assurance approval process, reclamation plan requirements, and inspector qualifications.

Public Resources Code Section 5097.5

Section 5097.5 of the Public Resources Code establishes protections for historic, prehistoric, archaeological, and paleontological features. In particular, Section 5097.5 prohibits the intentional excavation, removal, destruction, injury, or defacement of any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. Public lands are defined as those lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, public corporation, or any agency thereof.

The Society of Vertebrate Paleontology has identified vertebrate fossils, their taxonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.¹⁶

Local Regulations

The following are the plans and regulations pertinent to the proposed project on a local level (these have been updated since the 1996 EIR was approved).

2030 Countywide General Plan

The 2030 Countywide General Plan contains the following goals, policies, and actions related to geology, soils, and paleontological resources that are relevant to the proposed project (these goals, policies, and actions would replace those included and discussed in the 1996 EIR):

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

¹⁶ Society for Vertebrate Paleontology, 1995. Conformable Impact Mitigation Guidelines. Society for Vertebrate Paleontology News Bulletin 163: January.

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.

Policy CO-3.5: Preserve and protect the County’s unique geologic and physical features, which include geologic or soil “type localities”, and formations or outcrops of special interest.

Action CO-A63: Require cultural resources inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, require a mitigation plan to protect the resource before the issuance of permits. Mitigation may include:

- Having a qualified archaeologist or paleontologist present during initial grading or trenching;
- Redesign of the project to avoid historic or paleontological resources;
- Capping the site with a layer of fill; and/or
- Excavation and removal of the historical or paleontological resources and curation in an appropriate facility under the direction of a qualified professional.

Action CO-A65: Require that when cultural resources (including non-tribal archeological and paleontological artifacts, as well as human remains) are encountered during site preparation or construction, all work within the vicinity of the discovery is immediately halted and the area protected from further disturbance. The project applicant shall immediately notify the County Coroner and the Planning and Public Works Department. Where human remains are determined to be Native American, the project applicant shall consult with the Native American Heritage Commission (NAHC) to determine the person most likely descended from the deceased. The applicant shall confer with the descendant to determine appropriate treatment for the human remains, consistent with State law.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to geology, minerals, and paleontological resources:

Section 10-4.403. Accident Reporting.

The operator shall immediately notify the Director of any events such as fires, explosions, spills, land or slope failures, or other conditions at the site which could pose a hazard to life or property. Action shall be immediately undertaken to alleviate the hazard. The operator shall provide a written report of any such event, within thirty (30) days, which shall include, but not be limited to, a description of the facts of the event, the corrective measures used, and the steps taken to prevent a recurrence of the incident. Failure to provide this report shall initiate violation proceedings pursuant to Article 11. This condition does not supersede nor replace any requirement of any other governmental entity for reporting incidents.

Section 10-4.406. Benches.

During mining operations, a series of benches may be excavated in a slope provided that the excavations are made in compliance with the requirements of the State Mine Safety Orders (California Code of Regulations, Title 8, Subchapter 17). The vertical height and slope of the benches constructed for permanent reclaimed slopes shall not exceed maximum standards for the specific soil types presented in the California Code of Regulations, Title 8, Article 6. In general, vertical cutslopes between benches shall not exceed four (4') feet in height in topsoil and overburden sediments. Benching shall be allowed in cohesive soil (clay, sandy or silty clay, clayey silt) only. Slopes above the elevation of groundwater (determined at the time of the excavation by the level of exposed water in the excavation) that exceed the maximum vertical height shall be excavated and maintained at slopes not steeper than 2:1 (horizontal:vertical). Slopes located five (5') feet or less below the average summer low ground-water level shall not be steeper than 2:1 (horizontal:vertical). Slopes located more than five (5') feet below the average summer low groundwater level shall not be steeper than 1: 1 (horizontal to vertical).

Vertical cutslopes in excess of four (4') feet in height may be approved for the development of special habitat (e.g., bank swallows) if a site-specific slope stability analysis, performed by a licensed engineer, indicates that the slope does not exceed critical height for the on-site soil conditions. Projects proposing such slopes shall submit a long-term maintenance plan to ensure that the function of the slopes as habitat is met.

Section 10-4.410. Cultural Resources.

- (a) All resource records shall be checked for the presence of and the potential for prehistoric and historic sites, paleontological resources, and unique geologic features. Damaging effects on cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified professional (either an archaeologist or geologist, depending on the resource type) prior to the

commencement of mining operations. If a cultural resource or unique geologic resources are determined not to be important, both the resource and the effect on it shall be reported to the County, and the resource need not be considered further. If avoidance of an important cultural, paleontological, or unique geologic resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.

- (b) If human skeletal remains are encountered during excavation, all work within seventy-five (75') feet shall immediately stop, and the County Coroner shall be notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate Native American community identified by the Native American Heritage Commission shall be contacted, and an agreement for treating or disposing of, with appropriate dignity, the remains and associated grave goods shall be developed.

If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75') feet shall immediately stop and the Director shall be notified at once. The find must be recorded by a qualified archaeologist or paleontologist using relevant professional protocols and a report fully recording the find submitted to the County. This report shall include recommendations for appropriate removal and preservation of the artifact. The County encourages the donation of the find to the County for public display at the Cache Creek Nature Preserve or other appropriate venue.

Section 10-4.413. Drainage.

Surface water may be allowed to enter mined areas, through either perimeter berms or ditches and grading, when designed and engineered pursuant to an approved reclamation plan and where effective best management practices (BMPs) to trap sediment and prohibit contamination are included. Appropriate erosion control measures shall be incorporated into all surface water drainage systems. Stormwater drainage systems shall be designed to connect with natural drainages so as to prevent flooding on surrounding properties and County rights-of-way. Storm water runoff from mining areas shall be conveyed to lowered areas (detention basins) to provide detention of runoff generated during a twenty (20) year, one-hour storm event. All drainage conveyance channels or pipes (including spillways for detention areas) shall be designed to ensure positive drainage and minimize erosion. The drainage conveyance system and storm water detention areas shall be designed and maintained in accordance with Best Management Practices for the reduction of pollutants associated with runoff from mined areas.

The design and maintenance procedures shall be documented in the Storm Water Pollution Prevention Plan required for mining operations. The drainage system shall be inspected annually by a Registered Civil Engineer, Registered Geologist, or Certified Erosion and Sediment Control Specialist to ensure that the drainage system is functioning effectively and that adverse erosion and sedimentation are not occurring. The annual inspection shall be documented in the Annual Mining and Reclamation Report. If the system is found to be functioning ineffectively, the operator shall promptly implement the recommendations of the engineer.

Section 10-4.414. Dust Control.

Unless superseded by newer more effective standards, the following measures shall be implemented in order to control fugitive dust:

- (a) All stockpiled soils shall be enclosed, covered, or have sufficient moisture to control fugitive dust at all times. Inactive soil stockpiles should be vegetated or adequately watered to create an erosion-resistant outer crust.
- (b) During operating hours, all disturbed soil and unpaved roads shall be adequately watered to keep soil moist.
- (c) All disturbed but inactive portions of the site shall either be seeded or watered until vegetation is grown or shall be stabilized using methods such as chemical soil binders, jute netting, or other Yolo-Solano Air Quality Management District approved methods.

Section 10-4.431. Slopes.

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

Section 10-4.432. Soil Removal.

Soil shall be cut in maximum depths in order to minimize traffic and limit compaction. The handling and transportation of soil shall be minimized. To the extent feasible, all handling of topsoil shall be accomplished when the soil is dry in order to avoid undue compaction.

Section 10-4.433. Soil Stockpiles.

Topsoil, subsoil, and subgrade materials in stockpiles shall not exceed forty (40') feet in height, with slopes no steeper than 2:1 (horizontal:vertical). Stockpiles, other than aggregate stockpiles, shall be seeded with a native vegetative cover to prevent erosion and leaching. The use of topsoil for purposes other than reclamation shall not be allowed without the prior approval of the Director.

Slopes on stockpiled soils shall be graded to 2:1 (horizontal:vertical) for long-term storage to prevent use by bank swallows. At no time during the active breeding season (May 1 through July 31) shall slopes on stockpiles exceed a slope of 1:1, even on a temporary basis. Stockpiles shall be graded to a minimum 1:1 slope at the end of each workday where stockpiles have been disturbed during the active breeding season.

Section 10-4.502. Applications: Contents. [excerpt]

- (b) Site-specific technical reports, performed by qualified professionals in the appropriate area of expertise, shall provide specific proposals for inclusion in the surface mining permit to address the following potential environmental impacts:
 - (5) geotechnical study to evaluate any proposed operational slopes steeper than a 2:1 (horizontal:vertical) ratio to ensure that they will be stable while mining is being conducted and that the slopes possess an adequate factor of safety. The study shall include an evaluation of any slopes proposed to provide flood protection from Cache Creek and shall indicate what measures are proposed to prevent breaching or pit capture. Measures shall be included within the study to ensure slope stability and maintenance;

Section 10-4.701. Annual Reports: Contents. [excerpt]

Every surface mining operator shall submit an annual report of surface mining operations no later than November 1 of each year, describing the activities of the previous twelve (12) months. Annual reports shall no longer be required, once final reclamation has been completed and financial assurances have been released. Operators shall submit one hard copy and one electronic copy to the County. Such reports shall contain the following information:

- (g) A report prepared by a Registered Geologist, a Licensed Geotechnical Engineer, or a Registered Civil Engineer describing the remedial measures necessary to remediate any slope failures, levee breaches, or other topographical problems referred to in the site plan above;

Section 10-4.1104. Inspections: Designee.

Inspections shall be conducted by a state-licensed geologist, state-licensed civil engineer, state-licensed landscape architect, state-licensed forester, or a qualified County employee, who is experienced in mined land reclamation (as described in the Act and related regulations) and experienced in activities governed by the Act, and who has not been employed by the mining operation in any capacity during the previous twelve (12) months.

Surface Mining Reclamation Ordinance

Title 10, Chapter 5 of the Yolo County Code contains the Surface Mining Reclamation Ordinance (Reclamation Ordinance), which provides the following requirements relevant to geology, minerals, and paleontological resources:

Section 10-5.504. Backfilled Excavations: Improvements.

Improvements, including the construction of buildings, roadways, or other public facilities proposed for construction in reclaimed mining pits shall require a geotechnical investigation of the stability of fills conducted by a Licensed Geotechnical Engineer or a Registered Civil Engineer. A report on the results and recommendations of the investigation shall be submitted to the Director prior to the issuance of building permits. The recommendations of the geotechnical investigations shall be fully implemented by the applicant.

Section 10-5.505. Backfilled Excavations: Inspections.

Backfilled mining areas and slopes shall be inspected by the Director following strong seismic shaking events. Observable damage shall be reported to the landowner. If the Director determines that the damage requires repair to meet the intended use of the reclaimed land, the landowner shall perform the required repairs.

Section 10-5.508. Erosion Control.

The grading of final slopes, the replacement of soil, and associated erosion control measures shall take place prior to November 1 in areas where mining has been completed. To minimize erosion, the finish grading of mining pit slopes above the average seasonal high groundwater level, with the exception of the location of designated haul roads, shall be performed as soon as practical after the mining of overburden and unsaturated aggregate resources has been completed. A drought-tolerant, weed-free mix of native grass species shall be established on slopes prior to November 1 or alternate erosion control (mulch or netting) shall be placed on

exposed soil on the slopes prior to this date. Phasing of mining to minimize the length of exposed mining slopes during the rainy season is encouraged.

Section 10-5.530. Slopes.

All final reclaimed slopes shall have a minimum safety factor equal to or greater than the critical gradient as determined by an engineering analysis of the slope stability. Final slopes less than five (5') feet below the average summer low groundwater level shall be designed in accordance with the reclaimed use and shall not be steeper than 2:1 (horizontal:vertical). Reclaimed wet pit slopes located five (5') feet or more below the average summer low groundwater level shall not be steeper than 1:1 (horizontal:vertical), in order to minimize the effects of sedimentation and biological clogging on groundwater flow, to prevent stagnation, and to protect the public health.

The maximum slope angle for all final reclaimed slopes shall be determined by slope stability analysis performed by a Licensed Geotechnical Engineer or Registered Civil Engineer and submitted with any mining and reclamation application for review by the Director. The slope stability analysis shall conform with industry standard methodologies regarding rotational slope failures under static and pseudostatic (seismic) conditions. The minimum factor of safety for all design reclamation slopes located adjacent to levees or below existing structures shall not be less than 1.5 for static and 1.1 for pseudostatic (seismic) conditions. Other reclamation slopes shall meet a minimum factor of safety that is consistent with the post-reclamation use proposed for the mining area.

Section 10-5.531. Soil Ripping.

Where areas are to be reclaimed to agricultural usage, all A and B horizon soil shall be ripped to a depth of three (3) feet after every two (2) foot layer of soil is laid down, in order to minimize compaction.

Section 10-5.601. Applications: Contents. [excerpt]

- (c) Site-specific technical studies, performed by qualified professionals in the appropriate area of expertise, shall provide specific proposals for inclusion in the reclamation plan to address the following potential environmental impacts:
 - (3) A geotechnical study to evaluate the proposed final slopes to ensure that they will be stable once mining has been completed and that the slopes possess an adequate factor of safety. Measures shall be included within the study to ensure slope stability and maintenance.

Section 10-5.1202. Inspections: Annual.

At least once every year, the Director shall conduct an inspection of each surface mining operation to determine whether the operator is in compliance with the Act, the Regulations, and this chapter. Each inspection shall be conducted within six (6) months after receipt by the County of the operation's annual report, submitted pursuant to Section 2207 of the Public Resources Code, and may be combined with other site inspections, as appropriate.

Section 10-5.1204. Inspections: Designee.

Inspections shall be conducted by a state-licensed geologist, state-licensed civil engineer, state-licensed landscape architect, state-licensed forester, or a qualified County employee who is experienced in mined land reclamation (as described in the Act and related regulations) and experienced in activities governed by the Act, and who has not been employed by the mining operation in any capacity during the previous twelve (12) months.

4.5.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the changes in the proposed project's potential impacts related to geology and soils, mineral resources, and paleontological resources. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The standards of significance used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. A geology and soils, mineral resources, and/or paleontological impact is considered significant if the proposed project would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42;
 - ii) Strong seismic ground shaking;
 - iii) Seismic-related ground failure, including liquefaction; or
 - iv) Landslides.
- b) Result in substantial soil erosion or the loss of topsoil.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- g) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- h) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.
- i) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to geology and soils, mineral resources, and paleontological resources.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is an explanation (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a significant effect on geology and soils, mineral resources, and paleontological resources if it would result in:

- Exposure of people or property to geologic hazards, including but not limited to:
 - Fault rupture on active faults,
 - Seismic shaking (accelerations greater than 0.1g),
 - Seismically-induced ground failure, including liquefaction,
 - Seismically-induced wave,
 - Landslides or mudflows (including excavated slopes),
 - Seismicity impacts are addressed by criterion “a” above.
 - Erosion, changes in topography, or unstable soil conditions,
 - Erosion impacts are addressed by criterion “b” above.
 - Subsidence of the land, or

- Expansive soils

Subsidence and expansive soils impacts are addressed by criteria “c” and “d” above.

- Destruction, covering, or modification of unique geologic or physical features.

Impacts to unique geologic features are addressed by criterion “f” above

- Result in the loss or availability of a known mineral resource that would be of future value to the region.

Impacts associated with the loss of known mineral resources are addressed by criteria “g” and “h” above

- Disturb paleontological resources. (From 1996 EIR Section 4.11 Cultural Resources)

Impacts associated with the loss of paleontological resources are addressed by criterion “f” above

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are summarized in Table 4.5-1. The table provides a discussion of the status of each mitigation measure.

Table 4.5-1: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.3-1	Expected seismic shaking at the project could result in ground failures and damage to reclamation features. This is considered to be a significant impact.	Mitigation Measure 4.3-1a/Condition of Approval No. 32 ^a requires: “Implement the performance standards included in Sections 10-5.504, 10-5.505, 10-5.512, and 10-5.526 of the County Surface Mining Reclamation Ordinance.” This mitigation measure applies to the proposed project and will continue to be implemented.
4.3-2	Potential failure and/or erosion of slopes could result in unstable slope conditions or adverse sedimentation of open water bodies. This is considered to be a significant impact.	Mitigation Measure 4.3-2a/ Condition of Approval No. 33 ^a requires: “Compliance with Mitigation Measure 4.3-2a of the OCMP Program EIR.” This measure corresponds to Sections 10-4.406, 10-4.413, and 10-4.431 of the County Off-Channel Surface Mining Ordinance; and Sections 10-5.507, 10-5.508, and 10-5.530 of the County Surface Mining Reclamation Ordinance. This mitigation measure applies to the proposed project and will continue to be implemented.

4.3-3	Aggregate extraction proposed by the project would result in the decreased availability of aggregate resources. This is considered to be a less-than-significant impact.	No mitigation measures were required because the project allowed for mining of aggregate resources thus increasing availability.
4.3-4	Erosion, failure, or overtopping of the channel bank separating the proposed mining areas from the active channel of Cache Creek could result in flooding of the pits and potential permanent inundation of the mining or reclaimed lower agricultural fields. This is considered to be a significant impact.	<p>Mitigation Measure 4.3-4a/Condition of Approval No. 34^a requires:</p> <p>“The County shall revise the CCRMP channel boundary in the vicinity of the site to reflect the Cunningham Engineering (1995) 100-year floodplain boundary. The hydraulic model used to determine the boundary assumes replacement of the Capay Bridge with a three-span bridge. If this assumption changes, additional HEC-2 modeling shall be required to establish the revised CCRMP boundary. If this boundary changes significantly upon modeling, additional review may be required.”</p> <p>Resolution No. 96-181 was approved by the Board of Supervisors on November 25, 1996, revising the CCRMP channel boundary to reflect the 100-year floodplain calculated by Cunningham Engineering. The Capay Bridge was built with three spans, as assumed in the hydraulic model included in the Operator’s project description. This condition and mitigation measure is implemented and fully discharged.</p> <p>Mitigation Measure 4.3-4(b)/Condition of Approval No. 35^a requires:</p> <p>“Portions of the northern margin of Phases 2, 3, 5, 6, and 7 shall be redesigned to provide a minimum 200-foot setback from the existing Cache Creek stream bank, in conformance with the requirements of Section 10-4.429 of the County Off-Channel Surface Mining Ordinance. The revised project design shall be submitted prior to the commencement of mining within Phase 3 and shall be consistent with the recommended slope design presented in the current application. If the redesigned project results in changes in any other mining area boundaries, additional CEQA review may be required.”</p> <p>Revised mining and reclamation plans prepared by Cunningham Engineering were submitted to staff by the Operator on April 24, 1997, showing the minimum 200-foot setback between the channel boundary and the edge of proposed mining. This mitigation measure will continue to be implemented. Subsequently, the County has identified various encroachments into the 200-foot buffer from time to time and required the operator to resolve them. A history of these corrective actions is provided in Chapter 3.0, Project Description. Impact 4.6-6 identifies a new mitigation measure</p>

		<p>requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area.</p> <p>Mitigation Measure 4.3-4c/Condition of Approval No. 36^a requires:</p> <p>“The portions of the levee in these areas could be raised to provide 100-year flood protection for these areas. Prior to raising the levee, a hydraulic analysis prepared and signed by a licensed engineer, demonstrating that off-site flooding impacts would not be created, must be submitted to the County for review. This mitigation measure would be consistent with the proposed project and the requirements of the OCMP. Any levee work performed shall be completed prior to the commencement of mining within the affected phases.”</p> <p>A hydraulic analysis was prepared by Cunningham Engineering on April 22, 1997, showing that the raised levee flood protection measures would increase the base flood elevation by less than 0.1 feet. This indicated that the proposed work would not have any significant off-site flooding impacts. In addition, at the County’s request, Cunningham Engineering verified compliance with this condition and summarized its findings in a report titled, “Cache Creek: Hydraulic Analysis of the CEMEX Reach” (March 10, 2016), which was provided to the County. Cunningham demonstrated that the 100-year water surface is effectively contained within Cache Creek along the CEMEX Reach. This analysis was reviewed and confirmed by the TAC Hydraulic Engineer. This condition is implemented and fully discharged.</p> <p>Mitigation Measure 4.3-4d/Condition of Approval No. 37^a requires:</p> <p>“Implement Mitigation Measure 4.3-3a of the OCMP EIR. Specifically, the applicant shall conduct annual monitoring and maintenance of the channel banks and levees at the northern margin of the project site during the mining and reclamation period. The monitoring shall be conducted by a licensed engineer and shall minimally include visual inspection of channel banks and levees for evidence of erosion or slope instability. Evidence of erosion shall include, but not be limited to, the existence of oversteepened banks and loss of vegetation. Evidence of slope instability shall include formation tension cracks, arcuate scarps, or unexcavated benches.</p> <p>The annual report of channel bank and levee conditions shall be submitted to the Yolo County</p>
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	<p>Community Development Director with the Annual Mining and Reclamation Report. The report shall identify the location (on scaled maps and photographs), the estimated area and volume of eroded materials or slope failure, a determination of the cause(s) of erosion or slope failure, and recommendations for remedial action. Recommended remedial actions shall be implemented prior to November 1 of each year.”</p> <p>The operator submits an annual report on monitoring for County review and acceptance. In addition, the County annually inspects the site. The 2016 analysis (confirmed by the County TAC hydrologic engineer) does show the 100 year flow is contained in Cache Creek. Subsequent annual monitoring reports confirm that no new erosion has occurred.</p> <p>Mitigation Measure 4.3-4e/Condition of Approval No. 38^a requires:</p> <p>Following reclamation, the YCCDA shall determine, on the basis of inspection of the performance of the channel banks and levees during the mining and reclamation period, the need for continued channel bank and levee monitoring and reporting. The landowner shall be responsible for continued monitoring and maintenance. A restriction shall be placed on the deed for the underlying property requiring continued inspection and maintenance of channel banks and levees, and allowing access by the County for same.</p> <p>This mitigation measure applies to the proposed project and will continue to be implemented.</p> <p>Mitigation Measure 4.3-4f/Condition of Approval No. 39^a requires:</p> <p>“The proposed project design shall be revised to provide a biotechnical bank protection design to replace the proposed placement of rip rap on that section of the south bank of Cache Creek extending 1,500 feet downstream from the 1-505 bridge Unless engineering evaluations demonstrate that riprap must be used to control erosion. The proposed bank protection shall be submitted to the Yolo County Community Development Agency and Caltrans for approval prior to the commencement of mining in Phase 7.”</p> <p>A biotechnical bank protection solution was submitted to the County and approved in June 1997. The project was completed in September 1998. This condition is implemented and fully discharged. Maintenance and monitoring are ongoing.</p>
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		<p>Mitigation Measure 4.3-4g/Condition of Approval No. 40^a requires:</p> <p>“In compliance with Section 10-4.429 and 10-5.506, mining within Phase 7 shall not be conducted within 700 feet of the existing stream bank until stream bank stabilization is provided for that portion of the south bank of Cache Creek upstream from the 1-505 bridge. The bank protection shall be performed in accordance with the guidelines presented in the Cache Creek Resource Management Plan and Cache Creek Improvements Program. The proposed bank protection design shall be submitted to the Yolo County Community Development Agency for approval prior to the commencement of mining in Phase 7.”</p> <p>The applicant has proposed to remove Phase 7 from the mining approvals which would eliminate the need for this measure/condition.</p> <p>Mitigation Measure 4.3-4h/Condition of Approval No. 41^a requires:</p> <p>“Recommendations of the geotechnical report (Kleinfelder, 1995) for stabilization of the south bank of Cache Creek shall be implemented within one year after the commencement of mining. Prior to the construction of the improvements, detailed plans identifying the type of stream bank protection shall be submitted to the County for review and approval. The bank protection plans shall incorporate biotechnical methods of bank stabilization when appropriate for erosion control.”</p> <p>The operator installed the bank stabilization measures pursuant to Condition #39 in September 1998. This condition is implemented and fully discharged. Maintenance and monitoring are ongoing.</p> <p>Mitigation Measure 4.3-4i/Condition of Approval No. 42^a requires:</p> <p>“The operator shall enter into a Development Agreement with the County that commits the operator to participate in implementation of the Cache Creek Improvements Program for that portion of creek frontage owned or controlled by the applicant. Participation shall include, but not be limited to, contribution of equipment and labor for channel widening projects and channel maintenance activities recommended by the County.”</p> <p>Development Agreement No. 96-287 was executed between the County and the Operator on December 30, 1996. Section 3.1 of the agreement requires the</p>
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		<p>Operator to abide by the CCRMP. The condition is implemented and fully discharged. Maintenance and monitoring are ongoing. The Development Agreement will be amended to reflect the proposed project if approved.</p> <p>Mitigation Measure 4.3-4j/Condition of Approval No. 43^a requires:</p> <p>“Prior to the commencement of mining below the groundwater level, the applicant shall contact the California Division of Safety of Dams (DSD) for a determination on whether the alluvial separators that would be created by the project fall under DSD jurisdiction.”</p> <p>In a letter dated October 17, 1996, the Division of Dam Safety determined that the alluvial separators created by the project would not be subject to their jurisdiction. The condition is implemented and fully discharged.</p>
4.11-1	Proposed mining activities could disturb paleontological resources. This is considered a significant impact.	<p>Mitigation Measure 4.11-1a/Condition of Approval No. 72^a requires:</p> <p>Implement the performance standard included in Section 10-4.410 (Cultural Resources) of the County Off-Channel Surface Mining Ordinance.</p> <p>This mitigation measure will continue to be implemented and will apply if unknown paleontological resources are found.</p> <p>Mitigation Measure 4.11-1b/Condition of Approval No. 73^a requires:</p> <p>The operator shall implement a training program that alerts project employees involved with earthmoving as to the nature of paleontological and archaeological resources in the region, the laws that protect the resources, and responsibilities for reporting potential findings to appropriate authorities. This program shall be developed by a qualified cultural resource professional.</p> <p>CEMEX has reported that a training video was prepared by a qualified cultural resource professional and is shown to all employees on a regular basis. See Mitigation Measure 4.4-1 which would replace this measure.</p>

Source: Baseline Environmental Consulting, 2021.

Notes:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review as modified through February 11, 2021.

4.5.5 IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.5-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. The impact would be *less than significant*.

The project proposes to continue mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to fault rupture, strong seismic shaking, and liquefaction would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR, and would remain less than significant.

However, the project proposes modifications to the approved mining and reclamation plans related to mining and reclamation slopes (and potentially slope stability) that differ from those analyzed in 1996. These modifications include a change to the finish slope configurations below water in the mining pits. The approved 1996 mining and reclamation plans specified slopes that are 1.5:1 (horizontal:vertical) below water, extending from 5 feet below the average low groundwater to the bottom of the mine. The project proposes slopes that are 1:1 below water, extending from 5 feet below the average low groundwater to the bottom of the mine. This proposed increase in slope steepness could increase slope instability and the likelihood of slope failures.

Under the current mining and reclamation plan, CEMEX is permitted to mine to 2:1 above water transitioning to 1.5:1 beginning five feet below average low groundwater levels. This is consistent

with Sections 10-4.433 and 10-5.530. Under the proposed mining and reclamation plan, CEMEX proposes to mine to 2:1 above water transitioning to 1:1 beginning five feet below average low groundwater levels. The applicant has indicated that the proposed slope inclination under water is more consistent with the anticipated excavation angle of the clamshell the dredge. In addition, the modified slope inclination will maximize the resource recovery of the mine, consistent with Section 10-4.411.1 of the OCSMO that encourages excavation to the full depth of the resource. Maximizing resource recovery from the existing mining phases also reduces the short-term need to develop resources elsewhere.

The 1996 project was required to conduct a geotechnical evaluation of the proposed 1.5:1 slopes below water to demonstrate that these slopes would be stable (Mining Ordinance Section 10-4.431 and Reclamation Ordinance 10-5.504); and to conduct inspections of the backfilled slopes for damage following strong seismic events and conduct repairs, as needed (Mining Ordinance Section 10-5.505). After implementation of these measures, this impact was found to be less than significant in the 1996 EIR.

The proposed project is subject to the same requirements. Consistent with Mining Ordinance Section 10-4.431 and Reclamation Ordinance 10-5.504, the applicant has retained a geotechnical consultant (Geocon) to conduct a slope stability study of the proposed slope modification.¹⁷ Geocon assessed a final cut slope configuration of a maximum slope height of 70 feet and finish cut slopes, from surface to 5 feet below average low groundwater levels of 2:1, and finish cut slopes greater than 5 feet below average low groundwater levels of 1:1. Geocon concluded that these reclamation slope angles will be stable with adequate static (≥ 1.5) and seismic (≥ 1.1) factors of safety for the proposed end uses.¹⁸

In addition, under existing ordinances (and consistent with Mitigation Measure 4.3-1a from the 1996 EIR), the project would be required to conduct inspections of the backfilled slopes for damage following strong seismic events and conduct repairs, as needed (Mining Ordinance Section 10-5.505).

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial

¹⁷ Geocon Consultants, 2018. Op.cit.

¹⁸ Ibid.

increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.5-2: Result in substantial erosion or loss of topsoil. The impact would be *less than significant*.

As discussed in the 1996 EIR, mining activities at the site would result in the formation of moderately steep slopes around the perimeter of mining and reclamation areas. Under existing conditions, the topography of the project site is flat to gently sloping and the potential for erosion is generally low to negligible. When slopes are constructed in the soils and underlying sediments at the site, the potential for erosion would be increased. The 1996 EIR concluded that with implementation of Mitigation Measure 4.3-2a, which required compliance with erosion and drainage control measures included in the relevant ordinances, a potential impact related to substantial erosion was less than significant. As the proposed project would be required to continue to demonstrate compliance with these ordinances [Mining Ordinance Sections 10-4.406 (relating to benches), 10-4.413 (relating to drainage), and 10-4.431 (relating to slopes); and Reclamation Ordinance Sections 10- 5.507 (relating to drainage), 10-5.508 (relating to erosion control), and 10-5.530 (relating to slopes)], no new or more severe impacts related to erosion or loss of topsoil would occur under the proposed project. See Impact 4.6-6 in Section 4.6, Hydrology for discussion of erosive forces in the creek channel.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.5-3: Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The impact would be *less than significant*.

In general, the types of coarse-grained soils (which include abundant sand and gravel) that characterize the project site are not unstable, and not subject to liquefaction.¹⁹ There are several regulations in the County's mining and reclamation ordinances which ensure stability of the mining and reclamation slopes. Sections 10-4.431 and 10-4.433 of the Mining Ordinance require slopes adhere to specific slope angles and heights. Section 10-5.530 of the Reclamation Ordinance also regulates slope stability by requiring all proposed reclaimed slopes be evaluated and determined to be stable as by an engineering analysis.

In addition, the proposed land uses at the site, off-channel surface mining and post-mining reclamation to open space, are not particularly susceptible to unstable soil hazards, and therefore impacts related to unstable soils are less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

¹⁹ Geocon Consultants, 2018. Op.cit.

Impact 4.5-4: Be located on expansive soils, as defined in Table 18-1-B of the California Building Code, creating substantial risks to life or property. The impact would be *less than significant*.

Expansive soils contain high proportions of clay and alternately absorb and release large amounts of water during wet and dry cycles. When structures are built on expansive soil, foundations may rise during the wet season, resulting in cracked foundations, distorted frameworks, and warped windows and doors.

The Natural Resources Conservation Service (NRCS) delineates soil units and compiles soils data as part of the National Cooperative Soil Survey. Based on the NRCS soil survey, the project site soils are predominately composed of Sycamore silt loam and Yolo silt loam. These soils, which do not have a high expansion potential, have been largely disturbed (e.g., removed and stockpiled) and the underlying subsoils and geologic deposits, which are composed of sand and gravel, have little to no expansion potential. In addition, the project does not propose construction of new structures with shallow foundations that would be susceptible to expansive soil hazards, and therefore impacts related to expansive soils are less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.5-5: Directly or indirectly destroy a unique paleontological resource. The impact would be *significant*.

As described in the 1996 EIR and the documentation of recent fossil discoveries,²⁰ the numerous fossil finds in the area, indicate that the Cache Creek area (and the project site in particular) may contain fossil-bearing geologic deposits. Paleontological resources are likely to occur in the

²⁰ LSA Associates, 2019. Op.cit.

project site, and disturbance of these resources was considered a significant impact in the 1996 EIR. The 1996 EIR required implementation of:

*Mitigation Measures 4.11-1a/Condition of Approval No. 72:
Implement the performance standard included in Section 10-4.410 (Cultural Resources)
of the County Mining Ordinance.*

and:

*Mitigation Measure 4.11-1b/Condition of Approval No. 73
The operator shall implement a training program that alerts project employees involved
with earth-moving as to the nature of paleontological and archaeological resources in the
region, the laws that protect the resources, and responsibilities for reporting potential
findings to appropriate authorities. This program shall be developed by a qualified cultural
resource professional).*

Off-Channel Surface Mining Ordinance Section 10-4.410 states:

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

Continued implementation of County regulations and Mitigation Measure 4.11-1a (Condition of Approval No. 74) would require that all construction personnel be informed about the procedures for stopping work and notifying the County in the event that there is an unanticipated discovery of paleontological materials. In the event that an inadvertent discovery of buried paleontological resources occurs during excavation activities, the project applicant would be required to implement the provisions of Mining Ordinance Section 10-4.410 and the conditions of approval. To modernize the 1996 EIR, a new mitigation measure is identified below, thus ensuring, this would result in a less-than-significant impact.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there are changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact. These changes in circumstances are a result of County's regulations that provide more effective mitigation for unknown paleontological discoveries.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measures identified below would reduce this impact to a less-than-significant level.

Mitigation Measure 4.5-5

In addition to compliance with Section 10-4.410 of the Mining Ordinance, the following new requirements shall be implemented for the proposed project to reduce potential impacts associated with a substantial adverse change in the significance of a paleontological resource to a less-than-significant level. This measure together with Mitigation Measure 4.4-1 replace Conditions of Approval #73 and 74.

Within six months of approval, the operator shall retain a qualified professional, subject to approval by the County, to develop and implement a contractor paleontological awareness training program. The program will provide resource sensitivity training regarding ground disturbing activities, discovery of paleontological resources, required protocols and notifications, and information about other related treatments or issues that may arise if paleontological resources are discovered during project construction. All employees involved with ground disturbance and other related construction activities shall complete this training annually.

Significance After Mitigation:

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 4.5-6: The loss of availability of a known mineral resource that would be of value to the region and the residents of the State. The impact would be *less than significant*.

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. The loss of availability of this resource could occur, for example, if urbanization was allowed to encroach on the resource zone, eliminating access to the resource due to the presence of high-value improvements at the surface.

Under the approved project, extraction of up to 32.17 million tons of aggregate could occur between 1997 and 2027 (the approved 30-year mining period) (see Table 3-3). Under the proposed project, the total tonnage mined, and the duration of mining would increase to up to 53.54 million tons through 2047 (see Table 3-6).

Resource extraction under both the approved project and the proposed project would result in the net reduction of available Portland Cement Concrete grade aggregate resources within the lower Cache Creek basin as a result of the harvesting and use of these resources. However, implementation of the proposed project would ensure that the full extent of the resources that can be feasibly removed occurs prior to final reclamation of the site to approved reclaimed uses. Whereas, under the project as approved, feasibly minable resources would remain in place. These resources would be utilized, as envisioned and in accordance with the regulations and primary objectives of the CCAP (in particular the OCMP portion of the program), which are to allow for the extraction of these sand and gravel resources while recognizing that there are other resources that require recognition and protection. As a mining plan, the OCMP ensures the preservation and regulation of known mineral resources and would not cause the loss of the availability of the resource.²¹ Therefore, the potential impact related to a loss of availability of a known mineral resource of regional value is less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

²¹ Yolo County. 2019. Cache Creek Area Plan Update Final EIR. Certified December 17, 2019.

Impact 4.5-7: The loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The impact would be *less than significant*.

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

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.5-8: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to geology and soils, mineral resources, and paleontological resources. The impact would be *less than significant*.

Table 4.5-2 below provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to geology and soils, mineral resources, and paleontological resources. The policies and regulations identified in the table are those that have been revised or put into effect since the 1996 EIR, as the underlying CEMEX mining project has been determined to be consistent with County program policies and regulations.

The proposed project proposes to formalize use of the eastern 31.9 acres of Phase 2 for stockpiles and construction material recycling. Figure 3-12 identifies all areas approved, currently used, and proposed for use to stockpile resource material. The area identified to be used for stockpiles under the existing approvals totals 27.1 acres (shown in green). The proposed project

would add 25.1 acres (shown in red) and the 31.9 eastern Phase 2 portion, for a total increase of 57.0 new acres. Therefore, the total area for stockpiles (existing and future) would be 84.1 acres, comprised of the 27.1-acres existing stockpile area plus the 57.0-acre proposed new stockpile area. A new condition of approval has been identified requiring quarterly inspections of soil management including management of stockpile areas. This will ensure appropriate oversight and coordination regarding soil management and stockpile usage, pursuant to County regulations and approvals.

In general, the project proposes to continue mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to fault rupture, seismic shaking, liquefaction, unstable soils, erosion, and slope instability would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR and would remain less than significant. The 1996 EIR found that the 1996 project was consistent with applicable plans, policies, and regulations. As the proposed project is substantially similar, and with implementation of the mitigation measure identified below. As shown in Table 4.5-2, the project is consistent with applicable plans, policies, and regulations.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.5-2: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy HS-1.1 Regulate land development to avoid unreasonable exposure to geologic hazards.</p>	As discussed above, impacts related to geologic hazards would be less than significant. Therefore, the project would be consistent with this policy.
<p>Policy HS-1.3 Require environmental documents prepared in connection with CEQA to address seismic safety</p>	As discussed in Impact 4.5-1 above, a Slope Stability Evaluation was prepared to evaluate the seismic impacts associated with the slopes of the

<p>issues and to provide adequate mitigation for existing and potential hazards identified.</p>	<p>mining and reclamation phases. Therefore, the project would be consistent with this policy.</p>
<p>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.</p>	<p>The proposed project would result in continued operation of an existing aggregate mine and mining activities in order to meet the economic needs of the County.</p>
<p>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.</p>	<p>The proposed project would result in the continued production of aggregate resources from the site. All relevant environmental issues associated with the proposed mining and reclamation activities, including impacts to recreation, wildlife, agriculture, aesthetics, and flood control, are discussed throughout this Draft SEIR. Where applicable, mitigation is provided to reduce potential impacts to the maximum extent feasible. Therefore, the project would be consistent with this policy.</p>
<p>Policy CO-3.2 Ensure that mineral extraction and reclamation operations are compatible with land uses both onsite and within the surrounding area, and are performed in a manner that does not adversely affect the environment.</p>	<p>Impacts related to the creation of land use incompatibilities were initially addressed in the 1996 EIR. The project would continue an existing mining operation and therefore would not introduce a new land use that could create potential land use incompatibility. As discussed in Section 4.9 of this Draft SEIR, the project would have no impact in terms of conflicting with any applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. As such, the project would be consistent with this policy.</p>
<p>Policy CO-3.5 Preserve and protect the County's unique geologic and physical features, which include geologic or soil "type localities", and formations or outcrops of special interest.</p>	<p>The project site is underlain by Holocene-aged stream channel deposits typical of the Cache Creek area. Drill hole logs demonstrate that the soil layers are relatively uniform, which is consistent with the alluvial nature of the area. The project site is currently used for mining and agricultural production, which is common within Yolo County and the project area. Consequently, the project site does not contain any unique geologic or physical features that are not found elsewhere in the County or the Cache Creek Area. Considering the geologic and physical setting of the project site, the project would not inhibit preservation or protection of any unique physical features, and, consequently, the project would comply with this policy.</p>
<p>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)</p>	<p>The State Department of Conservation has identified the project site as being in the MRZ-2 zone, meaning that significant mineral deposits are present or that a high likelihood for their presence exists. Under the proposed project, these mineral deposits would be available for future extraction. Accordingly, the project would not result in the loss of availability of mineral resources. The project would comply with this action.</p>

<p>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)</p>	<p>The proposed project would involve extraction of aggregate deposits within the Cache Creek area in a manner that would be consistent with the CCAP. Thus, the project would be considered to comply with this action.</p>
<p>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)</p>	<p>Mining at the project site was already underway when the CCAP was developed, and therefore mining at the site was considered by CCAP. Reclamation of the project site would include establishment of riparian habitat within the project site. Impacts to ground and surface water are analyzed in Chapter 4.6, Hydrology and Water Quality. The project proposes to dedicate permanent lakes to the County, which will be used for future recreational and habitat uses, consistent with the CCAP and the Cache Creek Parkway Plan. Based on this, the project would comply with this action.</p>
<p>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. (Policy CO-3.1)</p>	<p>The project proposes to restore mined lands to productive agriculture and dedicate permanent lakes to the County, which will be used for future recreational and habitat uses, consistent with the CCAP and the Cache Creek Parkway Plan. Based on this, the project would comply with this action.</p>
<p>Action CO-A54 Implement the Cache Creek Area Plan (Policy CO-3.2).</p>	<p>As discussed throughout this Draft SEIR, the project would comply with the CCAP, and, as a result, be consistent with this action. Impact 4.6-6 identifies required mitigation to implement channel improvements and channel maintenance consistent with the CCAP, to address ongoing erosive forces in the channel.</p>
<p>Action CO-A63 Require cultural resources inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, require a mitigation plan to protect the resource before the issuance of permits. Mitigation may include:</p> <ul style="list-style-type: none"> • Having a qualified archaeologist or paleontologist present during initial grading or trenching; • Redesign of the project to avoid historic or paleontological resources; • Capping the site with a layer of fill; and/or • Excavation and removal of the historical or paleontological resources and curation in an appropriate facility under the direction of a qualified professional. (Policy CO-4.1, Policy CO-4.13) 	<p>The proposed project would be subject to the requirements of Section 10-4.410, Cultural Resources, of the Mining Ordinance. Section 10-4.410 contains specific standards for avoiding damage to cultural, historic, and paleontological resources, as well as assessing and preserving any resources discovered during mining activities. See also Mitigation Measures 4.4-1 and 4.5-1.</p>
<p>Action CO-A65 Require that when cultural resources (including non-tribal archeological and paleontological artifacts, as well as human remains) are encountered during site preparation or</p>	<p>Section 10-4.410 of the Mining Ordinance includes requirements that are substantively similar to the requirements included in this action. Because the project would be required to comply with Section 10-4.410 of the Mining Ordinance, the project</p>

<p>construction, all work within the vicinity of the discovery is immediately halted and the area protected from further disturbance. The project applicant shall immediately notify the County Coroner and the Planning and Public Works Department. Where human remains are determined to be Native American, the project applicant shall consult with the Native American Heritage Commission (NAHC) to determine the person most likely descended from the deceased. The applicant shall confer with the descendant to determine appropriate treatment for the human remains, consistent with State law. (Policy CO-4.1, Policy CO-4.11, Policy CO-4.12, Policy CO-4.13)</p>	<p>would comply with this action. See also Mitigation Measures 4.4-1 and 4.5-1.</p>
<p>Off-Channel Surface Mining Ordinance</p>	
<p>Section 10-4.403 The operator shall immediately notify the Director of any events such as fires, explosions, spills, land or slope failures, or other conditions at the site which could pose a hazard to life or property. Action shall be immediately undertaken to alleviate the hazard. The operator shall provide a written report of any such event, within thirty (30) days, which shall include, but not be limited to, a description of the facts of the event, the corrective measures used, and the steps taken to prevent a recurrence of the incident. Failure to provide this report shall initiate violation proceedings pursuant to Article 11. This condition does not supersede nor replace any requirement of any other governmental entity for reporting incidents.</p>	<p>Section 10-4.403 includes enforcement mechanisms that would ensure that any hazards are promptly reported to the County. Impacts 4.5-1 and 4.5-3 demonstrate that the proposed mining activity would not be anticipated to result in impacts such as collapse, subsidence, or landslide. Consequently, the project would comply with this section of the ordinance.</p>
<p>Section 10-4.406 During mining operations, a series of benches may be excavated in a slope provided that the excavations are made in compliance with the requirements of the state Mine Safety Orders (California Code of Regulations, Title 8, Subchapter 17). The vertical height and slope of the benches constructed for permanent reclaimed slopes shall not exceed maximum standards for the specific soil types presented in the California Code of Regulations, Title 8, Article 6. In general, vertical cut slopes between benches shall not exceed four (4) feet in height in topsoil and overburden sediments. Benching shall be allowed in cohesive soil (clay, sandy or silty clay, clayey silt) only. Slopes above the elevation of groundwater (determined at the time of the excavation by the level of exposed water in the excavation) that exceed the maximum vertical height shall be excavated and maintained at slopes not steeper than 2:1 (horizontal:vertical). Slopes located five (5) feet or less below the average summer low groundwater level shall not be steeper than 2:1 (horizontal:vertical). Slopes located more than five</p>	<p>The proposed project was subject to a Slope Stability Evaluation. The results of the analysis are relied upon to support the determinations presented within this chapter, specifically, those presented in Impacts 4.5-1 regarding the design of cut slopes and benches. Preparation of a Slope Stability Evaluation fulfills the requirements of Section 10-4.406.</p>

<p>(5) feet below the average summer low groundwater level shall not be steeper than 1:1 (horizontal to vertical).</p> <p>Vertical cut slopes in excess of four (4) feet in height may be approved for the development of special habitat (e.g., bank swallows) if a site specific slope stability analysis, performed by a licensed engineer, indicates that the slope does not exceed critical height for the on-site soil conditions. Projects proposing such slopes shall submit a long term maintenance plan to ensure that the function of the slopes as habitat is met.</p>	
<p>Section 10-4.410</p> <p>(a) All resource records shall be checked for the presence of and the potential for prehistoric and historic sites. Damaging effects on cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified professional prior to the commencement of mining operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the Agency, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.</p> <p>(b) If human skeletal remains are encountered during excavation, all work within seventy-five (75') feet shall immediately stop, and the County Coroner shall be notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate Native American community identified by the Native American Heritage Commission shall be contacted, and an agreement for treating or disposing of, with appropriate dignity, the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75') feet shall immediately stop and the Director shall be notified at once. Any cultural resources found on the site shall be recorded by a</p>	<p>See discussion of Impact 4.5-5. In the event of the inadvertent discovery of prehistoric, historic, paleontological resources or human remains, the project would implement the provisions of Mining Ordinance Section 10-4.410 and new Mitigation Measure 4.5-5. Therefore, the project would be consistent with this regulation.</p>

<p>qualified archaeologist and the information shall be submitted to the Agency. (§ 1, Ord. 1190, eff. September 5, 1996)</p>	
<p>Section 10-4.431 Except where benches are used, all banks above groundwater level shall be sloped no steeper than 2:1 (horizontal:vertical). Proposed steeper slopes shall be evaluated by a slope stability study, prepared by a Registered Civil Engineer, Certified Engineering Geologist, or Professional Geologist. Slopes below the groundwater level shall be no steeper than 1:1 (horizontal:vertical). Slopes located five (5) feet or less below the summer low groundwater level shall not be steeper than 2:1 (horizontal:vertical). This section applies only to final/reclaimed slopes and not to active mining faces.</p>	<p>A Slope Stability Evaluation was prepared that assessed a final cut slope configuration of a maximum slope height of 70 feet and finish cut slopes, from surface to 5 feet below average low groundwater levels of 2:1, and finish cut slopes greater than 5 feet below average low groundwater levels of 1:1. The geotechnical engineering firm concluded that these reclamation slope angles will be stable with adequate static (≥ 1.5) and seismic (≥ 1.1) factors of safety for the proposed end uses. As discussed under Impact 4.6-1, the stability of the proposed slopes has been evaluated in the Slope Stability Evaluation and would comply with the standards established in the Mining Ordinance. Thus, the project would be consistent with this regulation.</p>
<p>Section 10-4.432 Soil shall be cut in maximum depths in order to minimize traffic and limit compaction. The handling and transportation of soil shall be minimized. To the extent feasible, all handling of topsoil shall be accomplished when the soil is dry in order to avoid undue compaction.</p>	<p>The proposed project would stockpile soil on the project site in order to minimize transport of soil. All topsoil would be handled when the soil is dry. Therefore, the project would be consistent with this regulation.</p>
<p>Section 10-4.433 Soil stockpiles. Topsoil, subsoil, and subgrade materials in stockpiles shall not exceed forty (40) feet in height, with slopes no steeper than 2:1 (horizontal:vertical). Stockpiles, other than aggregate stockpiles, shall be seeded with a native vegetative cover to prevent erosion and leaching. The use of topsoil for purposes other than reclamation shall not be allowed without the prior approval of the Director.</p> <p>Slopes on stockpiled soils shall be graded to 2:1 (horizontal:vertical) for long-term storage to prevent use by bank swallows. At no time during the active breeding season (May 1 through July 31) shall slopes on stockpiles exceed a slope of 1:1, even on a temporary basis. Stockpiles shall be graded to a minimum 1:1 slope at the end of each work day where stockpiles have been disturbed during the active breeding season.</p>	<p>As described in the Initial Study for the 2022 CEMEX Minor Modification (ZF #2022-0037), the applicant has completed and/or demonstrated ongoing compliance with Conditions of Approval No. 60 and 80, which require implementation of Mining Ordinance Section 10-4.433 related to soil stockpiles. Continued compliance with Section 10-4.433 is included in the proposed project and required by existing regulation. Mitigation Measure 4.5-1 has been identified to improve soil management.</p>
<p>Section 10-4.434 Technical report recommendations. The recommendations contained within each technical report submitted with a surface mining permit application shall be consistent with the OCMP and with all other technical reports submitted. The recommendations of all technical reports shall be implemented.</p>	<p>The Slope Stability Evaluation prepared for the proposed project has been discussed throughout this chapter. All recommendations in the report would be incorporated into the proposed project. Therefore, the project would be consistent with this regulation.</p>

Reclamation Ordinance	
<p>Section 10-5.530 All final reclaimed slopes shall have a minimum safety factor equal to or greater than the critical gradient as determined by an engineering analysis of the slope stability. Final slopes less than five (5) feet below the average summer low groundwater level shall be designed in accordance with the reclaimed use and shall not be steeper than 2:1 (horizontal:vertical). Reclaimed wet pit slopes located five (5) feet or more below the average summer low groundwater level shall not be steeper than 1:1 (horizontal:vertical), in order to minimize the effects of sedimentation and biological clogging on groundwater flow, to prevent stagnation, and to protect the public health.</p> <p>The maximum slope angle for all final reclaimed slopes shall be determined by slope stability analysis performed by a Licensed Geotechnical Engineer or Registered Civil Engineer and submitted with any mining and reclamation application for review by the Director. The slope stability analysis shall conform with industry standard methodologies regarding rotational slope failures under static and pseudostatic (seismic) conditions. The minimum factor of safety for all design reclamation slopes located adjacent to levees or below existing structures shall not be less than 1.5 for static and 1.1 for pseudostatic (seismic) conditions. Other reclamation slopes shall meet a minimum factor of safety that is consistent with the post-reclamation use proposed for the mining area.</p>	<p>As discussed throughout this chapter, the proposed project proposes slope angles consistent with the requirements set forth by the County. As such, the proposed project would be consistent with this regulation.</p>

Source: *Baseline Environmental Consulting, 2021.*

Notes:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review. As modified through February 11, 2021.

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4.6 HYDROLOGY AND WATER QUALITY

4.6.1 INTRODUCTION

This Hydrology and Water Quality section of the Draft SEIR describes the existing drainage patterns on the project site, including current stormwater flows and stormwater infrastructure. The section also evaluates potential impacts of the proposed project with respect to changes in on-site drainage patterns, degradation of water quality, changes in groundwater levels, and increases in on- and off-site flooding. Information for the section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR⁴ and the following regional and project-specific reports:

- Cache Creek: Hydraulic Analysis of the CEMEX Reach Memorandum, prepared by Cunningham Engineering Corporation (CEC), March 10, 2016.⁵
- Groundwater Assessment for Mining Permit and Reclamation Plan Amendment, prepared by Luhdorff and Scalmanini Consulting Engineers (LSCE), February 2019.⁶
- Estimation of Average High Groundwater Levels CEMEX Madison Plant, Yolo County Memorandum, prepared by Luhdorff and Scalmanini Consulting Engineers (LSCE), November 2016.⁷
- Estimation of Average Low Groundwater Levels CEMEX Madison Plant, Yolo County Memorandum, prepared by Luhdorff and Scalmanini Consulting Engineers (LSCE), April 2017.⁸
- Cache Creek Riparian Depressions Grading and Hydrology Letter Report, Prepared by Zentner Planning & Ecology, December 2017.⁹
- Cache Creek Off-Channel Aggregate Mining Ponds – 2018 Mercury Monitoring, Final Report, Prepared by Slotton and Ayers, May 2020.¹⁰

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

⁵ Cunningham Engineering Corporation, 2016. Hydraulic Analysis of the CEMEX Reach Memorandum. March 10.

⁶ Luhdorff and Scalmanini Consulting Engineers (LSCE). 2018. Groundwater Assessment for Mining Permit and Reclamation Plan Amendment. February.

⁷ Luhdorff and Scalmanini Consulting Engineers (LSCE). 2016. Estimation of Average High Groundwater Levels CEMEX Madison Plant, Yolo County Memorandum. November.

⁸ Luhdorff and Scalmanini Consulting Engineers (LSCE). 2017. Estimation of Average Low Groundwater Levels CEMEX Madison Plant, Yolo County Memorandum. April.

⁹ Zentner Planning & Ecology. 2017. Cache Creek Riparian Depressions Grading and Hydrology Letter Report. December.

¹⁰ Slotton, D.G., Ayers, S.M., 2020. Cache Creek Off-Channel Aggregate Mining Ponds – 2018 Mercury Monitoring, Final Report, May.

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of the proposed project. The following comments related to hydrological and water quality resources were expressed at the NOP public scoping meeting held on March 11, 2021 and in a letter submitted by the Central Valley Regional Water Quality Control Board dated March 29, 2021. NOP comment letters are included in Appendix B of this Draft SEIR.

- Potential impacts to both surface and groundwater quality.

This Draft SEIR section evaluates potential impacts to both surface and groundwater quality associated with the proposed project.

- Potential impacts of mining and post-reclamation lakes on groundwater levels and adjacent wells.

This Draft SEIR section describes the results of required ongoing groundwater level monitoring activities, which demonstrate that no significant impact to groundwater levels related to the project would occur.

- The letter includes a description of the permits that might be needed depending on the characteristics of the proposed changes to the existing project.

The CEMEX mine is an entitled and pre-existing project. This Draft SEIR section identifies and evaluates the proposed project changes and identifies, as necessary, any revised or additional impacts related to water quality.

- Compliance with state water quality permitting.

See response above.

The following subsections describe the existing hydrology and water quality setting of the lower Cache Creek area and specifically in the project site, the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.6.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions described in more detail in the above-referenced documents and includes updated information that has become available since those reports were completed. The regional environment described in the 1996 EIR has not changed significantly.

Description of Local Environment

Drainage and Flooding

Cache Creek and Willow Slough are the principal drainage features in the vicinity of the project site. Near the project site, Cache Creek is an incised creek with well-developed banks. In general, flood flows up to and including the 100-year event are contained within the channel banks of the creek. Willow Slough has a broader floodplain and routinely overtops its banks.

Site specific engineering analysis (i.e., HEC-RAS modeling) indicates that the 100-year water surface is effectively contained within Cache Creek along the CEMEX Reach.¹¹

Groundwater and Water Quality

Groundwater is an important resource in the entire County. In the CCAP area, uppermost groundwater, which occurs in alluvial deposits, is unconfined at depths ranging from 10 to 75 feet below the ground surface and flows toward the east.

Recognizing that off-channel mining operations would conduct mining operations below the groundwater table (creating the potential to affect groundwater quality), the Yolo County Off-Channel Mining Plan (OCMP) includes numerous policies and mitigation measures, respectively (which were subsequently adopted as part of the Off-Channel Surface Mining Ordinance (Mining Ordinance) designed to protect groundwater quality and reduce any potential impacts to a less-than-significant level. Section 10-4.417 of the Mining Ordinance requires the establishment of an on-site monitoring well network and ongoing collection of groundwater samples.

The groundwater monitoring well network at the project site presently consists of a total of 19 wells, including 15 dedicated observation wells and 4 production wells. Groundwater monitoring has been taking place in on-site wells at the project site since 1990, and the applicant's water quality engineering consultant has been preparing annual monitoring reports with cumulative data evaluation since 2003. Results of the ongoing monitoring efforts provide a site-specific data set that characterizes groundwater conditions in the vicinity of the project through time, including pre-mining conditions and conditions throughout mining and reclamation activities that have occurred to date. The existing data record shows no evidence or indication that the mining and plant operations have caused changes in groundwater levels or quality to date.¹²

4.6.3 REGULATORY CONTEXT

The 1996 EIR included descriptions of federal and state regulatory programs and regulations related to water quality and flooding, including the federal Clean Water Act, the State Regional Water Quality Control Board Basin Plan, SMARA, the County General Plan, and the OCMP and implementing ordinances. The laws and regulations that have been created or substantively updated since 1996 are described below.

¹¹ Cunningham Engineering Corporation, 2016. Hydraulic Analysis of the CEMEX Reach Memorandum. March 10.

¹² Luhdorff and Scalmanini Consulting Engineers (LSCE). 2018. Groundwater Assessment for Mining Permit and Reclamation Plan Amendment. February.

State Flood Legislation

In 2007, the state legislature enacted six interrelated bills to strengthen the linkage between local land use planning decisions and flood management practices. Senate Bills 5 and 17, and Assembly Bills 5, 70, 156, and 162 added or amended over 25 sections of the Government Code, Health and Safety Code, Public Resources Code, and Water Code. There was considerable overlap between these bills. Together they significantly modified floodplain planning and management at the state, regional, and local levels.

Among other things, these bills created the Central Valley Flood Protection Board (CVFPB), which superseded the State Reclamation Board; required preparation of the Central Valley Flood Protection Plan; established 200-year protection as the minimum urban level of flood protection in the Central Valley; required a variety of local general plan and zoning code amendments; and established restrictions on local approval of development agreements and subdivision maps in flood hazard zones within the Central Valley.

It is important to note, however, that notwithstanding the fact that Yolo County lies within the Central Valley, lower Cache Creek is identified by the state as a Designated Floodway under "Local Control." In correspondence dated July 14, 2005, the State Reclamation Board (since succeeded by the Central Valley Flood Protection Board) confirmed that authority for regulating "encroachments" into Cache Creek in the area upstream of I-5 is held by Yolo County and enforced through the Yolo County Flood Protection Ordinance. Therefore, the Central Valley Flood Protection Board does not have jurisdiction within the CCAP area or at the project site.

Groundwater Legislation

In 2015, a three-bill package known as the Sustainable Groundwater Management Act (SGMA) went into effect. This legislation does the following:

- Provides for sustainable management of groundwater basins;
- Enhances local management of groundwater consistent with rights to use or store groundwater;
- Establishes minimum standards for effective, continuous management of groundwater;
- Provides local groundwater agencies with the authority, technical, and financial assistance needed to maintain groundwater supplies;
- Avoids or minimizes impacts for land subsidence;
- Improves data collection and understanding of groundwater resources and management;
- Increases groundwater storage and removes impediments to recharge; and
- Empowers local agencies to manage groundwater basins, while minimizing state intervention.

SGMA mandates the creation of Groundwater Sustainability Agencies (GSAs) in groundwater basins defined as high or medium priority by the Department of Water Resources (DWR) by June 30, 2017. It also mandates the preparation of Groundwater Sustainability Plans (GSP) by January 2022, and implementation of a GSP for a 20-year period ending in 2042. Much of Yolo County lies within what is referred to as the Yolo Groundwater Subbasin, which is a high-priority basin.

The Water Resources Association of Yolo County (WRA) and Yolo County Farm Bureau have partnered to implement SGMA in Yolo County, and have coordinated with local public agencies for creating a GSA. Since spring 2016, a group of local public agencies have held numerous public meetings and governance workgroup discussions on how to comply with SGMA. These agencies have agreed to partner together and create a single GSA through a joint powers agreement (pursuant to California Government Code 6500).

The CCAP Update, under which the CEMEX mine operates, considered SGMA and opportunities for groundwater recharge among other public benefits of the plan to encourage recharge projects as possible community benefit projects.

2030 Countywide General Plan

Since the 1996 EIR was prepared and certified, the County has updated its General Plan. The 2030 Countywide General Plan contains the following goals, policies, and actions related to hydrology and water quality (these goals, policies, and actions would replace those included and discussed in the 1996 EIR):

Flood Hazards (Health and Safety Element)

- Goal HS-2: Flood Hazards. Protect the public and reduce damage to property from flood hazards.
- Policy HS-2: Manage the development review process to protect people, structures, and personal property from unreasonable risk from flooding and flood hazards.
- Policy HS-2.2: Ensure and enhance the maintenance and integrity of flood control levees.
- Policy HS-2.3: Actively update and maintain policies and programs to ensure consistency with State and federal requirements.
- Policy HS-2.4: Clearly communicate the risks, requirements, and options available to those who own land and live within the floodplain.
- Policy HS-2.6: Maintain the structural and operational integrity of essential public facilities during flooding.
- Policy HS-2.7: Manage the floodplain to improve the reliability and quality of water supplies.

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- Policy HS-2.8: Consider and allow for the ecological benefits of flooding within historic watercourses while balancing public safety and the protection of property.
- Action HS-A5: Require a minimum of 100-year flood protection for new construction, and strive to achieve 200-year flood protection for unincorporated communities. Where such levels of protection are not provided, require new development to adhere to the requirements of State law and the County Flood Damage Prevention Ordinance.
- Action HS-A12: Evaluate the feasibility of designating land as open space for future bypass systems to prevent flooding hazards. Work with State and Federal agencies to include such bypasses in the Central Valley Flood Protection Plan, where appropriate. Ensure that responsible agencies fund the purchase of flood easements where bypass systems are designated.
- Action HS-A13: Review development proposals to ensure that the need to maintain flood control capacity is balanced with consideration of the environmental health of watercourses that convey floodwaters so as not to cause significant erosion, sedimentation, water quality problems, or loss of habitat.
- Action HS-A15: Restrict proposed land uses within 500 feet of the toe of any flood control levee, including but not limited to the items listed below, unless site-specific engineering evidence demonstrates an alternative action that would not jeopardize public health or safety:
- Prohibit permanent unlined excavations;
 - Large underground spaces (such as basements, cellars, swimming pools, etc.) must be engineered to withstand the uplift forces of shallow groundwater;
 - Prohibit below-grade septic leach systems;
 - Engineered specifications for buried utility conduits and wiring;
 - Prohibit new water wells;
 - Prohibit new gas or oil wells;
 - Engineered specifications for levee penetrations; and
 - Require landscape root barriers within 50 feet of the toe.
- Action HS-A21: Private development of levees should be limited to those cases where the construction meets national levee standards, the project is in conformance with the State's comprehensive plan for flood damage reduction, and a public agency agrees to provide long-term maintenance of the levee.

Action HS-A22: Ensure that the upgrade, expansion, or construction of any flood control levee demonstrates that it will not adversely divert flood water or increase flooding.

Action HS-A37: Continue to work with the Flood Control District, the City of Woodland, other appropriate agencies and private landowners to develop strategies and pursue funding for the implementation of projects to improve flood protection for urban and rural residents along lower Cache Creek.

Water Resources (Conservation and Open Space Element)

Policy CO-5.7: Support mercury regulations that are based on good science and reflect an appropriate balancing of sometimes competing public values including health, food chain, reclamation and restoration of Cache Creek, sustainable and economically viable Delta agriculture, necessary mineral extraction, flood control, erosion control, water quality, and habitat restoration.

Policy CO-5.8: Support efforts to reduce the accumulation of methyl mercury in fish tissue in Cache Creek and the Delta, as well as the consumption of fish with high levels of methyl mercury.

Policy CO-5.12: Support the integrated management of surface and groundwater, stormwater treatment and use, the development of highly treated wastewater, and desalinization where feasible.

Policy CO-5.14: Require that proposals to convert land to uses other than agriculture, open space, or habitat demonstrate that groundwater recharge will not be significantly diminished.

Policy CO-5.17: Require new development to be designed such that nitrates, lawn chemicals, oil, and other pollutants of concern do not impair groundwater quality.

Policy CO-5.21: Encourage the use of water management strategies, biological remediation, and technology to address naturally occurring water quality problems such as boron, mercury, and arsenic.

Policy CO-5.23: Support efforts to meet applicable water quality standards for all surface and groundwater resources.

Policy CO-5.24: Pursue funding to remediate historic mines and other sources of mercury contamination on the Cache Creek watershed.

Policy CO-5.3: Strive to increase artificial recharge of important aquifers with surplus surface water supplies.

Action CO-A95: Work with the Central Valley Regional Water Quality Control Board and other State and federal agencies to implement mercury total maximum daily loads (TMDLs) for Cache Creek and to develop mercury TMDLs for the Delta and other Yolo County waterways where appropriate.

Action CO-A97: Continue to monitor water quality in Lower Cache Creek and annually make the resulting data publicly available.

Off-Channel Mining Plan

The following policies from the adopted Yolo County Off-Channel Mining Plan (OCMP) related to hydrology and water quality are applicable to the proposed project:

Goal 3.2-1 : Promote the conjunctive use of surface and groundwater to maximize the availability of water for a range of uses, including habitat, recreation, agriculture, water storage, flood control, and urban development.

Goal 3.2-2 : Maintain the quality of surface and groundwater so that nearby agricultural productivity and available drinking water supplies are not diminished.

Action 3.4-3: Include a groundwater monitoring program as a condition of approval for any surface mining and reclamation operation that proposes off-channel excavations that extend below the groundwater level. The monitoring program shall require regular groundwater level data, as well as a water quality monitoring program based on a set of developed standards.

Action 3.4-5: Require that surface mining operations demonstrate that proposed off-channel excavations extending below the groundwater level will not adversely affect the producing capacity or water quality of local active wells.

Goal 4.2-1: Recognize that Cache Creek is a dynamic stream system that naturally undergoes gradual and sometimes sudden changes during high flow events.

Goal 4.2-2: Coordinate land uses and improvements along Cache Creek so that the adverse effects of flooding and erosion are minimized.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to hydrology and water quality:

Section 10-4.416. Flood protection.

All off-channel surface mining operations shall be provided with a minimum one-hundred (100) year flood protection. Off-channel excavations shall be designed to minimize the potential for levee breaching and/or pit capture. In addition,

excavations shall be designed to prevent overtopping of channel banks or levees along Cache Creek and all tributaries and drainage channels (including, but not limited to, Willow Slough and Lamb Valley Slough).

The flood protection upgrades shall be designed and constructed to provide the necessary one hundred (100) year protection without creating a net increase of in upstream or downstream flooding elevations. Upstream flooding could be increased if additional levee construction serves to confine flows to a narrow width, thereby increasing the water surface elevation. Downstream flooding could be increased if floodplain storage areas were removed from the drainage system by constructing levees in areas where they did not exist before (or raising levees that are overtopped in floods up to the one hundred (100) year event). Where feasible, alternative or non-structural flood management designs (potentially using detention basins, infiltration galleries, and/or floodplain storage in noncritical areas) shall be incorporated. New development (such as buildings, levees, or dikes) located within the floodplain shall conform to all applicable requirements of the Yolo County Flood Protection Ordinance and the Federal Emergency Management Agency (FEMA).

Section 10-4.417. Groundwater monitoring programs.

All surface mining operations that propose off-channel excavations extending below the groundwater level shall develop and maintain a groundwater monitoring program consisting of two (2) components: water level measurements and water quality testing. A groundwater level monitoring program shall be initiated at least six (6) months prior to the removal of overburden. At a minimum, the groundwater level monitoring program shall consist of three (3) monitoring wells, with at least one well upgradient of the wet pit and one well downgradient of the wet pit. Monitoring programs for proposed mining areas exceeding one hundred (100) acres (total proposed mining area over the life of the project) shall include one additional well for each one hundred (100) acres of wet pit mining. Therefore, wet pit mining areas of one to ninety-nine (99) acres would require three (3) wells, one hundred (100) to one hundred ninety-nine (199) acres would require four (4) wells, two hundred (200) to two hundred ninety-nine (299) acres would require five (5) wells, and so on. These wells shall be distributed through the vicinity of the wet pit mining area and used for groundwater level measurements. Groundwater levels shall be collected from the monitoring wells on a quarterly basis for six (6) months prior to mining and for the duration of the mining period. All wellheads shall be surveyed with horizontal and vertical control to allow calculation of groundwater elevations and development of groundwater contour maps. Groundwater levels shall be measured with an accuracy of plus or minus 0.01 foot, at minimum.

Water quality in the vicinity of each active wet pit mining location shall be evaluated by analyzing samples from selected monitoring wells (one upgradient and one downgradient) and wet pit surface water sampling locations. Since mining may be

conducted in phases over a relatively long period of time, pit boundaries may change with time. Selection, and installation if necessary, of downgradient monitoring wells, which would be critical to adequately characterize the groundwater quality in the vicinity of the wet pits, shall be submitted by the operator for review and approval by the County. The selected monitoring wells shall be installed and sampled at least six (6) months prior to the removal of overburden. The downgradient wells shall be located as near to the active wet pit mining areas as is practical. The upgradient wells shall be located an adequate distance from the proposed mining area to ensure that the effect of the wet pit on water quality in the well would be negligible. The water samples from the wet pit shall be collected in a manner so as to ensure that they are representative of water quality within the wet pit. The minimum sampling schedule and required analyses are described below.

- (a) Groundwater level and pit water surface level measurements shall be performed quarterly in all wells for the duration of mining and reclamation.
- (b) For monitoring the groundwater quality of proposed wet pit mining, sample collection and analysis of physical, chemical, and biological constituents shall be conducted according to the following specifications:

- (1) *Prior to the removal of overburden.* One upgradient and one downgradient well shall be sampled at least six (6) months prior to the removal of overburden and again at the start of excavation. The samples shall, at minimum, be analyzed for general minerals; inorganics; nitrates; total petroleum hydrocarbons (TPH) as diesel and motor oil, benzene, toluene, ethylbenzene, and xylenes (BTEX); pesticides (EPA 8140 and 8150); and coliform (with E. coli confirmation).
- (2) *During wet pit mining and active reclamation.* The wet pit shall be sampled semiannually for the duration of mining and active reclamation. The samples shall, at minimum, be analyzed for general minerals; inorganics; nitrates; TPH as diesel and motor oil, BTEX; pesticides (EPA 8140 and 8150); and coliform (with E. coli confirmation).

One upgradient and one downgradient well shall be analyzed, at minimum, for general minerals; inorganics; nitrates; TPH as diesel and motor oil, BTEX; pesticides (EPA 8140 and 8150); and coliform (with E. coli confirmation). The wells shall be sampled according to the following schedule: semiannually for the first two (2) years, and annually every year thereafter.

- (3) *After active reclamation.* One year after all heavy equipment work has been completed in the vicinity of the pit, the TPH and BTEX

analyses may be discontinued. The wet pit and one upgradient and one downgradient well shall be sampled and analyzed for pH; temperature; nutrients (phosphorous and nitrogen); total dissolved solids; total coliform (with E. coli confirmation); and biological oxygen demand. This monitoring shall be conducted every two (2) years for a ten (10)-year period after completion of reclamation.

A report to the Agency and Department of Environmental Health shall be submitted within thirty (30) days of the required groundwater testing.

Additional tests and analysis shall be required only if a new condition is recognized that may threaten water quality or if the results of previous tests fall outside allowable ranges. If at any time during the monitoring period, testing results indicate that sampling parameters exceed Maximum Contaminant Levels (MCLs), as reported in the California Code of Regulations, or established background levels, a qualified professional shall evaluate potential sources of the contaminants. The evaluation shall determine the source and process of migration (surface or subsurface) of the contaminants. A report shall be submitted to the regulatory agencies (the Agency, Yolo County Department of Environmental Health, the Central Valley Regional Water Quality Control Board, and the U.S. Environmental Protection Agency) which identified, the source of the detected contaminants and specifies remedial actions to be implemented by the operator for corrective action. If it is determined that the source of water quality degradation is off-site, and the County and the RWQCB are in agreement with this conclusion, the operator shall not be responsible for corrective action.

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

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

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

Section 10-4.427. Protection of nearby drinking water wells.

If any off-channel excavation proposes to extend below the level of seasonal high groundwater, then six (6) months prior to the commencement of excavation below the average high groundwater level, the operator shall identify and locate all off-site municipal wells within one thousand (1,000) feet and all domestic wells within five hundred (500) feet of the proposed wet pit mining boundary. If active wells are identified, well characteristics (pumping rate, depth, and locations of screens) shall be determined. If wells are not located within one thousand (1,000) feet, the pre-mining impact evaluation shall be considered complete.

If wet pit mining is proposed within one thousand (1,000) feet of a municipal water supply or within five hundred (500) feet of a domestic water supply well, a capture zone analysis shall be conducted using the U.S. Environmental Protection Agency model WHPA (or a similar model of equal capability and proven reliability, as approved by the Director). The simulation shall assume thirty (30) days of continuous pumping of the water supply well (at its maximum probable yield) under analysis. A mining setback shall be established so that the capture zone and the pit do not coincide. Alternatively, the operator shall submit a written agreement that the well owner has agreed to relocate or redesign the well, or accept the potential impact (at no expense to the County). The analysis shall be prepared and signed by a Registered Civil Engineer or Certified Hydrogeologist and submitted to the County for review and approved at least six (6) months prior to the commencement of excavation below the seasonal high groundwater level.

Any new drinking water wells proposed for installation within one thousand (1,000) feet of an approved wet pit mining area shall be subject to review by the Yolo County Environmental Health Department. The County shall determine, based on site-specific hydrogeology and available water quality data, whether to approve the proposed well installation. Analysis of environmental impact for projects in the vicinity of the wet pits shall include consideration of potential water quality impacts on the open water bodies.

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

Section 10-4.429. Setbacks

All off-channel surface mining operations shall comply with the following setbacks:

- (a) New processing plants and material stockpiles shall be located a minimum of one thousand (1,000) feet from public rights-of-way, public recreation areas, and/or off-site residences, unless alternate measures to reduce potential noise, dust, and aesthetic impacts are developed and implemented;
- (b) Soil stockpiles shall be located a minimum of five hundred (500) feet from public rights-of-way, public recreation areas, and off-site residences, unless alternate measures to reduce potential dust and aesthetic impacts are developed and implemented;
- (c) Off-channel excavations shall maintain a minimum one thousand (1,000) foot setback from public rights-of-way and adjacent property lines of off-site residences, unless a landscaped buffer is provided or site-specific characteristics reduce potential aesthetic impacts. Where landscaped buffers are proposed, the setback for off-channel excavations may be reduced to a minimum of fifty (50') feet from either the property line or the adjoining right-of-way, whichever is greater. Where mining occurs within one thousand (1,000) feet of a public right-of-way, operators shall phase mining such that no more than fifty (50) acres of the area that lies within one thousand (1,000) feet of the right-of-way would be actively disturbed at any time, except where operations are adequately screened from public view. Where adequate screening exists in the form of mature vegetation and/or constructed berms that effectively block public views, the area of active disturbance within one thousand (1,000) feet of the right-of-way shall not exceed the area that is screened by more than fifty (50) acres at any one time. Actively disturbed areas are defined as those on which mining operations of any kind, or the implementation of reclamation such as grading, seeding, or installation of plant material are taking place.
- (d) Off-channel excavations shall provide a minimum fifty (50) foot setback from the neighboring property line to allow for access around the pit during mining and after reclamation for maintenance, safety, and other purposes.
- (e) Proposed off-channel excavations located within the streamway influence zone shall be set back a minimum of seven hundred (700) feet from the existing channel bank, unless it is demonstrated that a smaller distance will not adversely affect channel stability. Under no circumstances should off-channel excavations be located within two hundred (200) feet of the existing channel bank. Evaluations of proposed off-channel excavations

within seven hundred (700) feet of the channel bank shall demonstrate, at a minimum, the following:

- (1) The two-hundred (200) foot setback area does not include portions of the historically active channel.
- (2) The two-hundred (200) foot setback area does not include formerly mined lands separated from the active channel by levees or unmined areas less than two-hundred (200) feet wide (measured perpendicular to the active channel).
- (3) Acceptable channel hydraulic conditions (based on existing or site-specific hydraulic models) for the Cache Creek channel adjacent to the site and extending not less than one thousand (1,000) feet upstream and downstream of the site.
- (4) Acceptable level of erosion potential of the channel bank adjacent to the site based on predicted stream flow velocity and shear stress on bank materials during a 100-year flow and historical patterns of erosion.
- (5) Acceptable level of stability of the slopes separating the mining area from the creek channel based on an analytical slope stability analysis in conformance with Sections 10-4.426 and 10-5.517 of this title that includes evaluation of stability conditions during 100-year peak flows in the channel.
- (6) Appropriate bank stabilization designs, if needed, consistent with channel design recommendations of the Cache Creek Resource Management Plan or approved by the Technical Advisory Committee.
- (7) The condition of flood protection structures and the integrity of the land within the approved setback zone separating the mining areas and the channel shall be inspected annually by a Registered Civil Engineer and reported to the Director. The annual report shall include recommendations for remedial action for identified erosion problems (see also Reclamation Ordinance Section 10-5.506).

Approval of any off-channel mining project located within seven hundred (700) feet of the existing channel bank shall be contingent upon an enforceable agreement which requires the project operator to participate in the completion of identified channel improvement projects along the frontage of their property, consistent with the CCRMP and CCIP, including implementation of the Channel Form Template. The agreement shall require that

the operator provide a bond or other financial instrument for maintenance during the mining and reclamation period of any bank stabilization features required of the mining project. The agreement shall also require that a deed restriction be placed on the underlying property which requires maintenance of the streambank protection by future owners of the property. Maintenance of the bank stabilization features following completion of reclamation shall be the responsibility of the property owner.

- (f) Off-channel excavations shall be set back a minimum of twenty-five (25) feet from riparian vegetation; and
- (g) Recreational facilities shall be located a minimum of one hundred fifty (150) feet from private dwellings, with a landscaped buffer provided to reduce noise and maintain privacy, unless the dwelling is proposed to be an integral component of the recreational facility.
- (h) No mining activities shall occur within two thousand (2,000) feet of the community boundaries of Capay, Esparto, Madison, Woodland, and/or Yolo. This setback may be reduced by up to five hundred (500) feet when existing mature vegetation, proposed landscape buffers of a sufficient height and density to create a visual buffer (consisting of native species and fence-row habitat appropriate to the area), or other site-specific characteristics reduce potential incompatibilities between urban land uses and mining. Commercial mining shall not take place east of County Road 96.

Surface Mining Reclamation Ordinance

Title 10, Chapter 5 of the Yolo County Code contains the Surface Mining Reclamation Ordinance (Reclamation Ordinance), which provides the following requirements relevant to hydrology and water quality:

Section 10-5.503. Backfilled Excavations: Groundwater Flow Impacts.

The area of backfilled off-channel excavations extending below the groundwater table shall be minimized in order to reduce changes to groundwater levels and flow. Backfilled pits shall be oriented with regard to the direction of groundwater flow to prevent localized obstructions. If a backfilled off-channel excavation is proposed to penetrate either fifty (50') feet or one-half ($\frac{1}{2}$) into the saturated thickness of the shallow aquifer, then at least six (6) months prior to the commencement of excavation below the average high groundwater level, the applicant shall demonstrate in a manner consistent with the Technical Studies that the pit design will not adversely affect active off-site wells within one thousand (1,000) feet of the proposed pit boundary. If the application includes a series of backfilled pits, then the applicant shall also demonstrate that the cumulative effects

of the multiple backfilled pits will not adversely affect groundwater flow, if there are any active off-site wells within one thousand (1,000) feet of the pit boundaries.

The applicant shall demonstrate, using MODFLOW (or a similar model of equal capability and proven reliability, as approved by the Director), that the proposed pit design would not adversely impact active off-site wells within one thousand (1,000) feet of the proposed pit boundary or result in well failure.

Average, historic low groundwater levels, which represent the condition of maximum threat to water levels in the subject well, shall be used for this simulation. If an adverse impact is identified by the MODFLOW (or other approved model) simulation, the mining and reclamation plan shall be modified or the applicant shall submit a written agreement that the well owner has agreed to relocate or redesign the well, or accept the potential impact (at no expense to the County).

Site-specific aquifer testing shall be conducted, if needed, to determine aquifer properties for the required modeling

Section 10-5.507. Drainage.

Upon the completion of operations, grading and revegetation shall minimize erosion and convey storm water runoff from reclaimed mining areas to natural outlets or interior basins. The condition of the land shall allow sufficient drainage to prevent water pockets or undue erosion. Natural and stormwater drainage shall be designed so as to prevent flooding on surrounding properties and County rights-of-way.

Drainage and detention facilities within the proposed mining areas and vicinity shall be designed to prevent discharges to the wet pits and surface water conveyances (i.e., creeks and sloughs) from the 20-year/1-hour storm or less. For events greater than the 20-year/1-hour storm, runoff from around the perimeter of the mining areas shall be directed into surface water conveyances. Runoff from within the lowered mining area shall be directed away from wet pits to detention/infiltration areas. Drainage plans shall not rely solely on ditches and berms to direct runoff away from the wet pit. Without proper maintenance, berms and ditches may deteriorate with time and become ineffective. Drainage plans shall emphasize the grading of disturbed areas that results in broad gently slopes that drain away from the pits. Grading plans shall be reviewed by the County to evaluate compliance with drainage plan objectives prior to project approval.

In addition, a restriction shall be recorded on the deed that requires berms and ditches to be permanently maintained in a condition consistent with the final approval. The deed restriction shall require an inspection easement which allows County staff or other authorized personnel access for the inspection of berms and ditches. If the County determines that evidence of damage to those facilities exist, the County shall require that the owner have an inspection report for the property

prepared by a Registered Geologist or Registered Civil Engineer. The inspection report including recommendations for corrective action, if needed, shall be submitted to the Yolo County Community Development Agency. The property owner shall be required to implement recommended corrective action, if any.

Section 10-5.517. Mercury Bioaccumulation in Fish.

As part of each approved long-term mining plan involving wet pit mining to be reclaimed to a permanent pond, lake, or water feature, the operator shall maintain, monitor, and report to the Director according to the standards given in this section. Requirements and restrictions are distinguished by phase of operation as described below.

- (a) Mercury Protocols. The Director shall issue and update as needed “Lower Cache Creek Off-Channel Pits Mercury Monitoring Protocols” (Protocols), which shall provide detailed requirements for mercury monitoring activities. The Protocols shall include procedures for monitoring conditions in each pit lake, and for monitoring ambient mercury level in the lower Cache Creek channel within the CCAP planning area, as described below. The Protocols shall be developed and implemented by a qualified aquatic scientist or equivalent professional acceptable to the Director. The protocols shall identify minimum laboratory analytical reporting limits, which may not exceed the applicable response threshold identified in subsection (e) below. Data produced from implementing the Protocols shall meet or exceed applicable standards in the industry.
- (b) Ambient Mercury Level. The determination of the ambient or “baseline” fish mercury level shall be undertaken by the County every ten (10) years in years ending in 0. This analysis shall be undertaken by the County for use as a baseline of comparison for fish mercury testing conducted in individual wet mining pits. The work to establish this baseline every ten (10) years shall be conducted by a qualified aquatic systems scientist acceptable to the Director and provided in the form of a report to the Director. It shall be paid for by the mining permit operators on a fair share basis. The results of monitoring and evaluation of available data shall be provided in the report to substantiate the conclusions regarding ambient concentrations of mercury in fish within the lower Cache Creek channel within the CCAP planning area.
- (c) Pit Monitoring.
 - (1) Mining Phase (including during idle periods as defined in SMARA). The operator shall monitor fish and water column profiles in each pit lake once every year during the period generally between September and November for the first five (5) years after a pit lake is created. Fish monitoring should include sport fish where

possible, together with other representative species that have comparison samples from the creek and/or other monitored ponds. Sport fish are defined as predatory, trophic level four fish such as bass, which are likely to be primary angling targets and have the highest relative mercury levels. The requirements of this subsection apply to any pit lake that is permanently wet and navigable by a monitoring vessel. If, in the initial five (5) years after the pit lake is created, the applicable response threshold identified in subsection (e) is exceeded in any three (3) of five (5) monitoring years, the operator shall, solely at their own expense, undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).

- (2) Reclamation Phase. No monitoring is required after mining has concluded, during the period that an approved reclamation plan is being implemented, provided reclamation is completed within the time specified by SMARA or the project approval, whichever is sooner.
- (3) Post-Reclamation Phase. After reclamation is completed, the operator shall monitor fish and water column profiles in each pit lake at least once every two (2) years during the period of September-November for ten (10) years following reclamation. Monitoring shall commence in the first calendar year following completion of reclamation activities. If fish monitoring results from the post-reclamation period exceed the applicable response threshold described in subsection (e) or, for ponds that have implemented mitigation management, results do not exhibit a general decline in mercury levels, the operator shall, solely at their own expense, undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).
- (4) Other Monitoring Obligation. If monitoring conducted during both the mining and post-reclamation phase did not identify any exceedances of the ambient mercury level for a particular pit lake, and at the sole discretion of the Director no other relevant factors substantially support that continued monitoring is merited, the operator shall have no further obligations.

(d) Reporting.

- (1) Pit Monitoring Results. Reporting and evaluating of subsection (c) pit monitoring results shall be conducted by a qualified aquatic scientist or equivalent professional acceptable to the Director. Monitoring activities and results shall be summarized in a single

report (addressing all wet pit lakes) and submitted to the Director within six (6) months following each annual monitoring event. The report shall include, at a minimum: (1) results from subsection (b) (pit monitoring), in relation to subsection (a) (ambient mercury levels).

- (2) Expanded Analysis Results. Reporting and evaluation of subsection (f) expanded analysis shall be conducted by a qualified aquatic scientist or equivalent professional acceptable to the Director. Results shall be summarized in a single report (addressing all affected wet pit lakes) and submitted to the Director within six (6) months following each annual monitoring event. The report shall include, at a minimum, the results of the expanded analysis undertaken pursuant subsection (f).
- (3) Data Sharing. For pit lakes open to the public, the Director may submit the data on mercury concentrations in pit lake fish to the state Office of Environmental Health Hazard Assessment (or its successor) for developing site-specific fish consumption advisories.

(e) Response Thresholds.

- (1) Fish Consumption Advisory. If at any time during any phase of monitoring the pit lake's average sport fish tissue mercury concentration exceeds the Sport Fish Water Quality Objective, as it may be modified by the state over time (as of 2019, the level was 0.2 mg/kg), the operator shall post fish consumption advisory signs at access points around the lake and around the lake perimeter. Catch-and-release fishing may still be allowed. Unless site-specific guidance has been developed by the state's Office of Health Hazard Assessment or the County, statewide fish consumption guidance shall be provided.
- (2) Mining Phase Results. If, during the mining phase of monitoring, the pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three (3) of five (5) monitoring years, annual monitoring shall continue for an additional five (5) years, and the operator shall undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).
- (3) Post-Reclamation Phase Results. If during the first ten (10) years of the post-reclamation phase of monitoring, the pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three (3) of five (5) monitoring years, biennial

monitoring shall continue for an additional ten (10) years, and the operator shall undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection(g).

(f) Expanded Analysis.

- (1) General. If during the mining or post-reclamation phase, any pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three (3) years, the operator shall undertake expanded analyses. The analysis shall include expanded lake water column profiling (a minimum of five (5) profiles per affected wet pit lake plus one or more nonaffected lakes for control purposes) conducted during the warm season (generally May through October) in an appropriate deep profiling location for each pit lake. The following water quality parameters shall be collected at regular depth intervals, from surface to bottom of each lake, following protocols identified in subsection (a): temperature, dissolved oxygen, conductivity, pH and oxidation-reduction potential (ORP), turbidity or total suspended solids, dissolved organic matter, and algal density by Chlorophyll or Phycocyanin. The initial analysis shall also include one-time collections of fine grained (clay/silt) bottom sediments from a minimum of six (6) well distributed locations for each affected lake, and from one or more nonaffected lakes for control purposes, to be analyzed for mercury and organic content.
- (2) Scope of Analysis. The purpose of the expanded analyses is to identify and assess potential factors linked to elevated methylmercury production and/or bioaccumulation in each pit lake. The scope of the expanded analyses shall include monitoring and analysis appropriate to fulfill this purpose, invoking best practices in the industry. In addition to the analyses described in subsection (f)(1) above, the analysis should also consider such factors as: electrical conductivity, bathymetry (maximum and average depths, depth-to-surface area ratios, etc.), and trophic status indicators (concentrations, Secchi depth, chlorophyll a, fish assemblages, etc.). Additional types of testing may be indicated and appropriate if initial results are inconclusive.
- (3) Use of Results. The results of the expanded analyses undertaken pursuant to this subsection shall be used to inform the preparation of a lake management plan described below under subsection (g).

(g) Lake Management Activities.

(1) General. If monitoring conducted during the mining or post-reclamation phases triggers the requirement to undertake expanded analysis and prepare and implement a lake management plan, the operator shall implement lake management activities designed by a qualified aquatic scientist or equivalent professional acceptable to the Director, informed by the results of subsection (f). Options for addressing elevated mercury levels may include (A) and/or (B) below at the Director's sole discretion and at the operator's sole expense.

(A) Lake Management Plan. Prepare a lake management plan that provides a feasible, adaptive management approach to reducing fish tissue mercury concentrations to at or below the ambient mercury level. Potential mercury control methods could include, for example: addition of oxygen to or physical mixing of anoxic bottom waters; alteration of water chemistry (modify pH or organic carbon concentration); and/or removal or replacement of affected fish populations. The lake management plan may be subject to external peer review at the discretion of the Director. Lake management activities shall be appropriate to the phase of the operation (e.g., during mining or post-reclamation). The Lake Management Plan shall include a recommendation for continued monitoring and reporting. All costs associated with preparation and implementation of the lake management plan shall be solely those of the operator. Upon acceptance by the Director, the operator shall immediately implement the plan. The lake management plan shall generally be implemented within three (3) years of reported results from the expanded analyses resulting from subsection (f). If lake management does not achieve acceptable results and/or demonstrate declining mercury levels after a maximum of three (3) years of implementation, at the sole discretion of the Director, the operator may prepare an alternate management plan with reasonable likelihood of mitigating the conditions.

(B) Revised Reclamation Plan. As an alternative to (A), or if (A) does not achieve acceptable results and/or demonstrate declining mercury levels after a maximum of three (3) years of implementation, at the sole discretion of the Director, the operator shall prepare and submit revisions to the reclamation plan (including appropriate applications and information for permit amendment) to fill the pit lake with suitable fill material to a level no less than five (5) feet

above the average seasonal high groundwater level, and modify the end use to agriculture, habitat, or open space at the discretion of the Director, subject to Article 6 of the Mining Ordinance and/or Article 8 of the Reclamation Ordinance as may be applicable.

(2) Implementation Obligations.

- (A) If a lake management plan is triggered during the mining or post-reclamation phase and the subsequent lake management activities do not achieve acceptable results and/or demonstrate declining mercury levels, the operator may propose different or additional measures for consideration by the Director and implementation by the operator, or the Director may direct the operator to proceed to modify the reclamation plan as described in subsection (g)(1)(B).
- (B) Notwithstanding the results of monitoring and/or lake management activities during the mining phase, the operator shall, during the post-reclamation phase, conduct the required ten (10) years of biennial monitoring.
- (C) If monitoring conducted during the post-reclamation phase identifies three (3) monitoring years of mercury concentrations exceeding the ambient mercury level, the operator shall implement expanded analyses as in subsection (f), to help prepare and implement a lake management plan and associated monitoring.
- (D) If subsequent monitoring after implementation of lake management activities, during the post-reclamation phase, demonstrates levels of fish tissue mercury at or below the ambient mercury level for any three (3) monitoring years (i.e., the management plan is effective), the operator shall be obligated to continue implementation of the plan and continue monitoring, or provide adequate funding for the County to do both, in perpetuity.

Section 10-5.524. Post-Reclamation Groundwater Monitoring.

Monitoring during the mining and reclamation period shall be a condition of the permit. The applicant shall ensure that the groundwater monitoring of wet-pit mining continues for (10) years after the completion of reclamation.

4.6.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the changes in the proposed project's potential impacts related to hydrology and water quality. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. A hydrology and/or water quality impact is considered significant if the proposed project would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i) result in substantial erosion or siltation on- or off-site;
 - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv) impede or redirect flood flows.
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
- f) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to hydrology and water quality.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is an explanation (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a

significant effect on hydrology and water quality resources if it would result in: Substantial changes in absorption rates, drainage patterns, or rate and amount of surface runoff.

Changes in absorption rates, drainage patterns, surface runoff are addressed by criterion “c” above.

- Exposure of people or property to water-related hazards, such as flooding (100-year or more frequent flood frequency is the assumed threshold).

Impacts related to flooding are addressed by criterion “c” above.

- Discharge into surface water or other alteration of surface water quality (e.g., temperature, dissolved oxygen, or turbidity) in excess of applicable waste discharge requirements.

Impacts associated with alteration of surface water quality are addressed by criteria “a” “c” and “e” above.

- Substantial changes in the amount of surface water in any water body.

Impacts associated with changes to surface water amounts are addressed by criterion “c” above.

- Substantial changes in currents, or the course or direction of water movements.

Impacts associated with changes in water movements are addressed by criterion “c” above.

- Substantial changes in the quantity of ground waters either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability.

Impacts associated with changes in the quantity of groundwater are addressed by criteria “b” and “e” above.

- Altered direction or rate of flow of groundwater.

Impacts associated with altered rate or flow of groundwater are addressed by criteria “b” and “e” above.

- Impacts to groundwater quality.

Impacts associated with groundwater quality are addressed by criteria “a,” “b” and “e” above.

- Substantial reduction in the amount of groundwater otherwise available for public water supplies.

Impacts associated with a reduction of groundwater are addressed by criteria “a,” “b” and “e” above.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are summarized in Table 4.6-1. The table provides a discussion of the status of each mitigation measure.

Table 4.6-1: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.4-1	Flooding at the site could cause property damage and injury to on-site workers. This is considered to be a significant impact.	<p>Mitigation Measure 4.4-1a/Condition of Approval No. 44^a requires:</p> <p>“The applicant must apply for, and receive, a floodplain development permit from Yolo County prior to mining activities within U.S. Department of Housing and Urban Development designated 100-year floodplains, as required by the County General Plan and the County Flood Damage Prevention Ordinance.”</p> <p>The County approved Flood Hazard Development Permit No. 96-070 on December 17, 1996, including additional separate conditions with which the operator must comply. This condition is implemented and fully discharged.</p>
4.4-2	Evaporation from a wet pit water surface would represent a loss of water from groundwater storage. This is considered to be a less-than-significant impact.	No mitigation measures were required because annual evaporative losses from reclaimed uses (lake, agriculture, and habitat) would be similar to those anticipated from typical agriculture that would otherwise be taking place on the land, and other beneficial results would occur from reclaimed habitat.
4.4-3	Creation of wet pit lakes exposes surface and groundwater to potential degradation of water quality during the mining and reclamation period. This is considered to be a significant impact.	<p>Mitigation Measure 4.4-3a/Condition of Approval No. 45^a requires:</p> <p>“Implement the performance standards contained in Sections 10-4.413, 10-4.417, 10-4.427, and 10-4.428 of the County Off-Channel Surface Mining Ordinance; and Sections 10-5.507, 10-5.510, 10-5.519, 10-5.524, 10-5.528, and 10-5.530 of the County Surface Mining Reclamation Ordinance.”</p> <p>This mitigation measure will apply to the proposed project and will continue to be implemented.</p>
4.4-4	Creation of wet pit lakes exposes surface and groundwater to potential degradation of water quality during the post-reclamation period. This is considered to be a significant impact.	<p>Mitigation Measure 4.4-4a/Condition of Approval No. 46^a requires:</p> <p>“Implement the performance standards contained in Section 10-4.413, 10-4.417, 10-4.427, and 10-4.428 of the County Off-Channel Surface Mining Ordinance; and Section 10-5.507, 10-5.510, 10-5.517, 10-5.519, 10-5.524, 10-5.528, 10-5.530, and 10-5.532 of the County Surface Mining Reclamation Ordinance. “</p>

		This mitigation measure will apply to the proposed project and will continue to be implemented.
4.4-5	Creation of wet pit lakes and the subsequent backfilling with fine-grained sediments (processing fines and overburden) could cause impacts to groundwater levels, rate of flow and direction of flow. This is considered to be a less-than-significant impact.	No mitigation measures were required because groundwater levels equilibrate around low permeability zones, and there are no off-site water supply wells within 1,000 feet of the proposed mining areas.
4.4-6	Mining of aggregate and subsequent reclamation of the mined areas would result in alteration of the topography and drainage patterns at the site. This is considered to be a less-than-significant impact.	No mitigation measures were required because alterations in on-site drainage patterns would not significantly change runoff volumes or destinations, and runoff water quality would be improved during periods of storage in onsite detention basins.
4.4-7	Reclaimed lowered agricultural surfaces could be inundated during parts of the year by high groundwater conditions, adversely impacting productivity. This is considered to be a significant impact.	Mitigation Measure 4.4-7a/Condition of Approval No. 47 ^a requires: "Pursuant to Section 10-5.516 of the Reclamation Ordinance, all reclaimed lowered agricultural surfaces shall be, at minimum, five feet above average high groundwater. The reclamation plan for the Solano West parcel (Phase 7) shall be modified to meet this requirement." Revised mining and reclamation plans showing the modifications to Phase 7 were submitted to staff on April 24, 1997. However, as a part of the proposed project the applicant proposes to remove Phase 7. If approved, this measure would no longer be applicable.
4.4-8	Increased pumping of groundwater at the processing plant to support the proposed increase in aggregate extraction and processing could adversely affect water supply wells in the vicinity. This is considered to be a less-than-significant impact.	No mitigation measures were required because the pumped groundwater is used in processing and ultimately discharged back to the aquifer at the site. Local perturbations in water levels caused by pumping wells or backfilled pits generally dissipate to negligible levels within 1,000 feet and there are no off-site water supply wells within 1,000 feet of the site.

Source: *Baseline Environmental Consulting, 2021.*

Notes:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review as modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required

where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.6-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or ground water quality. The impact would be *less than significant*.

The project proposes to continue for an additional 20 years mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to discharge of pollutants and potential effects on water quality would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR. However, due to ongoing monitoring activities, substantially more water quality information is available now than was available in 1996, when the project was evaluated in the original EIR. In addition, many of the County ordinances that relate to water quality were modified under the CCAP Update. The following discussion describes the water quality data and the relevant updated County ordinances as they pertain to the project.

General Water Quality (Wet Pit Lakes and Groundwater)

The existing County ordinances (as modified by the CCAP Update) include numerous sections that address potential impacts to water quality related the discharge of contaminants to wet pit lakes, including:

Section 10-3.408 (Hazards and Hazardous Materials) specifies that 1) all heavy equipment used for channel improvements must be kept in good working order to avoid spills and leaks of fuel and oils into the channel; that a stormwater pollution prevention plan must be prepared and implemented to minimize the potential for erosion and chemical spills; and 3) test fill used for bank repair projects to ensure that the fill material does not contain contaminants above applicable thresholds.

Section 10-4.413 (Drainage) specifies that surface water may be directed into mined areas (i.e., wet pits) only designed and engineered in accordance with an approved reclamation plan that includes erosion and sediment control measures.

Section 10-4.415 (Equipment Maintenance) specifies that 1) all internal combustion engine driven equipment and vehicles shall be kept tuned according to the manufacturer's specifications and properly maintained to minimize the leakage of oils and fuel; and that 2) fueling and maintenance activities of heavy equipment (except draglines and floating suction dredges) are prohibited within one-hundred (100) feet of open bodies of water during mining and reclamation. All Storm Water Pollution Prevention Plans shall include provisions for releases of fuels during fueling activities for draglines and floating suction dredges.

Section 10-4.417 (Groundwater Monitoring Programs) establishes that groundwater monitoring programs are conducted for all operations that propose off-channel mining excavation that extend below the groundwater table. These monitoring programs require collection and testing of groundwater samples for a wide range of constituents and chemicals. In addition, the ordinance requires measuring of groundwater levels and determination of groundwater flow directions at each site.

Section 10-4.427 (Protection of Nearby Drinking Water Wells) requires that for any off-channel excavation that is proposed to extend below the level of seasonal high, that all local domestic and municipal wells are located and identified, and that groundwater modeling is conducted to determine whether the proposed wet pit mine would adversely affect the wells.

Section 10-4.437 (Wastewater Discharge) specifies that no wastewater will be discharged directly to Cache Creek and that sediment fines generated by aggregate processing be used as off-channel fill or soil amendments.

Section 10-4.438 (Watercraft) specifies that only motorized dredges and draglines shall be allowed on the wet pit lakes. All other fuel-powered (gasoline or diesel) watercraft shall not be used on the wet pit lakes. Electric-powered or non-motorized boats shall be permissible.

Section 10-5.510 (Fencing) requires fencing around mining areas and prevents trespass and illicit discharges of contaminants to wet pits.

The 1996 EIR found that implementation of these measures (which are now regulations) under Mitigation Measure 4.4-4a would ensure that potential impacts related to discharges of contaminants to mining wet pits are mitigated to a level of less than significant. Since the project would continue to be required to comply with these measures (as modified by the CCAP Update), the potential water quality impacts related to discharge of contaminants to the wet pit lakes under the project would continue to be less than significant (after mitigation).

Based on review and analysis conducted by the CCAP Technical Advisory Committee (TAC) as part of the CCAP Update process, the water quality monitoring program under CCAP (both surface water samples collected by the County and samples collected at mining sites by operators) underwent a comprehensive review. The TAC found that there are no obvious long-term trends that indicate water quality degradation, and that most contaminants being tested occur at levels that are below action levels. Consistent with CCAP requirements, groundwater monitoring has been taking place in on-site wells at the project site since 1990. Results of the ongoing monitoring efforts provide a site-specific data set that characterizes groundwater conditions in the vicinity of the project through time, including pre-mining conditions and conditions throughout mining and reclamation activities that have occurred to date. The existing data record shows no evidence or indication that the mining and plant operations have caused changes in

groundwater levels or quality to date.¹³ This data confirms that the ongoing measures to protect groundwater quality have been effective.

Methylmercury in Wet Pits

The presence of mercury continues to be a concern for Cache Creek and its surrounding areas.¹⁴ The Cache Creek watershed, particularly the uplands above the Town of Capay, has been the location of extensive historic mercury mining. These historic mines produced a large percentage of mercury used within the United States. Clear Lake and Cache Creek are both listed as impaired waters for mercury on the federal Clean Water Act Section 303(d) list for California. These waters are an identified source of mercury and contribute a substantial portion of total mercury load delivered to the Sacramento-San Joaquin Delta. Mercury contamination originates from past mining activities, geothermal springs, erosion of naturally occurring mercury-containing soils, and atmospheric deposition near Clear Lake and at tributaries to Cache Creek.

Compounds of mercury can be harmful to health. Organic mercury compounds, including methylmercury,¹⁵ are rapidly accumulated by aquatic animals. The concentration of these compounds increases through time in the flesh of fish, a process called bioaccumulation. In addition, the accumulation of organic mercury concentrates along aquatic food chains, reaching high levels at the top predators through a process referred to as biomagnification. Consumption of fish with bioaccumulated levels of methylmercury is the largest source of mercury exposure for humans.

It was recognized by the County at the initiation of the CCAP program in the early 1990s that reclamation of off-channel mining areas within the OCMP planning area to permanent wet pit lakes could present conditions favorable to the conversion of mercury to methylmercury. The concern was that thermal stratification of lake waters and accumulation of organic matter could promote the development of anaerobic conditions in the bottom of the wet pit lakes. Although throughflow of groundwater through the lakes was expected to reduce the potential for severe eutrophication of the lakes, algal growth and detritus from the margins of the lakes were thought capable of providing a significant source of organic materials. It was anticipated that deeper portions of the lakes could be deficient in dissolved oxygen, and that anaerobic conditions could promote the development of significant anaerobic bacteria populations, capable of converting inorganic mercury to methylmercury. The CCAP program was structured to allow for ongoing monitoring of this issue, with required adaptive responses to prevent and control adverse conditions, if any.

Based on the concern that the wet pit lakes could promote methylmercury formation, which could degrade water quality and have harmful effects related to bioaccumulation of mercury in fish and other wildlife, the County established a CCAP mercury monitoring program under Section 10.5.517 of the Reclamation Ordinance. The protocols for monitoring and responding to potential

¹³ Luhdorff and Scalmanini Consulting Engineers (LSCE). 2018. Groundwater Assessment for Mining Permit and Reclamation Plan Amendment. February.

¹⁴ Tompkins, M., Frank, P., and Rayburn, A.P., 2017, 2017 Technical Studies and 20-Year Retrospective for the Cache Creek Area Plan, March 17.

¹⁵ Methylmercury is formed through "methylation" of inorganic mercury. Methylation occurs primarily as an assimilative process within the cells of organisms which are able to metabolize available mercury compounds.

presence of methylmercury in the wet pit mines in the CCAP area underwent a comprehensive review as part of the CCAP Update, including a review of all CCAP area mercury monitoring data (sediment, water column, and fish tissue data). Based on approximately 20 years of experience administering the mercury monitoring program and reviewing results and current practices, the County has substantially updated Section 10.5.517 (and added 10-4.420.1) of the Reclamation Ordinance. The project is legally obligated to comply with the provisions of Section 10.5.517 of the Reclamation Ordinance.

Review of the ongoing monitoring program indicate two wet pit lakes at the CEMEX project site have been monitored for methylmercury formation (based on fish tissue sampling results required under Section 10.5-517). These wet pit lakes are referred to as CEMEX Phase 1 and CEMEX Phase 3-4. Figures 3-5 and 3-6 provide the proposed mining plan and phasing.

The CEMEX Phase 1 wet pit lake was found to contain the lowest in fish mercury, overall, of all the CCAP wet pit lakes being monitored (as of 2018).¹⁶ Concentrations were statistically similar to or lower than all corresponding baseline Cache Creek samples of similar size. The Phase 1 Pond was, therefore, not found to be "elevated over baseline in 2 or more consecutive years" (per the criterion in Section 10.5-517), which would trigger consideration of mercury remediation, with seasonal water column profiling as a first step. Based on these results, ongoing monitoring as required under Section 10.5-517 is sufficient to satisfy the ordinance requirements and the potential impact related to the project is less than significant.

The CEMEX Phase 3-4 wet pit lake was last sampled in 2018 for fish tissue the fourth year of sampling).¹⁷ Overall the fish mercury in the Phase 3-4 lake remained elevated over comparable creek baseline samples for the majority of fish sample types. The adult bass, in particular, stayed at levels well above consumption guidelines. This pond was found to be relatively "elevated over baseline in 2 or more consecutive years", which triggered consideration of mercury remediation (per Section 10.5-517). The County will prepare and send a formal notice to CEMEX regarding results in the Phase 3-4 wet pit lake. The notice will require CEMEX to prepare a Lake Management Plan (LMP) per Reclamation Ordinance Section 10.5-517. CEMEX will use the information in the sampling reports prepared by the County to prepare the required LMP for Phase 3-4 wet pit, and per the regulations fish monitoring and water column profiling will continue for five more years. Required periodic analysis of ambient conditions will also continue. Based on specific physical conditions of the Phase 3-4 wet pit, will consider the following options for mercury control: water mixing, management of water chemistry, fish removal, and/or filling the lake.

The LMP must be prepared by qualified aquatic scientist(s) or equivalent professional(s) acceptable to the County. Peer review of the LMP may be required at the discretion of the County. The LMP will be reviewed by the Cache Creek Technical Advisory Committee at a formally noticed public meeting, at which all interested parties will have an opportunity to provide input and ask questions of the expert panel during the course of their review.

¹⁶ Slotton, D.G., Ayers, S.M., 2020. Cache Creek Off-Channel Aggregate Mining Ponds – 2018 Mercury Monitoring, Final Report, May.

¹⁷ Ibid.

Implementation of the approved LMP must occur within three years of reported results from the expanded analyses undertaken pursuant to Section 10-5.517(f). If lake management does not achieve acceptable results and/or demonstrate declining mercury levels after a maximum of three (3) years of implementation, at the sole discretion of the County Administrator or his/her designee, the operator may be required to prepare an alternate management plan with reasonable likelihood of mitigating the conditions.

After a maximum of three (3) years of implementation of any alternate management plan, at the sole discretion of the County Administrator or his/her designee, the operator shall prepare and submit revisions to the reclamation plan (including appropriate applications and information for permit amendment) to fill the pit lake with suitable fill material to a level no less than five (5) feet above the average seasonal high groundwater level, and modify the end use to agriculture, habitat, or open space at the discretion of the Director, subject to Article 6 of the Mining Ordinance and/or Article 8 of the Reclamation Ordinance as may be applicable.

If subsequent monitoring after implementation of lake management activities, during the post-reclamation phase, demonstrates levels of fish tissue mercury at or below the ambient mercury level for any three (3) monitoring years (i.e., the LMP is effective), the operator must continue implementation of the plan and continue monitoring, or provide adequate funding for the County to do both, in perpetuity (Section 10-5.517(g)(2)(D)).

The proposed project would modify approved lake reclamation reducing the total number of lakes from 4 to 2, increasing their size by approximately 51 acres total, and reducing the linear connectivity of the reclaimed lake habitat to the existing creek corridor by about 2,340 feet (see Table 4.3-2 and Figure 3-21). Under the proposed project, the Phase 3-4 wet pit would be backfilled to reclaimed agriculture rather than to an open lake. Therefore if the project is approved, an LMP would not be required for the Phase 3-4 wet pit.

From a general wildlife perspective, the approved reclamation plan offers more habitat connectivity for wildlife because it borders a longer stretch of the existing creek corridor (see Impact 4.3-6). However, the proposed changes should not adversely affect potential mercury hazards. With regard to potential mercury hazards, the two proposed larger lakes can be expected to function very similarly to the originally proposed design. The proposed lakes remain in the same general location and will contain the same general base concentrations of historic mercury. They will be in the same general orientation to prevailing winds. Most importantly, the maximum depth of 70 feet would not change. Lake depth is important in influencing the natural biogeochemical cycles in the lakes, including the methylmercury cycle (Memorandum from Dr. Darell Slotton to County dated August 13, 2021). Depth and mixing forces (mainly surface winds) determine how and if a lake will stratify into layers during the warm season. The extent of seasonal stratification affects the natural cycles. The changed design will allow for greater mixing from surface winds ("wind fetch") due to larger surface area, leading to potentially deeper mixing of water columns. This would be beneficial and could result in a reduction for methylmercury production and accumulation in fish. Fish mercury is being monitored closely through the requirements of Section 10-5.517 of the Reclamation Ordinance, and will continue under any design, together with mandatory remediation measures as needed.

The proposed project would increase the acreage of reclaimed wet pit lakes (relative to the reclamation plan considered in the 1996 EIR) and these lakes may be found to contain elevated levels of methylmercury in the future. However, Section 10-5.517 of the Reclamation Ordinance requires specific monitoring activities and lake management efforts (including remediation if necessary) if elevated levels are identified. Therefore, potential impacts related to violation of water quality standards or waste discharge requirements would remain less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.6-2: The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The impact would be *less than significant*.

Section. 10-5.529 of the OCMP, which states “All permanent wet pits shall be reclaimed to include valuable wildlife habitat as a beneficial use of the water lost from wet pits due to evaporation” indicating that the evaporative losses provide a compensating beneficial impact in creation of new wildlife habitat. Therefore, potential impacts related to evaporation of groundwater under the existing CCAP program (and under the CCAP Update) are less than significant. This finding is consistent with the 1996 EIR which found that loss of water from groundwater storage as a result of evaporation from wet pit lake surfaces was less than significant (Impact 4.2-2). The proposed project would increase the acreage of reclaimed wet pit lakes (relative to the reclamation plan considered in the 1996 EIR) by approximately 57.4 acres, but, based on OCMP policy and findings, the effect on groundwater storage would remain less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.6-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. The impact would be *less than significant*.

In general, the project proposes to continue for an additional 20 years mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to alteration of drainage patterns would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR. The 1996 EIR found that although on-site drainage patterns would be altered by the mining project, no significant change in the volume or ultimate destination of the runoff was expected to result from the project. This impact would remain less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.6-4: In flood hazard, tsunami, or seiche zones, result in release of pollutants due to project inundation. The impact would be *less than significant*.

The project site is not susceptible to flooding associated with a tsunami due to its distance from any coastal area. A seiche is the oscillation of a body of water. Seiches occur most frequently in enclosed or semi-enclosed basins such as large lakes, bays, or harbors. They can be triggered in an otherwise still body of water by strong winds, changes in atmospheric pressure, earthquakes, or tides. The wet pit lakes at the project site are the only water bodies in the vicinity, but these lakes are too small to generate damaging seiches.

Cache Creek has a history of flooding and has overtopped its banks on numerous occasions. However, site specific engineering analysis (HEC-RAS modeling) indicates that the 100-year water surface is effectively contained within Cache Creek along the CEMEX Reach,¹⁸ indicating that the mining site is protected from the 100-year flood, effectively minimizing the risk that the project could release pollutants to receiving water during flood inundation. This condition is consistent with the requirements of Mining Ordinance Section 10-4.416. Flood Protection, which states:

All off-channel surface mining operations shall be provided with a minimum one-hundred (100) year flood protection. Off-channel excavations shall be designed to minimize the potential for levee breaching and/or pit capture. In addition, excavations shall be designed to prevent overtopping of channel banks or levees along Cache Creek and all tributaries and drainage channels.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

¹⁸ Cunningham Engineering Corporation, 2016. Hydraulic Analysis of the CEMEX Reach Memorandum. March 10.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.6-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact would be *less than significant*.

Per the CCAP Update EIR, the following plans are potentially relevant to the proposed CCAP program and the mining project proposed under the CCAP:

- Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region, Fifth Edition (revised May 2018)
- Sustainable Groundwater Management Act – Groundwater Sustainability Plan (under preparation)

The Basin Plan includes (by amendment) a Total Maximum Daily Load (TMDL)¹⁹ for mercury in the Cache Creek basin. This Cache Creek, Bear Creek, and Harley Gulch TMDL for Mercury, which is the principle regulatory driver from the state with respect to mercury in the Cache Creek watershed, was approved as a Basin Plan amendment in 2005 by the Central Valley Regional Water Quality Control Board. The CCAP Update EIR considered potential discharges of mercury from the mining sites into Cache Creek that could potentially be in conflict with the goals of the TMDL (and Basin Plan) and determined that CCAP mining projects would not increase the mercury load to Cache Creek and therefore are consistent with the TMDL and the Basin Plan.

The Groundwater Sustainability Plan, which is currently under preparation and scheduled to be completed in 2022, will identify means and methods necessary for the groundwater basin to achieve a state of sustainable management. The project would not adversely affect sustainable groundwater management because no increases in groundwater extraction or impervious surfaces (which could reduce recharge) are proposed.

¹⁹ On a broad level, the TMDL process leads to a "pollution budget" designed to restore the health of a polluted body of water. The TMDL process provides a quantitative assessment of water quality problems, contributing sources of pollution, and the pollutant load reductions or control actions needed to restore and protect the beneficial uses of an individual waterbody impaired from loading of a particular pollutant. More specifically, a TMDL is defined as the sum of the individual waste load allocations for point sources, load allocations for nonpoint sources, and natural background such that the capacity of the water body to assimilate pollutant loading (the loading capacity) is not exceeded (40 CFR §130.2). In other words, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards which will insure the protection of beneficial uses. This calculation also includes a margin of safety and consideration of seasonal variations. In addition, the TMDL contains the reductions needed to meet water quality standards and allocates those reductions among the pollutant sources in the watershed.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.6-6: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to hydrology and water quality. The impact would be *significant*.

Table 4.6-2 below provides an analysis of consistency of the proposed project with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to hydrology and water quality. The policies and regulations identified in the table are those that have been revised or put into effect since the 1996 EIR, as the underlying CEMEX mining project has been determined to be consistent with County program policies and regulations.

In general, the project proposes to continue for an additional 20 years mining and reclamation activities as described and evaluated in the 1996 EIR. Potential impacts related to drainage, water quality and flooding would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR and would remain less than significant. The 1996 EIR found that the 1996 project was consistent with applicable plans, policies, and regulations. The proposed project is substantially similar to the 1996 project from a hydrology and water quality perspective.

The 2022 annual report of the County TAC (pages 42 and 43) identify previously active channel migration and aggradation proximate to the project site, and the need to monitor and potentially accelerate bar skimming and other channel maintenance activities in the CEMEX reach.

Pursuant to the adaptive management focus of the County's regulations and the ongoing oversight of creek channel conditions by the County TAC, a mitigation measure has been identified to update the 2016 project hydraulic analysis to reflect current and future projected

conditions. With implementation of Mitigation Measure 4.6-6 this impact would be less-than-significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there are changes in the circumstances under which the project would be undertaken, related to channel migration and aggradation, that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Implementation of Mitigation Measure 4.6-6 would reduce this impact to a less-than-significant level.

Mitigation Measure 4.6-6

No later than March 2031, the operator shall submit an updated hydraulic analysis of the CEMEX reach that utilizes and incorporates the most recent version of the County hydraulic model including updated/current site data. The model, method, and all inputs shall be reviewed and approved by the County, including review by the TAC geomorphologist and hydraulic engineer. Consistency with Section 10-4.429(e) and other applicable sections of the Mining and Reclamation Ordinances shall be demonstrated.

The analysis shall confirm containment of 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area between the channel boundary and the edge of mining, particularly in areas where prior over-mining has occurred. All recommendations, including bar skimming and other channel maintenance activities consistent with County regulations, the CCAP, and recommendations of the TAC shall be timely implemented by the operator.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Table 4.6-2: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy CO-2.31 Protect wetland ecosystems by minimizing erosion and pollution from grading, especially during grading and construction projects.</p>	<p>As described in the 1996 EIR and the discussion for Impact 4.6-3 above, the ground-disturbing activities associated with the proposed project would not result in adverse effects to water quality. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CO-5.14 Require that proposals to convert land to uses other than agriculture, open space, or habitat demonstrate that groundwater recharge will not be significantly diminished.</p>	<p>Mining is an allowed use in the A-N (Agricultural Intensive) zone; therefore, by definition land use conversion would not occur. The proposed project would include reclamation of the project site to agriculture, habitat, and open space in the form of a lake through which groundwater recharge could occur. Therefore, the proposed project is consistent with this policy.</p>
<p>Action A94 Adopt development design standards that use low-impact development techniques that emulate the natural hydrologic regime and reduce the amount of runoff and associated pollutants. Examples include vegetated swales, landscaped detention basins, permeable paving, and green roofs.</p>	<p>The proposed project would not include discharge of stormwater runoff to Cache Creek or other downstream waterways. All runoff would be captured and treated on-site. Thus, the proposed project is consistent with this action.</p>
<p>Action A97 Continue to monitor water quality in Lower Cache Creek and annually make the resulting data publicly available.</p>	<p>Consistent with Section 10-4.417 of the Mining Ordinance, the project would be required, as a condition of approval, to provide for ongoing monitoring of groundwater quality in the project area over the life of the project. In addition, consistent with Section 10.5-517 of the Reclamation Ordinance, the County, in cooperation with the mining operators, has and will continue to characterize water quality conditions related to methylmercury in Lower Cache Creek. Thus, the proposed project is consistent with this action.</p>
<p>Policy HS-2.7 Manage the floodplain to improve the reliability and quality of water supplies.</p>	<p>See Action HS-A5</p>

<p>Action HS-A5 Require a minimum of 100-year flood protection for new construction, and strive to achieve 200-year flood protection for unincorporated communities. Where such levels of protection are not provided, require new development to adhere to the requirements of State law and the County Flood Damage Prevention Ordinance. (Policy HS-2.1)</p>	<p>As described under Impact 4.6-4, site specific engineering analysis indicates that the 100-year water surface is effectively contained within Cache Creek along the CEMEX reach, indicating that the mining site is protected from the 100-year flood, which minimizes the risk that the project could be impacted by flooding. Thus, the proposed project is consistent with this action. Additionally, Impact 4.6-6 identifies a new mitigation measure requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area.</p>
<p>Off-Channel Mining Plan</p>	
<p>Action 3.2-5. Require that surface mining operations demonstrate that proposed off-channel excavations extending below the groundwater level will not adversely affect the producing capacity or water quality of local active wells.</p>	<p>Consistent with CCAP requirements, groundwater monitoring has been taking place in on-site wells at the project site since before 1996 when the existing mining operation was approved. Results of the ongoing monitoring efforts provide a site-specific data set that characterizes groundwater conditions in the vicinity of the project through time, including pre-mining conditions and conditions throughout mining and reclamation activities that have occurred to date. The existing data record shows no evidence or indication that the mining and plant operations have caused changes in groundwater levels or quality to date. The project proposes no changes in operations that would adversely affect local active wells. Therefore, the project is consistent with this action.</p>
<p>Action 3.4-3. Include a groundwater monitoring program as a condition of approval for any surface mining and reclamation operation that proposes off-channel excavations that extend below the groundwater level. The monitoring program shall require regular groundwater level data, as well as a water quality monitoring program based on a set of developed standards.</p>	<p>See Action 3.2-5. Ongoing groundwater monitoring would be required as a condition of project approval.</p>
<p>Action 4.4-4. Manage activities and development within the floodplain to avoid hazards and adverse impacts on surrounding properties. This shall be accomplished through enforcement of the County Flood Damage Ordinance and ensuring that new development complies with the requirements of the State Reclamation Board.</p>	<p>As described in Action HS-A5, the proposed mining and reclamation area is located outside of the 100-year floodplain associated with Cache Creek. The proposed project would not result in flood-related hazards. Additionally, Impact 4.6-6 identifies a new mitigation measure requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area. Therefore, the project would be consistent with this action.</p>

<p>Action 4.4-5. Allow for the design of spillways or other engineered features that provide controlled flooding of off-channel mining pits during events which exceed the 100-year flood.</p>	<p>The results of the hydraulics study prepared for the proposed project by CEC substantiate that the 100-year storm discharges are contained within the Cache Creek channel and would not overtop the creek bank of the waterway in the project vicinity; thus, flooding of the mining pit is unlikely to occur, and the project would be consistent with this action. Additionally, Impact 4.6-6 identifies a new mitigation measure requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area.</p>
<p>Off-Channel Surface Mining Ordinance</p>	
<p>Section 10-4.413 Surface water may be allowed to enter mined areas, through either perimeter berms or ditches and grading, when designed and engineered pursuant to an approved reclamation plan and where effective best management practices (BMPs) to trap sediment and prohibit contamination are included. Appropriate erosion control measures shall be incorporated into all surface water drainage systems. Stormwater drainage systems shall be designed to connect with natural drainages so as to prevent flooding on surrounding properties and County rights-of-way. Storm water runoff from mining areas shall be conveyed to lowered areas (detention basins) to provide detention of runoff generated during a 20- year, one-hour storm event. All drainage conveyance channels or pipes (including spillways for detention areas) shall be designed to ensure positive drainage and minimize erosion. The drainage conveyance system and storm water detention areas shall be designed and maintained in accordance with Best Management Practices for the reduction of pollutants associated with runoff from mined areas. The design and maintenance procedures shall be documented in the Storm Water Pollution Prevention Plan required for mining operations. The drainage system shall be inspected annually by a Registered Civil Engineer, Registered Geologist, or Certified Erosion and Sediment Control Specialist to ensure that the drainage system is functioning effectively and that adverse erosion and sedimentation are not occurring. The annual inspection shall be documented in the Annual Mining and Reclamation Report. If the system is found to be functioning ineffectively, the operator shall promptly implement the recommendations of the engineer.</p>	<p>The project site would be graded to allow stormwater runoff to collect in the proposed mining pit, where the runoff would gradually percolate or evaporate. Consistent with Section 10-4.413, the drainage system would be inspected annually by a Registered Civil Engineer, Registered Geologist, or Certified Erosion and Sediment Control Specialist to ensure that the drainage system is functioning effectively and that adverse erosion and sedimentation are not occurring.</p>

<p>Section 10-4.416 All off-channel surface mining operations shall be provided with a minimum one-hundred (100) year flood protection. Off-channel excavations shall be designed to minimize the potential for levee breaching and/or pit capture. In addition, excavations shall be designed to prevent overtopping of channel banks or levees along Cache Creek and all tributaries and drainage channels (including, but not limited to, Willow Slough and Lamb Valley Slough).</p> <p>The flood protection upgrades shall be designed and constructed to provide the necessary 100-year protection without creating a net increase of in upstream or downstream flooding elevations. Upstream flooding could be increased if additional levee construction serves to confine flows to a narrow width, thereby increasing the water surface elevation. Downstream flooding could be increased if floodplain storage areas were removed from the drainage system by constructing levees in areas where they did not exist before (or raising levees that are overtopped in floods up to the 100-year event). Where feasible, alternative or non-structural flood management designs (potentially using detention basins, infiltration galleries, and/or floodplain storage in noncritical areas) shall be incorporated. New development (such as buildings, levees, or dikes) located within the floodplain shall conform to all applicable requirements of the Yolo County Flood Protection Ordinance and the Federal Emergency Management Agency (FEMA).</p>	<p>As described under Impact 4.6-4, site specific engineering analysis indicates that the 100-year water surface is effectively contained within Cache Creek along the CEMEX reach, indicating that the mining site is protected from the 100-year flood, which minimizes the risk that the project could be impacted by flooding. Thus, the proposed project is consistent with this action. Additionally, Impact 4.6-6 identifies a new mitigation measure requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area.</p>
<p>Section 10-4.420.1 Each mining area to be reclaimed to a permanent lake as part of each approved long-range mining plan shall be evaluated annually by the operator for five years after the pit fills with groundwater with an intensive fish mercury monitoring program described in Section 10-5.517 of the Reclamation Ordinance.</p>	<p>See Section 10-5.517 below.</p>
<p>Section 10-4.427 If any off-channel excavation proposes to extend below the level of seasonal high groundwater, then six months prior to the commencement of excavation below the average high groundwater level, the operator shall identify and locate all off-site municipal wells within one-thousand (1,000) feet and all domestic wells within five hundred</p>	<p>See discussion of Action 3.2-5.</p>

<p>(500) feet of the proposed wet pit mining boundary. If active wells are identified, well characteristics (pumping rate, depth, and locations of screens) shall be determined. If wells are not located within one-thousand (1,000) feet, the pre-mining impact evaluation shall be considered complete.</p> <p>If wet pit mining is proposed within one-thousand (1,000) feet of a municipal water supply or within five-hundred (500) feet of a domestic water supply well, a capture zone analysis shall be conducted using the U.S. Environmental Protection Agency model WHPA (or a similar model of equal capability and proven reliability, as approved by the Director). The simulation shall assume thirty (30) days of continuous pumping of the water supply well (at its maximum probable yield) under analysis. A mining setback shall be established so that the capture zone and the pit do not coincide. Alternatively, the operator shall submit a written agreement that the well owner has agreed to relocate or redesign the well, or accept the potential impact (at no expense to the County). The analysis shall be prepared and signed by a Registered Civil Engineer or Certified Hydrogeologist and submitted to the County for review and approved at least six months prior to the commencement of excavation below the seasonal high groundwater level.</p> <p>Any new drinking water wells proposed for installation within one-thousand (1,000) feet of an approved wet pit mining area shall be subject to review by the Yolo County Environmental Health Department. The County shall determine, based on site-specific hydrogeology and available water quality data, whether to approve the proposed well installation. Analysis of environmental impact for projects in the vicinity of the wet pits shall include consideration of potential water quality impacts on the open water bodies.</p> <p>The County may retain appropriate staff or a contract consultant to provide third party critical review of all hydrogeologic reports related to mining applications.</p>	
<p>Section 10-4.429 All off-channel surface mining operations shall comply with the following setbacks:</p> <p>(a) New processing plants and material stockpiles shall be located a minimum of one-thousand (1,000) feet from public rights-of-way, public recreation areas, and/or off-site residences, unless</p>	<p>Based on submitted plans for the project, all material processing plant facilities, stockpiles, and off-channel excavations would be located in compliance with the requirements of this section (see 3-12, in Chapter 3, of this Draft SEIR).</p> <p>Mitigation Measure 4.3-4b of the 1996 EIR established a 200-foot setback for off-channel mining excavations. CEMEX mined beyond the</p>

<p>alternate measures to reduce potential noise, dust, and aesthetic impacts are developed and implemented;</p> <p>(b) Soil stockpiles shall be located a minimum of five-hundred (500) feet from public rights-of-way, public recreation areas, and off-site residences, unless alternate measures to reduce potential dust and aesthetic impacts are developed and implemented;</p> <p>(c) Off-channel excavations shall maintain a minimum one-thousand (1,000) foot setback from public rights-of-way and adjacent property lines of off-site residences, unless a landscaped buffer is provided or site-specific characteristics reduce potential aesthetic impacts. Where landscaped buffers are proposed, the setback for off-channel excavations may be reduced to a minimum of fifty (50) feet from either the property line or the adjoining right-of-way, whichever is greater. Where mining occurs within one-thousand (1,000) feet of a public right-of-way, operators shall phase mining such that no more than fifty (50) acres of the area that lies within one-thousand (1,000) feet of the right-of-way would be actively disturbed at any time, except where operations are adequately screened from public view. Where adequate screening exists in the form of mature vegetation and/or constructed berms that effectively block public views, the area of active disturbance within one-thousand (1,000) feet of the right-of-way shall not exceed the area that is screened by more than fifty (50) acres at any one time. Actively disturbed areas are defined as those on which mining operations of any kind, or the implementation of reclamation such as grading, seeding, or installation of plant material are taking place.</p> <p>(d) Off-channel excavations shall provide a minimum 50-foot setback from the neighboring property line to allow for access around the pit during mining and after reclamation for maintenance, safety, and other purposes.</p> <p>(e) Proposed off-channel excavations located within the streamway influence zone shall be set back a minimum of seven-hundred (700) feet from the existing channel bank, unless it is demonstrated that a smaller distance will not adversely affect channel stability. Under no circumstances should off-</p>	<p>approved limits at several locations along the northern boundary (i.e., north of Phases 3 and 4, creating encroachments onto the 200-foot Cache Creek setback). At the request of the County CEMEX completed corrective actions and in November of 2018, the County determined that the CEMEX facility was in substantial compliance with SMARA, the Off-Channel Mining Plan (OCMP), and Development Agreement No. 96-287 on the encroachment issue. Additionally, Impact 4.6-6 identifies a new mitigation measure requiring submittal of an updated hydraulic analysis confirming 100-year flood flows, continued control of erosive forces, and continued integrity of the 200-foot setback area.</p>
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channel excavations be located within 200 feet of the existing channel bank.

Evaluations of proposed off-channel excavations within 700 feet of the channel bank shall demonstrate, at a minimum, the following:

(1) The two-hundred (200) foot setback area does not include portions of the historically active channel.

(2) The two-hundred (200) foot setback area does not include formerly mined lands separated from the active channel by levees or unmined areas less than two-hundred (200) feet wide (measured perpendicular to the active channel).

(3) Acceptable channel hydraulic conditions (based on existing or site-specific hydraulic models) for the Cache Creek channel adjacent to the site and extending not less than one-thousand (1,000) feet upstream and downstream of the site.

(4) Acceptable level of erosion potential of the channel bank adjacent to the site based on predicted stream flow velocity and shear stress on bank materials during a 100-year flow and historical patterns of erosion.

(5) Acceptable level of stability of the slopes separating the mining area from the creek channel based on an analytical slope stability analysis in conformance with Sections 10-4.426 and 10-5.517 of this title that includes evaluation of stability conditions during 100-year peak flows in the channel.

(6) Appropriate bank stabilization designs, if needed, consistent with channel design recommendations of the Cache Creek Resource Management Plan or approved by the Technical Advisory Committee.

(7) The condition of flood protection structures and the integrity of the land within the approved setback zone separating the mining areas and the channel shall be inspected annually by a Registered Civil Engineer and reported to the Director. The annual report shall include recommendations for remedial action for identified erosion problems (see also Reclamation Ordinance Section 10-5.506).

Approval of any off-channel mining project located within seven-hundred (700) feet of the existing channel bank shall be contingent upon an enforceable agreement which requires the project

<p>operator to participate in the completion of identified channel improvement projects along the frontage of their property, consistent with the CCRMP and CCIP, including implementation of the Channel Form Template. The agreement shall require that the operator provide a bond or other financial instrument for maintenance during the mining and reclamation period of any bank stabilization features required of the mining project. The agreement shall also require that a deed restriction be placed on the underlying property which requires maintenance of the streambank protection by future owners of the property. Maintenance of the bank stabilization features following completion of reclamation shall be the responsibility of the property owner.</p> <ul style="list-style-type: none"> (f) Off-channel excavations shall be set back a minimum of twenty-five (25) feet from riparian vegetation; and (g) Recreational facilities shall be located a minimum of one-hundred and fifty (150) feet from private dwellings, with a landscaped buffer provided to reduce noise and maintain privacy, unless the dwelling is proposed to be an integral component of the recreational facility. (h) No mining activities shall occur within two-thousand (2,000) feet of the community boundaries of Capay, Esparto, Madison, (i) Woodland, and/or Yolo. This setback may be reduced by up to five-hundred (500) feet when existing mature vegetation, proposed landscape buffers of a sufficient height and density to create a visual buffer (consisting of native species and fence-row habitat appropriate to the area), or other site-specific characteristics reduce potential incompatibilities between urban land uses and mining. Commercial mining shall not take place east of County Road 96. 	
<p>Section 10-4.437 No wastewater shall be directly discharged to Cache Creek. Sediment fines generated by aggregate processing shall either be used for agricultural soil enhancement, habitat restoration sites, or shall be placed in settling ponds, designed and operated in accordance with all applicable regulations, and used for backfill materials in off-channel excavations. Agricultural tailwater shall be diverted to catchment basins prior to its release to the creek.</p>	<p>Stormwater runoff would not leave the site during, or after completion of, the proposed mining activities. See Impact 4.8-2. Processing water from the project site would be recycled through the use of settling ponds. The discharge of aggregate wash water to the settling ponds would continue to be regulated through WDRs issued by the CVRWQCB. Based on the above, the proposed project would comply with this regulation.</p>

Surface Mining Reclamation Ordinance	
<p>Section 10-5.503</p> <p>The area of backfilled off-channel excavations extending below the groundwater table shall be minimized in order to reduce changes to groundwater levels and flow. Backfilled pits shall be oriented with regard to the direction of groundwater flow to prevent localized obstructions. If a backfilled off-channel excavation is proposed to penetrate either fifty (50) feet or one-half (1/2) into the saturated thickness of the shallow aquifer, then at least six months prior to the commencement of excavation below the average high groundwater level, the applicant shall demonstrate in a manner consistent with the Technical Studies that the pit design will not adversely affect active off-site wells within one-thousand (1,000) feet of the proposed pit boundary. If the application includes a series of backfilled pits, then the applicant shall also demonstrate that the cumulative effects of the multiple backfilled pits will not adversely affect groundwater flow, if there are any active off-site wells within one-thousand (1,000) feet of the pit boundaries.</p> <p>The applicant shall demonstrate, using MODFLOW (or a similar model of equal capability and proven reliability, as approved by the Director), that the proposed pit design would not adversely impact active off-site wells within one-thousand (1,000) feet of the proposed pit boundary or result in well failure. Average, historic low groundwater levels, which represent the condition of maximum threat to water levels in the subject well, shall be used for this simulation. If an adverse impact is identified by the MODFLOW (or other approved model) simulation, the mining and reclamation plan shall be modified, or the applicant shall submit a written agreement that the well owner has agreed to relocate or redesign the well, or accept the potential impact (at no expense to the County).</p> <p>Site-specific aquifer testing shall be conducted, if needed, to determine aquifer properties for the required modeling.</p>	<p>See discussion of Action 3.2-5.</p>

Section 10-5.507

Upon the completion of operations, grading and revegetation shall minimize erosion and convey storm water runoff from reclaimed mining areas to natural outlets or interior basins. The condition of the land shall allow sufficient drainage to prevent water pockets or undue erosion. Stormwater drainage shall be designed so as to prevent flooding on surrounding properties and County rights-of-way.

Drainage and detention facilities within the proposed mining areas and vicinity shall be designed to prevent discharges to the wet pits and surface water conveyances (i.e., creeks and sloughs) from the 20-year/1-hour storm or less. For events greater than the 20-year/1-hour storm, runoff from around the perimeter of the mining areas shall be directed into surface water conveyances. Runoff from within the lowered mining area shall be directed away from wet pits to detention/infiltration areas. Drainage plans shall not rely solely on ditches and berms to direct runoff away from the wet pit. Without proper maintenance, berms and ditches may deteriorate with time and become ineffective. Drainage plans shall emphasize grading of disturbed areas that results in broad, gentle slopes that drain away from the pits. Grading plans shall be reviewed by the County to evaluate compliance with drainage plan objectives prior to project approval.

In addition, a restriction shall be recorded on the deed that requires berms and ditches to be permanently maintained in a condition consistent with the final approval. The deed restriction shall require an inspection easement which allows County staff or other authorized personnel access for the inspection of berms and ditches. If the County determines that evidence of damage to those facilities exists, the County shall require that the owner have an inspection report for the property prepared by a Registered Geologist or Registered Civil Engineer. The inspection report, including recommendations for corrective action, if needed, shall be submitted to the Director. The property owner shall be required to implement recommended corrective actions, if any.

The project site would be graded to allow stormwater runoff to collect in the proposed mining pit, where the runoff would gradually percolate, contributing to groundwater recharge, or evaporate. At the conclusion of mining, the project site would remain contoured such that stormwater runoff would be directed to the reclaimed mining area. New stormwater detention basins would be provided within the western and eastern reclaimed agricultural areas of the site.

During mining activities, as well as upon reclamation of the site to agriculture, lake, and habitat uses, the proposed project would not include discharge of stormwater to Cache Creek. In addition, consistent with County requirements, the project site would be subject to ongoing maintenance and monitoring to ensure that the drainage facilities on the reclaimed site continue to function properly. Therefore, the proposed project would comply with this regulation.

<p>Section 10-5.508 The grading of final slopes, the replacement of soil, and associated erosion control measures shall take place prior to November 1 in areas where mining has been completed. To minimize erosion, the finish grading of mining pit slopes above the average seasonal high groundwater level, with the exception of the location of designated haul roads, shall be performed as soon as practical after the mining of overburden and unsaturated aggregate resources has been completed. A drought-tolerant, weed-free mix of native grass species shall be established on slopes prior to November 1 or alternate erosion control (mulch or netting) shall be placed on exposed soil on the slopes prior to this date. Phasing of mining to minimize the length of exposed mining slopes during the rainy season is encouraged.</p>	<p>Conditions of approval ensure compliance with this requirement. Therefore, the proposed project would comply with this regulation.</p>
<p>Section 10-5.511 Reclaimed agricultural surfaces shall be graded to provide adequate field gradients to allow surface/furrow irrigation of crops and allow for adequate storm water drainage.</p>	<p>Conditions of approval ensure that at the conclusion of mining, the project site would remain contoured such that stormwater runoff would be directed to the reclaimed mining area. Therefore, the proposed project would be consistent with this regulation.</p>
<p>Section 10-5.516 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</p>	<p>Agricultural reclamation would use a combination of overburden, processing fines, and topsoil to raise the pit floor elevation above the average high groundwater level. The Reclamation Plan proposes reclaimed agricultural field elevations of a minimum of five feet above the average high groundwater elevations. Therefore, the proposed project would comply with this regulation.</p>

<p>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.</p>	
<p>Section 10-5.517 As part of each approved long-term mining plan involving wet pit mining to be reclaimed to a permanent pond, lake, or water feature, the operator shall maintain, monitor, and report to the Director according to the standards given in this section. Requirements and restrictions are distinguished by phase of operation as described below.</p> <p>(a) Mercury Protocols. The Director shall issue and update as needed “Lower Cache Creek Off-Channel Pits Mercury Monitoring Protocols” (Protocols), which shall provide detailed requirements for mercury monitoring activities. The Protocols shall include procedures for monitoring conditions in each pit lake, and for monitoring ambient mercury level in the lower Cache Creek channel within the CCAP planning area, as described below. The Protocols shall be developed and implemented by a qualified aquatic scientist or equivalent professional acceptable to the Director. The Protocols shall identify minimum laboratory analytical reporting limits, which may not exceed the applicable response threshold identified in subsection (e) below. Data produced from implementing the Protocols shall meet or exceed applicable standards in the industry.</p> <p>(b) Ambient Mercury Level. The determination of the ambient or “baseline” fish mercury level shall be undertaken by the County every ten years in years ending in 0. This analysis shall be undertaken by the County for use as a baseline of comparison for fish mercury testing conducted in individual wet mining pits. The work to establish this baseline every ten years shall be conducted by a qualified aquatic systems scientist acceptable to the Director and provided in the form of a report to the Director. It shall be paid for by the mining permit operators on a fair-share basis. The results of monitoring and evaluation of available data shall be provided in the report to substantiate the conclusions regarding ambient concentrations of mercury in fish within the lower Cache Creek channel within the CCAP planning area.</p>	<p>See impact 4.6-1. Conditions of approval would be included to require the proposed project to comply with all applicable water quality monitoring and reporting requirements established Section 10-5.517. Therefore, the proposed project would be consistent with this regulation.</p>

(c) Pit Monitoring.

- (1) Mining Phase (including during idle periods as defined in SMARA). The operator shall monitor fish and water column profiles in each pit lake once every year during the period generally between September and November for the first five years after a pit lake is created. Fish monitoring should include sport fish where possible, together with other representative species that have comparison samples from the creek and/or other monitored ponds. Sport fish are defined as predatory, trophic level four fish such as bass, which are likely to be primary angling targets and have the highest relative mercury levels. The requirements of this subsection apply to any pit lake that is permanently wet and navigable by a monitoring vessel. If, in the initial five years after the pit lake is created, the applicable response threshold identified in subsection (e) is exceeded in any three of five monitoring years, the operator shall, solely at their own expense, undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).
- (2) Reclamation Phase. No monitoring is required after mining has concluded, during the period that an approved reclamation plan is being implemented, provided reclamation is completed within the time specified by SMARA or the project approval, whichever is sooner.
- (3) Post-Reclamation Phase. After reclamation is completed, the operator shall monitor fish and water column profiles in each pit lake at least once every two years during the period of September-November for ten years following reclamation. Monitoring shall commence in the first calendar year following completion of reclamation activities. If fish monitoring results from the post-reclamation period exceed the applicable response threshold described in subsection (e) or, for ponds that have implemented mitigation management, results do not exhibit a general decline in mercury levels, the operator shall, solely at their own expense, undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).

<p>(4) Other Monitoring Obligation. If monitoring conducted during both the mining and post-reclamation phase did not identify any exceedances of the ambient mercury level for a particular pit lake, and at the sole discretion of the Director no other relevant factors substantially support that continued monitoring is merited, the operator shall have no further obligations.</p> <p>(d) Reporting.</p> <p>(1) Pit Monitoring Results. Reporting and evaluating of subsection (c) pit monitoring results shall be conducted by a qualified aquatic scientist or equivalent professional acceptable to the Director. Monitoring activities and results shall be summarized in a single report (addressing all wet pit lakes) and submitted to the Director within six months following each annual monitoring event. The report shall include, at a minimum: (1) results from subsection (b) (pit monitoring), in relation to subsection (a) (ambient mercury levels).</p> <p>(2) Expanded Analysis Results. Reporting and evaluation of subsection (f) expanded analysis shall be conducted by a qualified aquatic scientist or equivalent professional acceptable to the Director. Results shall be summarized in a single report (addressing all affected wet pit lakes) and submitted to the Director within six months following each annual monitoring event. The report shall include, at a minimum, the results of the expanded analysis undertaken pursuant subsection (f).</p> <p>(3) Data Sharing. For pit lakes open to the public, the Director may submit the data on mercury concentrations in pit lake fish to the state Office of Environmental Health Hazard Assessment (or its successor) for developing site-specific fish consumption advisories.</p> <p>(e) Response Thresholds.</p> <p>(1) Fish Consumption Advisory. If at any time during any phase of monitoring the pit lake's average sport fish tissue mercury concentration exceeds the Sport Fish Water Quality Objective, as it may be modified by the state over time (as of 2019, the level was 0.2 mg/kg), the operator shall post fish consumption advisory signs at access points around the lake and around the lake perimeter. Catch-and-release fishing may still be</p>	
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<p>allowed. Unless site-specific guidance has been developed by the state's Office of Health Hazard Assessment or the County, statewide fish consumption guidance shall be provided.</p> <p>(2) Mining Phase Results. If, during the mining phase of monitoring, the pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three of five monitoring years, annual monitoring shall continue for an additional five years, and the operator shall undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).</p> <p>(3) Post-Reclamation Phase Results. If during the first ten years of the post-reclamation phase of monitoring, the pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three of five monitoring years, biennial monitoring shall continue for an additional ten years, and the operator shall undertake expanded analysis pursuant to subsection (f) and preparation of a lake management plan pursuant to subsection (g).</p> <p>(f) Expanded Analysis.</p> <p>(1) General. If during the mining or post-reclamation phase, any pit lake's average fish tissue mercury concentration exceeds the ambient mercury level for any three years, the operator shall undertake expanded analyses. The analysis shall include expanded lake water column profiling (a minimum of five profiles per affected wet pit lake plus one or more nonaffected lakes for control purposes) conducted during the warm season (generally May through October) in an appropriate deep profiling location for each pit lake. The following water quality parameters shall be collected at regular depth intervals, from surface to bottom of each lake, following protocols identified in subsection (a): temperature, dissolved oxygen, conductivity, pH and oxidation-reduction potential (ORP), turbidity or total suspended solids, dissolved organic matter, and algal density by Chlorophyll or Phycocyanin. The initial analysis shall also include one-time collections of fine grained (clay/silt) bottom sediments from a minimum of six well distributed locations for each affected lake, and from one or</p>	
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<p>more non-affected lakes for control purposes, to be analyzed for mercury and organic content.</p> <p>(2) Scope of Analysis. The purpose of the expanded analyses is to identify and assess potential factors linked to elevated bioaccumulation in each pit lake. The scope of the expanded analyses shall include monitoring and analysis appropriate to fulfill this purpose, invoking best practices in the industry. In addition to the analyses described in subsection (f)(1) above, the analysis should also consider such factors as: electrical conductivity, bathymetry (maximum and average depths, depth-to-surface area ratios, etc.), and trophic status indicators (concentrations, Secchi depth, chlorophyll a, fish assemblages, etc.). Additional types of testing may be indicated and appropriate if initial results are inconclusive.</p> <p>(3) Use of Results. The results of the expanded analyses undertaken pursuant to this subsection shall be used to inform the preparation of a lake management plan described below under subsection (g).</p> <p>(g) Lake Management Activities</p> <p>(1) General. If monitoring conducted during the mining or post-reclamation phases triggers the requirement to undertake expanded analysis and prepare and implement a lake management plan, the operator shall implement lake management activities designed by a qualified aquatic scientist or equivalent professional acceptable to the Director, informed by the results of subsection (f). Options for addressing elevated mercury levels may include (A) and/or (B) below at the Director's sole discretion and at the operator's sole expense.</p> <p>(A) Lake Management Plan. Prepare a lake management plan that provides a feasible, adaptive management approach to reducing fish tissue mercury concentrations to at or below the ambient mercury level. Potential mercury control methods could include, for example: addition of oxygen to or physical mixing of anoxic bottom waters; alteration of water chemistry (modify pH or organic carbon concentration); and/or removal or replacement of affected</p>	
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<p>methylmercury production and/or fish populations. The lake management plan may be subject to external peer review at the discretion of the Director. Lake management activities shall be appropriate to the phase of the operation (e.g., during mining or post-reclamation). The Lake Management Plan shall include a recommendation for continued monitoring and reporting. All costs associated with preparation and implementation of the lake management plan shall be solely those of the operator. Upon acceptance by the Director, the operator shall immediately implement the plan. The lake management plan shall generally be implemented within three years of reported results from the expanded analyses resulting from subsection (f). If lake management does not achieve acceptable results and/or demonstrate declining mercury levels after a maximum of three years of implementation, at the sole discretion of the Director, the operator may prepare an alternate management plan with reasonable likelihood of mitigating the conditions.</p> <p>(B) Revised Reclamation Plan. As an alternative to (A), or if (A) does not achieve acceptable results and/or demonstrate declining mercury levels after a maximum of three years of implementation, at the sole discretion of the Director, the operator shall prepare and submit revisions to the reclamation plan (including appropriate applications and information for permit amendment) to fill the pit lake with suitable fill material to a level no less than five (5) feet above the average seasonal high groundwater level, and modify the end use to agriculture, habitat, or open space at the discretion of the Director, subject to Article 6 of the Mining Ordinance and/or Article 8 of the Reclamation Ordinance as may be applicable.</p> <p>(2) Implementation Obligations.</p> <p>(A) If a lake management plan is triggered during the mining or post-reclamation phase and the subsequent lake management</p>	
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<p>activities do not achieve acceptable results and/or demonstrate declining mercury levels, the operator may propose different or additional measures for consideration by the Director and implementation by the operator, or the Director may direct the operator to proceed to modify the reclamation plan as described in subsection (g)(1)(B).</p> <p>(B) Notwithstanding the results of monitoring and/or lake management activities during the mining phase, the operator shall, during the post-reclamation phase, conduct the required ten years of biennial monitoring.</p> <p>(C) If monitoring conducted during the post-reclamation phase identifies three monitoring years of mercury concentrations exceeding the ambient mercury level, the operator shall implement expanded analyses as in subsection (f), to help prepare and implement a lake management plan and associated monitoring.</p> <p>(D) If subsequent monitoring after implementation of lake management activities, during the post-reclamation phase, demonstrates levels of fish tissue mercury at or below the ambient mercury level for any three monitoring years (i.e., the management plan is effective), the operator shall be obligated to continue implementation of the plan and continue monitoring, or provide adequate funding for the County to do both, in perpetuity.</p>	
<p>Section 10-5.524 Monitoring during the mining and reclamation period shall be a condition of the permit. The applicant shall ensure that the groundwater monitoring of wet pit mining continues for (10) years after the completion of reclamation.</p>	<p>Monitoring has been conducted at the project since 1996. A condition of approval will be included to require the project to continue to undertake water quality monitoring consistent with this regulation.</p>

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4.7 NOISE AND VIBRATION

4.7.1 INTRODUCTION

This Noise section of the Draft SEIR evaluates the noise environment known to occur or potentially occur within the project site and area, and assesses the effects of the proposed project on the noise environment of the County. Information for this section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR.⁴

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of proposed project. No comments pertaining to noise and vibration were submitted. NOP comment letters are included in Appendix B of this Draft SEIR.

The following subsections describe the existing noise setting of the County and specifically in the lower Cache Creek area, the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken, and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.7.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides general information on noise and vibration and technical terms, and a brief summary of the conditions described in more detail in the above-referenced documents and includes any new information relevant to noise that has become available since the 1996 EIR was published.

General Information on Noise

Noise is commonly defined as unwanted sound that annoys or disturbs people and can have an adverse psychological or physiological effect on human health. Sound is measured in decibels (dB), which is a logarithmic scale. Decibels describe the purely physical intensity of sound based on changes in air pressure, but they cannot accurately describe sound as perceived by the human ear since the human ear is only capable of hearing sound within a limited frequency range. Therefore, the frequency of a sound must be taken into account when evaluating the potential human response to sound. For this reason, a frequency-dependent weighting system is used and monitoring results are reported in A-weighted decibels (dBA). Decibels and other technical terms

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH #2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents)..

are defined in Table 4.7-1. Typical A-weighted noise levels at specific distances are shown for different noise sources in Table 4.7-2.

In an unconfined space, such as the outdoors, noise attenuates with distance. Noise levels at a known distance from point sources are reduced by 6 dBA for every doubling of that distance for hard surfaces, such as cement or asphalt surfaces, and 7.5 dBA for every doubling of distance for soft surfaces, such as undeveloped or vegetative surfaces.⁵ Noise levels at a known distance from line sources (e.g. roads, highways, and railroads) are reduced by 3 dBA for every doubling of the distance for hard surfaces and 4.5 dBA for every doubling of distance for soft surfaces.⁶ Greater decreases in noise levels can result from the presence of intervening structures or buffers.

Table 4.7-1: Definition of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound on a logarithmic scale. Sound described in decibels is usually referred to as sound or noise “level.” This unit is not used in this analysis because it includes frequencies that the human ear cannot detect.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, in a manner similar to the frequency response of the human ear, and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Equivalent Noise Level (L _{eq})	The average A-weighted noise level during the measurement period. For this CEQA evaluation, L _{eq} refers to a 1-hour period unless otherwise stated.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to sound levels during the evening from 7 to 10 p.m. and after addition of 10 decibels to sound levels during the night between 10 p.m. and 7 a.m.
Day/Night Noise Level (L _{dn})	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to sound levels during the night between 10 p.m. and 7 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Peak Particle Velocity (PPV)	The maximum instantaneous peak of a vibration signal.
Root Mean Square (RMS) Velocity	The average of the squared amplitude of a vibration signal.

Sources: Charles M. Salter Associates Inc., 1998. *Acoustics – Architecture, Engineering, the Environment*, William Stout Publishers. Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06)*.

⁵ California Department of Transportation (CalTrans), 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September

⁶ Ibid.

A typical method for determining a person’s subjective reaction to a new noise is by comparing it to existing conditions. The following describes the general effects of noise on people:⁷

- A change of 1-dBA cannot typically be perceived except in carefully controlled laboratory experiments;
- A 3-dBA change is considered a just-perceivable difference;
- A minimum of 5-dBA change is required before any noticeable change in community response is expected; and
- A 10-dBA change is subjectively perceived as approximately a doubling or halving in loudness.

Table 4.7-2: Typical Sound Levels Measured in the Environment and Industry

Noise Source (Distance in Feet)	A-Weighted Sound Level in Decibels (dBA)
Jet aircraft (200)	112
Subway Train (30)	100
Truck/Bus (50)	85
Vacuum Cleaner (10)	70
Automobile (50)	65
Normal Conversation (3)	65
Whisper (3)	42

Source: Charles M. Salter Associates Inc., 1998. *Acoustics – Architecture, Engineering, the Environment*, William Stout Publishers.

Because sound pressure levels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. For instance, if one noise source emits a sound level of 90 dBA, and a second source is placed beside the first and also emits a sound level of 90 dBA, the combined sound level is 93 dBA, not 180 dBA. When the difference between two noise levels is 10 dBA or more, the amount to be added to the higher noise level is zero. In such cases, no adjustment factor is needed because adding in the contribution of the lower noise source makes no perceptible difference in what people can hear or measure. For example, if one noise source generates a noise level of 95 dBA and another noise source is added that generates a noise level of 80 dBA, the higher noise source dominates and the combined noise level will be 95 dBA.

General Information on Vibration

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include structures (especially older masonry structures), people (especially residents, the elderly,

⁷ Charles M. Salter Associates Inc., 1998. *Acoustics – Architecture, Engineering, the Environment*, William Stout Publishers.

and sick), and vibration-sensitive equipment. As defined in Table 4.7-1, vibration measurements (i.e., amplitudes) are usually expressed as either peak particle velocity (PPV) or the root mean square (RMS) velocity. The PPV is appropriate for evaluating potential damage to buildings, but it is not suitable for evaluating human response to vibration because it takes the human body time to respond to vibration signals. The response of the human body to vibration is dependent on the average amplitude of a vibration. The RMS of a signal is the average of the squared amplitude of the signal and is more appropriate for evaluating human response to vibration. The PPV and RMS are normally described in units of inches per second (in/sec), and RMS is also often described in vibration decibels (VdB).

Description of Regional Environment

As described in the 1996 EIR, the major noise sources in the project area continue to be associated with transportation (i.e., vehicles traveling on the local and regional roadway network), agricultural and mining (including processing) activities, and aircraft activity.

Traffic Noise

The CEMEX site is served by regional freeways and highways in the state system. Regional north-south access is provided by Interstate 5 (I-5) and Interstate 505 (I-505). State Route 16 (SR 16) is located south of the site and runs in a generally east-west direction. Highway traffic noise levels are derived from the Health and Safety Element of the Yolo County General Plan and summarized below:

- I-5 travels through eastern Yolo County. Noise levels along I-5 at 100 feet from the road centerline range from 65 to 70 dBA Ldn, with the highest noise levels along roadway segments closest to the Sacramento County line.
- I-505 bisects the proposed project and noise levels at 100 feet from the roadway centerline range between 61 and 64 dBA Ldn. The segment near Winters experiences the highest volumes of traffic and levels of roadway noise.
- SR 16 provides the major connection from I-5 through Woodland, and northwest through the Capay Valley. Noise levels at 100 feet from the roadway centerline range from 63 to 65 dBA Ldn. The highest noise levels along the roadway are generally found on segments west of I-505.

Agriculture

Agricultural activities currently take place on a large portion of the project site. Noise sources associated with agricultural activities include field and crop maintenance, hauling, and crop dusting from small aircraft. The noise from these sources mostly occurs within the confines of the agricultural fields and is seasonal. A characteristic of agricultural noise is short periods of noisy activities separated by long periods of little or no noise-producing activities. Mechanical equipment and trucking are primary sources of noise associated with agricultural goods processing facilities.

Mining Operations and Hauling

Noise related to mining operations is associated with extracting sand and gravel aggregate material and transporting it to processing plants located along lower Cache Creek. Noise-generating equipment used in mining include bulldozers, loaders, scrapers, drag lines, and dredges. Aggregate material is generally transported to a processing plant by conveyors, but on-site haul trucks or scrapers are also used. The processing of aggregate material is typically done at a stationary processing plant within the boundaries of the mining site. Noise-producing activities include crushing, sorting, and loading of aggregate materials. Noise generated during processing is considered fixed-source noise. Aggregate materials, once processed, are hauled from the processing plant to construction sites within and outside of Yolo County. Noise is generated on access roads, designated haul routes (County roads) and on SR 16 and I-505, as haul trucks travel to and from the plant sites. The noise from these linear sources includes noise emanating from all other vehicles using the roadways.

Aircraft Activities

The Watts-Woodland Airport is the nearest public airport to the project site. The CNEL 60 contours for the airport are primarily within airport property,⁸ which is located approximately two miles east of the project site.

Description of Local Environment

Similar to the regional environment, the major noise sources on and adjacent to the project site are associated with vehicular activity, agricultural activities, mining and processing activities, and aircraft activity.

As explained Chapter 3 – Project Description, the asphalt and concrete plants located on the project site are operated and permitted through separate approvals from the County. While these two permits are separate and distinct, both rely exclusively on aggregate material from the permitted CEMEX operation for which annual and total tonnage (both mined and sold) are controlled through current approvals. Also, the CEMEX conditions of approval and Development Agreement require the plants to cease operation and the plant site to be reclaimed in accordance with the CCAP at the end of the permit period, unless additional mining approvals are subsequently granted by the County, as is requested as a part of the subject application. Noise generated from these existing plants is not anticipated to change under the project and therefore no further noise analysis of these facilities was conducted as part of this Draft SEIR analysis.

Noise-Sensitive Receptors

An important consideration in regard to the noise environment is the presence and location of potential noise-sensitive receptors. As defined in the Yolo County 2030 Countywide General Plan (Action HS-A62), noise-sensitive receptors include residentially designated land uses, hospitals, nursing/convalescent homes, and similar board and care facilities, hotels and lodging, schools and day care centers, and neighborhood parks.

⁸ Sacramento Area Council of Governments, 2021. Airport Noise Contours, GIS tool, accessed July 14, 2022.

The predominant land uses in the vicinity of the site include aggregate mining and processing, agriculture and open space associated with Cache Creek. To the north, the site is bounded by Cache Creek and agricultural lands that lie beyond it. To the east, the site is bounded by agriculture as well as a rural residential / commercial land use. To the south, the site is bounded by SR 16 and agriculture, with a few rural residences. To the west (with the exception of Phase 7), the site is bound by I-505. Phase 7 is bounded to the west by agriculture and rural residences. The closest rural residences are greater than 1,000 feet from the proposed surface mining disturbance boundary.

There are several schools and day care centers located in Madison. The Madison Migrant Children's Center on SR 16 near County Road 89 is located 4,400 feet away from the mining boundary as depicted in Figure 3-6). The Esparto High School located in Esparto on SR 16 is 3.2 miles away from the mining boundary. The primary medical facility is the Woodland Memorial Hospital located in the City of Woodland 6.3 miles away from the mining boundary.

4.7.3 REGULATORY CONTEXT

Since the 1996 EIR was certified, many of the applicable laws and regulations have continued to evolve. The following is a description of the current federal, State, and local environmental laws and policies that are relevant to the review of noise and vibration under the CEQA process.

Federal Regulations

The following are the federal regulations relevant to noise.

OSHA Regulations

The federal Occupational Safety and Health Administration (OSHA) addresses back-up alarms in the following regulations:

- 29 CFR 1926.601(b)(4) – motor vehicles operating on an off-highway jobsite
- 29 CFR 1926.602(a)(9) – earthmoving equipment

Off-highway vehicles must have backup alarms that are “audible above the surrounding noise level.” (29 CFR 1926.601(b)(4).) Earthmoving equipment must have backup alarms that are “distinguishable from the surrounding noise level” (29 CFR 1926.602(a)(9).)

Mine Safety and Health Administration Regulations

The federal Mine Safety and Health Administration (MSHA) addresses back-up alarms in 30 CFR 56.14132(b), which requires that self-propelled mobile equipment with an obstructed rear view have a back-up alarm that is “audible above the surrounding noise level.” (30 CFR 56.14132(b).) This provision allows for nighttime only use of an automatic reverse-activated strobe light in-lieu of an audible reverse alarm. Conveyor alarms are addressed in 30 CFR 57.14201, which provides:

- a. When the entire length of the conveyor is visible from the starting switch, the conveyor operator shall visually check to make certain that all persons are in the clear before starting the conveyor.
- b. When the entire length of the conveyor is not visible from the starting switch, a system which provides visible or audible warning shall be installed and operated to warn persons that the conveyor will be started. Within 30 seconds after the warning is given, the conveyor shall be started or a second warning shall be given.

State Regulations

The following are new and additional State environmental laws and policies relevant to noise.

California Vehicle Code

The California Vehicle Code § 27000(d)(1) provides:

A construction vehicle with a gross vehicle weight rating (GVWR) in excess of 14,000 pounds that operates at, or transports construction or industrial materials to and from, a mine or construction site, or both, shall be equipped with an automatic backup audible alarm that sounds on backing and is capable of emitting a sound audible under normal conditions from a distance of not less than 200 feet.

Cal/OSHA Regulations

The California Division of Occupational Safety and Health, known as “Cal/OSHA,” is a division of the California Department of Industrial Relations (CDIR). The CDIR regulations (Cal. Code Regs., tit. 8, § 1592.) provide the following requirements for backup warning devices:

- a. Every vehicle with a haulage capacity 2 ½ cubic yards or more used to haul dirt, rock, concrete, or other construction material shall be equipped with a warning device that operates automatically while the vehicle is backing. The warning sound shall be of such magnitude that it will normally be audible from a distance of 200 feet and will sound immediately on backing. In congested areas or areas with high ambient noise which obscures the audible alarm, a signaler, in clear view of the operator, shall direct the backing operation.
- b. Those vehicles not subject to 1592(a) and operating in areas where their backward movement would constitute a hazard to employees working in the area on foot, and where the operator’s vision is obstructed to the rear of the vehicle shall be equipped with an effective device or method to safeguard employees such as:
 - 1) An automatic back-up audible alarm which would sound immediately on backing, or
 - 2) An automatic braking device at the rear of the vehicle that will apply the safety brake immediately on contact with any obstruction to the rear, or
 - 3) In lieu of 1 or 2 above, administrative controls shall be established such as:
 - A. A spotter or flagger in clear view of the operator who shall direct the backing operation, or
 - B. Other procedures which will require the operator to dismount and circle the vehicle

- immediately prior to starting a back-up operation, or
- C. Prohibiting all foot traffic in the work area.
- 4) Other means shall be provided that will furnish safety equivalent to the foregoing for personnel working in the area.
- c. All vehicles shall be equipped with a manually operated warning device which can be clearly heard from a distance of 200 feet.
- d. The operator of all vehicles shall not leave the controls of the vehicle while it is moving under its own engine power.
- e. Hauling or earth moving operations shall be controlled in such a manner that equipment or vehicle operators know of the presence of rootpickers, spotters, lab technicians, surveyors, or other workers on foot in the areas of their operations.

Thus, vehicles with a hauling capacity of 2 ½ cubic yards or more are required to have a backup warning system that is capable of being heard at least 200 feet away. Vehicles not falling into that category have other options for backup warnings, including the use of a spotter.

Department of Industrial Relations Variance Procedures

An employer may apply to the CDIR's Occupational Safety and Health Standards Board for a permanent variance from a Cal/OSHA regulation by demonstrating by a preponderance of the evidence that an alternative program, method, practice, means, device, or process will provide equal or superior safety. (Cal. Labor Code § 143.)

Local Regulations

The following are any new or additional regulatory agencies and regulations pertinent to the proposed project on a local level not identified in the 1996 EIR (or have been substantially updated since the 1996 EIR was approved).

2030 Countywide General Plan

The 2030 Countywide General Plan contains the following goals, policies, and actions related to the noise environment that are relevant to the proposed project:

- Goal HS-7: Noise Compatibility. Protect people from the harmful effects of excessive noise.
- Policy HS-7.1: Ensure that existing and planned land uses are compatible with the current and projected noise environment. However, urban development generally experiences greater ambient (background) noise than rural areas. Increased density, as supported by the County in this General Plan, generally results in even greater ambient noise levels. It is the County's intent to meet specified indoor noise thresholds, and to create peaceful backyard living spaces where possible, but particular ambient outdoor thresholds may not always be achievable. Where residential growth is allowed pursuant to this general plan, these greater noise levels are acknowledged and accepted, notwithstanding the guidelines in Figure HS-7 [of the General Plan].

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- Policy HS-7.3: Protect important agricultural, commercial, industrial, and transportation uses from encroachment by land uses sensitive to noise and air quality impacts.
- Policy HS-7.5: Minimize the impact of noise from transportation sources including roads, rail lines, and airports on nearby sensitive land uses.
- Policy HS-7.8: Encourage local businesses to reduce vehicle and equipment noise through fleet and equipment modernization or retrofits, use of alternative fuel vehicles and installation of mufflers or other noise reducing equipment.
- Action HS-A62: Regulate the location and operation of land uses to avoid or mitigate harmful or nuisance levels of noise to the following sensitive receptors: residentially designated land uses; hospitals, nursing/convalescent homes, and similar board and care facilities; hotels and lodging; schools and day care centers; and neighborhood parks.
- Action HS-A64: Require the preparation of a noise analysis/acoustical study, including recommendations for attenuation, for all proposed projects which may result in potentially significant noise impacts to nearby sensitive land uses.

The 2030 Countywide General Plan does not have quantitative standards for maximum allowable noise or vibration levels. Yolo County has adopted the State's land use compatibility guidelines, in which noise levels from 50 to 60 Ldn or CNEL are considered normally acceptable for low density single family, duplex, and mobile homes, and noise levels from 50 to 75 Ldn or CNEL are considered normally acceptable for agricultural land uses.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to noise:

Section 10-4.421. Noise: General Standard.

From 6:00 a.m. to 6:00 p.m., noise levels shall not exceed an average noise level equivalent (Leq) of eighty (80) decibels (dBA) measured at the property boundaries of the site. However, noise levels shall not exceed an average noise level equivalent (Leq) of sixty (60) decibels (dBA) for any nearby off-site residences or other noise-sensitive land uses.

From 6:00 p.m. to 6:00 a.m., noise levels shall not exceed an average noise level equivalent (Leq) of sixty-five (65) decibels (dBA) measured at the property boundaries of the site.

At no time shall noise levels exceed a community noise equivalent (CNEL) of sixty (60) decibels (dBA) for any existing residence or other noise-sensitive land use. An existing residence shall be considered the property line of any residentially zoned area or, in the case of agricultural land, any occupied offsite residential

structures. Achieving the noise standards may involve setbacks, the use of quieter equipment adjacent to residences, the construction of landscaped berms between mining activities and residences, or other appropriate measures.

Section 10-4.422. Noise: Sonic Safety Devices.

If mining occurs within fifteen-hundred (1500) feet of residences, equipment used during nighttime activities shall be equipped with non-sonic warning devices (e.g. infrared) consistent with the California Office of Safety Hazard Administration (Cal OSHA) regulations. This may include fencing of the area to avoid pedestrian traffic, adequate lighting of the area, and placing an observer in clear view of the equipment operator to direct backing operations. If appropriate, prior to commencement of operations without sonic warning devices, operators shall file a variance request with the California OSHA Standards Board showing that the proposed operation would provide equivalent safety to adopted safety procedures, including sonic devices. This regulation applies to all sonic safety devices in use at the mining site, including sonic warnings on conveyors.

Section 10-4.423. Noise: Traffic.

Operators shall provide acoustical analysis for future truck and traffic noise associated with the individual operations along County roadways identified as experiencing significant impacts due to increased traffic noise. The study shall identify noise levels at adjacent noise-sensitive receptors and ways to control the noise to the “normally acceptable” goal of a CNEL of sixty (60) dB and reduce the increase over existing conditions to 5 dB or less. Typical measures that can be employed include the construction of noise barriers (wood or masonry), earthen berms, or re-routing of truck traffic.

4.7.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the changes in the proposed project’s potential impacts related to the noise environment. A discussion of the project’s impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. A noise and/or vibration impact is considered significant if the proposed project would:

- a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b) Generate excessive groundborne vibration or groundborne noise levels.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.
- d) Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating noise impacts.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is an explanation (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards listed above. The 1996 EIR considered that the project would have a significant effect on noise and vibration if it would result in:

- Activities exceeding an exterior noise level (Leq) of 80 dBA between 6 AM and 6 PM, measured at the property site boundary;

This standard regarding exceedance of noise levels at the site boundary has been updated and is superseded by standards of significance “a” and “d” above.

- Activities exceeding an exterior noise level (Leq) of 65 dBA between 6 PM and 6 AM, measured at the property site boundary;

This standard regarding exceedance of noise levels at the site boundary has been updated and is superseded by standards of significance “a” and “d” above.

- Exposure of sensitive receptors to long-term noise levels exceeding 60 dB CNEL;

This standard regarding exposure of sensitive receptors to long-term noise has been updated and is superseded by standards of significance “a” and “d” above.

- An increase in ambient noise levels of:
 - 0-3 decibels (Leq) - not significant
 - 4-5 decibels (Leq) - potentially significant
 - 6 or more decibels (Leq) – significant

This standard regarding an increase in ambient noise levels has been updated and is superseded by standards of significance “a” and “d” above.

- Vibration or nuisance noise.

This standard regarding vibration and nuisance noise has been updated and is superseded by standard of significance “b” above.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are identified in Table 4.7-3. The table provides a discussion of the status of each mitigation measure.

Table 4.7-3: 1996 EIR Impact Statements, Mitigation Measures, and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.9-1	The proposed project may result in an increase in ambient noise levels. This is considered to be a significant impact.	<p>Mitigation Measure 4.9-1a/Condition of Approval No. 68^a requires:</p> <p>“In compliance with Section 10-4.421 (Noise: General Standard) of the Mining Ordinance, daytime noise levels at the property boundary shall not exceed 80 dBA Leq during mining and reclamation of the site. If earth moving operations are conducted at grade within less than 58 feet from the property boundary, the applicant shall ensure that no more than one scraper is used at any one time.”</p> <p>Mitigation Measure 4.9-1b/Condition of Approval No. 69^a requires:</p> <p>“Implement the performance standards included in Section 10-4.421 of the County Off-Channel Surface Mining Ordinance.”</p> <p>These mitigation measures will apply to the proposed project and will continue to be implemented.</p>
4.9-2	Project activities may result in exposure of sensitive receptors to increased noise levels. This is considered to be a significant impact.	<p>Mitigation Measure 4.9-1b/Condition of Approval No. 69^a requires:</p> <p>“Implement the performance standards included in Section 10-4.421 of the County Off-Channel Surface Mining Ordinance.”</p> <p>These mitigation measures will apply to the proposed project and will continue to be implemented.</p>
4.9-3	The proposed project may create vibration or nuisance noise on adjoining properties. This is considered to be a significant impact.	<p>Mitigation Measure 4.9-3a/Condition of Approval No. 70^a requires:</p> <p>“Implement the performance standard included in Section 10-4.422 (Noise: Sonic Safety Devices) of the County Off-Channel Surface Mining Ordinance.”</p> <p>These mitigation measures will apply to the proposed project and continue to be implemented for nighttime mining within 1,500 feet of residences.</p>

Source: Baseline Environmental Consulting, 2021.

Notes:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review as modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of

substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.7-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The impact would be *less than significant*.

The project proposes to continue mining and reclamation activities, plant operation, and post-reclamation activities as described and evaluated in the 1996 EIR for an additional 20 years. The asphalt and concrete plants located on the project site operate under separate and distinct permits; however, both rely exclusively on aggregate material from the permitted CEMEX operation for which annual and total tonnage (both mined and sold) are controlled through current approvals. Also, the CEMEX conditions of approval and Development Agreement require the plants to cease operation and the plant site to be reclaimed in accordance with the CCAP at the end of the permit period, unless additional mining approvals are subsequently granted by the County, as is requested as a part of the subject application. Noise generated from these existing plants is not anticipated to change under the project and therefore no further noise analysis, specific to these facilities, was conducted as part of this Draft SEIR analysis. Locations for sensitive receptors are the same as described and evaluated in the 1996 EIR.

The only relevant proposed change in operation would be related to a designated stockpiling area including occasional processing of recycled construction material utilizing a portable crusher at the eastern half of Phase 2 area. A portable crusher could generate noise levels of about 83 dBA at 45 feet.⁹ The nearest sensitive receptor is located over 3,500 feet away and therefore would not be subjected to adverse noise impacts from this facility as described further below.

The 1996 EIR found that the 1996 project might exceed an exterior noise level of 80 dBA Leq during the day and 65 dBA Leq during the night at the property boundary, which would constitute a significant impact of the project. The 1996 EIR found that implementation of Mitigation Measures

⁹ Jeremy Loudon Ldn Consulting, Inc., 2011. Noise Assessment, University District Rock Crusher Conditional Use Permit, City of San Marcos. August 11. Table 1, Rock Crushing Reference Noise Levels.

4.9-1a and 4.9-1b, which specified daytime and nighttime maximum noise limits at the project site boundary and nearby receptors, would ensure that potential impacts are mitigated to a level of less than significant. Depending on location, use of the portable crusher to process recycled material (see Figure 3-11) could exceed an exterior noise level of 80 dBA Leq during the day and 65 dBA Leq during the night at the property boundary. Since the project would continue to be required to comply with these measures and the limits in the Mining Ordinance (Section 10-4.421) (and the noise limits were not changed by the CCAP Update), the potential noise impacts related to exceedance of an exterior noise level of 80 dBA Leq during the day or 65 dBA Leq during the night would continue to be less than significant.

The 1996 EIR also found that the 1996 project could expose sensitive receptors to long-term noise levels exceeding 60 dB CNEL. The 1996 EIR found that implementation of Mitigation Measure 4.9-2a would ensure that potential impacts are mitigated to a level of less than significant. The only relevant proposed change in operation would be related to the use of a portable crusher in the eastern portion of the Phase 2 area. A portable crusher could generate noise levels of about 45 dBA at the nearest sensitive receptor, which is located over 3,500 feet away. At this distance, a portable crusher could generate noise levels of about 45 dBA at the nearest sensitive receptor. Therefore, noise from a portable crusher would not expose sensitive receptors to long-term noise levels exceeding 60 dB CNEL. Since the project would continue to be required to comply with this measure (and with Mining Ordinance 10-4.421), the potential noise impacts from other activities of the project related to exposure of sensitive receptors to long-term noise levels exceeding 60 dB CNEL at sensitive receptors would continue to be less than significant.

The 1996 EIR found that increase in ambient noise levels along local roadways would not constitute a significant noise impact. Because the project would not increase hauling trips, the potential noise impacts related to increase in ambient noise levels would continue to be less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.7-2: Generation of excessive groundborne vibration or groundborne noise levels. The impact would be *less than significant*.

The project proposes to continue for mining and reclamation activities as described and evaluated in the 1996 EIR for an additional 20 years. Locations for sensitive receptors are the same as described and evaluated in the 1996 EIR.

The 1996 EIR found that the 1996 project would not generate excessive vibration and found the potential impacts from vibration to be less than significant without mitigation. Since the project would not substantially increase or change the type of equipment being used, the potential impacts related to generation of excessive groundborne vibration or groundborne noise levels would continue to be less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.7-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels. The impact would be *less than significant*.

The Watts-Woodland Airport is the nearest public airport, a portion of which is located within the southeastern portion of the CCAP area. Because the project would not introduce new people to the project area, the proposed project would not expose people to excessive noise levels. This impact is less than significant.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.7-4: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating noise impacts. The impact would be *less than significant*.

In general, the project proposes to continue mining and reclamation activities, plant operation, and post-reclamation activities as described and evaluated in the 1996 EIR for an additional 20 years. Potential impacts related to noise and vibration would be substantially similar under the proposed project and the conditions evaluated in the 1996 EIR and would remain less than significant. The 1996 EIR found that the 1996 project was consistent with applicable plans, policies, and regulations.

Table 4.7-4 below provides an analysis of the proposed project's consistency with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to noise. No proposed project modifications (relative to the 1996 project) have been identified that would result in inconsistency with applicable plans, policies, and regulations. As the proposed project is substantially similar to the 1996 project from a noise and vibration perspective, the project would also be consistent with applicable plans, policies, and regulations.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously

identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Table 4.7-4: Consistency with Applicable Plans, Policies, and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy HS-7.1 Ensure that existing and planned land uses are compatible with the current and projected noise environment. However, urban development generally experiences greater ambient (background) noise than rural areas. Increased density, as supported by the County in this General Plan, generally results in even greater ambient noise levels. It is the County's intent to meet specified indoor noise thresholds, and to create peaceful backyard living spaces where possible, but particular ambient outdoor thresholds may not always be achievable. Where residential growth is allowed pursuant to this general plan, these greater noise levels are acknowledged and accepted, notwithstanding the guidelines in Figure HS-7 [of the General Plan].</p>	<p>See Impact 4.7-1. The 1996 EIR found that increase in ambient noise levels along local roadways would not constitute a significant noise impact. Because the project would not increase hauling trips, the potential noise impacts related to increase in ambient noise levels would continue to be less than significant, and the project would be consistent with this policy.</p>
<p>Policy HS-7.3 Protect important agricultural, commercial, industrial, and transportation uses from encroachment by land uses sensitive to noise and air quality impacts.</p>	<p>Given that the proposed project is consistent with the CCAP, and would not introduce new sensitive receptors to the project area, the project would be consistent with this policy.</p>
<p>Policy HS-7.5 Minimize the impact of noise from transportation sources including roads, rail lines, and airports on nearby sensitive land uses.</p>	<p>See discussion of compatibility with Policy HS-7.1 above.</p>
<p>Policy HS-7.8 Encourage local businesses to reduce vehicle and equipment noise through fleet and equipment modernization and retrofits, use of alternative fuel vehicles, and installation of mufflers or other noise reducing equipment.</p>	<p>See Impact 4.10-1. Noise levels occurring as a result of the proposed project would not conflict with applicable General Plan standards. Therefore, the project would be consistent with this policy.</p>
<p>Action HS-A62 Regulate the location and operation of land uses to avoid or mitigate harmful or nuisance levels of noise to the following sensitive receptors: residentially designated land uses; hospitals, nursing/convalescent homes, and similar board</p>	<p>See Impact 4.10-1. Implementation of the project would not result in significant noise level increases at the nearest receptors. Therefore, the project would be consistent with this policy.</p>

and care facilities; hotels and lodging; schools and day care centers; and neighborhood parks. Home occupation uses are excluded.	
Off-Channel Mining Plan	
None applicable.	
Off-Channel Surface Mining Ordinance	
<p>Section 10-4.421 From 6:00 a.m. to 6:00 p.m., noise levels shall not exceed an average noise level equivalent (Leq) of eighty (80) decibels (dBA) measured at the property boundaries of the site. However, noise levels shall not exceed an average noise level equivalent (Leq) of sixty (60) decibels (dBA) for any nearby off-site residences or other noise-sensitive land uses. From 6:00 p.m. to 6:00 a.m., noise levels shall not exceed an average noise level equivalent (Leq) of sixty-five (65) decibels (dBA) measured at the property boundaries of the site. At no time shall noise levels exceed a community noise equivalent (CNEL) of sixty (60) decibels (dBA) for any existing residence or other noise sensitive land use. An existing residence shall be considered the property line of any residentially zoned area or, in the case of agricultural land, any occupied offsite residential structures. Achieving the noise standards may involve setbacks, the use of quieter equipment adjacent to residences, the construction of landscaped berms between mining activities and residences, or other appropriate measures. (§ 1, Ord. 1190, eff. September 5, 1996)</p>	<p>See Impact 4.10-1. At the project site boundaries, the proposed project would not conflict with the 80 dB Leq standard established by the Mining Ordinance. The 1996 EIR found that implementation of Mitigation Measures 4.9-1a and 4.9-1b, which specified daytime and nighttime maximum noise limits at the project site boundary and nearby receptors, would ensure that potential impacts are mitigated to a level of less than significant. Continued implementation of 1996 EIR Mitigation Measures would ensure that project noise levels at the existing residential receptors in the project vicinity would comply with the 60 dB Leq noise threshold established by Mining Ordinance Section 10-4.421. Therefore, the project would be consistent with this regulation.</p>
<p>Section 10-4.422 If mining occurs within fifteen-hundred (1500) feet of residences, equipment used during nighttime activities shall be equipped with non-sonic warning devices (e.g. infrared) consistent with the California Office of Safety Hazard Administration (Cal OSHA) regulations. This may include fencing of the area to avoid pedestrian traffic, adequate lighting of the area, and placing an observer in clear view of the equipment operator to direct backing operations. If appropriate, prior to commencement of operations without sonic warning devices, operators shall file a variance request with the California OSHA Standards Board showing that the proposed operation would provide equivalent safety to adopted safety procedures, including sonic devices. This regulation applies to all sonic safety devices in use at the mining site, including sonic warnings on conveyors.</p>	<p>No mining currently occurs within 1,500 feet of a residence. Under the proposed project, mining would occur within 1,500 feet of a residence during mining of Phase 6. Per the proposed project mining plan, CEMEX will retrofit its equipment with non-sonic warning devices prior to mining during nighttime hours within 1,500 feet of the residence to the east of Phase 6. Therefore, the project would be consistent with this regulation.</p>
<p>Section 10-4.423 Operators shall provide acoustical analysis for future truck and traffic noise associated with the individual operations along County roadways identified as experiencing significant impacts due to increased traffic noise. The study shall identify noise levels at adjacent noise sensitive receptors</p>	<p>See discussion of compatibility with Policy HS-7.1 above.</p>

and ways to control the noise to the "normally acceptable" goal of a Ldn of sixty (60) dB and reduce the increase over existing conditions to five (5) dBA or less. Typical measures that can be employed include the construction of noise barriers (wood or masonry), earthen berms, or re-routing of truck traffic.	
Reclamation Ordinance	
None applicable	

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4.8 TRANSPORTATION AND CIRCULATION

4.8.1 INTRODUCTION

This Transportation and Circulation section of the Draft SEIR describes the transportation system and conditions in the project area, and assesses the transportation and circulation effects of the proposed project. Information for the section has been drawn primarily from the Yolo County General Plan¹ and associated EIR,² the Cache Creek Area Plan (CCAP) Update FEIR,³ the 1996 EIR⁴, and the following project-specific documents:

- Traffic Operations Memorandum, David Manciatì, Fehr & Peers, July 18, 2022
- Information Related to Vehicle Trips, electronic mail from Yasha Saber to Yolo County, December 6, 2021

Government agencies and the public were provided an opportunity to comment on the proposed project in response to the Notice of Preparation (NOP) that provided a preliminary summary of the proposed project. The following comments were submitted by the California Department of Transportation (Caltrans) District 3 in letters dated February 26, 2021, March 4, 2021, and March 29, 2021, and responses are included in *italics*. NOP comment letters are included in Appendix B of this Draft SEIR.

- Please provide the anticipated increase in truck trips (if any) from the site due to the proposed project.

Please see subsection 4.8.4 below, which describes that there is no proposed change in facility operations or permitted annual maximum production levels. See also Impact 4.8-1, below.

- Please provide the trip distribution of the new trips for the proposed project.

Given that the project does not propose production increases above current permitted levels or any modifications to the roadway system, trip distribution was not developed. Please see Impact 4.8-4 and Appendix K, Traffic Operations Memorandum.

- All work proposed and performed within the State's highway right of way must be in accordance with Caltrans' standards and require a Caltrans Encroachment Permit prior to beginning construction.

¹ Yolo County. 2030 Countywide General Plan. November 10, 2009.

² Yolo County. Yolo County 2030 Countywide General Plan Environmental Impact Report. SCH #2008102034. April 2009.

³ Yolo County. Cache Creek Area Plan Update Project, Final Environmental Impact Report. SCH # 2017052069. December 2019.

⁴ Yolo County, 1996, Final Environmental Impact Report for Solano Long-term Off-Channel Mining Permit Application SCH #96012034, (combined DEIR and Responses to Comments documents).

No modification to the existing roadway system is proposed by the project. Also, the applicant proposes to eliminate Phase 7 of the current approval which would avoid mining and associated impacts on the west side of I-505. This would avoid truck trips east from Phase 5 over I-505 to the plant and/or conveyance of aggregate under I-505.

The Madison Fire Protection District (District) provided NOP comments in correspondence dated February 26, 2021 (see Appendix B). The District raised the following point relevant to transportation and circulation (responses are noted in *italics*).

- There could be a possible impact on traffic with more vehicles in and out of the plant entrance on State Route (SR) 16.

Potential traffic impacts are identified and evaluated in this section. Impacts are shown to be less than significant with the exception of VMT and LOS at the intersection of SR 16 and CR 96. The project will not result in an increase in the permitted annual capacity attributable to CEMEX, and thus may result in the same average VMT as has occurred under existing conditions. However, it is also feasible that CEMEX will maximize its production in any given year, which would result in a greater VMT as compared to existing average conditions. In order to fully analyze this potential impact and to advance CEQA's policy of being more protective of the environment, this Draft SEIR conservatively measures VMT over the proposed 20-year extended permit period assuming CEMEX will maximize its production, even though historical data show actual volumes being lower. See analysis of Impact 4.8-1.

The analysis demonstrates that the intersection of SR 16 and CR 96 has an existing LOS deficiency that cannot be reasonably or feasibly resolved by the proposed project because the required reduction in trips to achieve the target LOS would likely exceed the proposed project's entire trip contribution during AM and PM peak hours. In other words, restricting all trip generation from the CEMEX site during the AM and PM peak hours would not produce acceptable peak hour operations at the subject intersection. See analysis of Impact 4.8-4

The following subsections describe the existing transportation and circulation setting of the study area (specifically in the lower Cache Creek area), the applicable regulatory framework, standards of significance used to determine potential environmental effects that may result from implementation of the project, potentially significant impacts associated with relevant substantial changes in the project and/or the circumstances under which the project will be undertaken and/or new information as defined by CEQA Guidelines Section 15162, and new or different feasible mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

4.8.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides a brief summary of the conditions relevant to the project's potential impacts related to VMT and safety.

Description of Regional Environment

Regarding transportation resources, the regional environment has not changed significantly since the 1996 EIR. As noted in that document, the project site is in a rural environment characterized by agricultural uses including orchards, field crops, and open land. Residential development is limited in the area, with rural residences scattered throughout the region. The only significant urban uses within the study area (shown on Figure 3-1) are in the unincorporated communities of Madison and Capay. The City of Woodland is located approximately 8 miles east of the project site. Aggregate mining operations, inclusive of above-ground structures and equipment, are prevalent throughout the region, in particular, along the banks of Cache Creek, within the Cache Creek Area Plan (CCAP) boundaries.

The transportation system within the planning area continues to be almost entirely dependent on the roadway system for the movement of goods and people. The automobile is the primary travel mode for most trips. The majority of regional travel occurs on Interstate 5 (I-5), Interstate 505 (I-505) and State Route 16 (SR 16).

Regional access to the project area is provided by SR 16. SR 16 is an east-west highway that runs from SR 20 in Colusa County to SR 49, outside Plymouth in Amador County. SR 16 is part of the California Freeway and Expressway System. The portion of SR 16 that passes through Woodland runs from west of I-505 to County Road 98, at which point SR 16/County Road 98 runs north-south to I-5. SR 16 is a two-lane roadway with a speed limit of up to 55 miles per hour (mph) outside of developed areas. The nearest major highways to the project site are I-5 and I-505. Both are north-south highways with two lanes in each direction near SR 16. The County roads in the vicinity primarily service rural areas.

Description of Local Environment

Like the regional environment, there have been no significant changes to the local transportation system and status of local facilities, including travel on the roads, public transit, the bicycle/pedestrian system, and school buses.

Roadway System

The 1996 EIR provides a description of the following roads, all of which are still relevant to current conditions:

- **I-5** serves the eastern portion of the CCAP planning area and maintains interchange access at County Road 13, County Road 98, and several streets within the city of Woodland.
- **I-505** is a four-lane, north-south freeway that connects with Interstate 80 (I-80) near Vacaville and I-5 near Dunnigan. An interchange exists at SR 16 near the project site (see Figure 3-2).
- **SR 16** is a two-lane, east-west highway that traverses Amador, Sacramento, Yolo, and Colusa Counties. SR 16 begins at I-5 and intersects Main Street in Woodland 3 miles to the south. It then runs west for several miles through western Yolo County, eventually

turning in a northwesterly direction into western Colusa County. The project site is generally bordered by SR 16 along its southern boundary. Passing is permitted along portions of SR 16.

- **County Road 98** is a north-south road that forms the western boundary of the City of Woodland. County Road 98 begins at I-80 as Pedrick Road. It continues north through the western outskirts of Davis to Woodland where it forms the SR 16/County Road 98/W. Main Street intersection. For the purposes of this Draft SEIR, the concurrent 3-mile section of road north of this intersection, known both as SR 16 and County Road 98, is referred to as County Road 98.

Level of Service

Level of service (LOS) is a term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay, and safety. The level of service of a facility is designated with a letter, A to F, with A representing the best operating conditions and F the worst.

The following intersections were selected by the County as relevant to the proposed project (these are the same locations analyzed for the project's 1996 EIR):

1. SR 16/I-505 Southbound Ramps
2. SR 16/I-505 Northbound Ramps
3. SR 16/CEMEX Driveway
4. SR 16/County Road 96
5. County Road 98/SR 16/W. Main Street
6. County Road 98/County Road 20/W. Kentucky Avenue

Based on the results of a traffic operations analysis,⁵ each intersection operates at LOS C or better during the AM and PM peak hours, except for SR 16/County Road 96 (CR 96). The minor street (CR 96) approach to the intersection operates at LOS F. This indicates that drivers in busy months are waiting over 50 seconds before accessing SR 16.

Vehicle Miles Travelled

Total vehicle traffic associated with the existing CEMEX plant can be quantified in terms of vehicle miles travelled (VMT), which is a function of the amount of material produced and exported from the site. Under existing permits, CEMEX has a maximum permitted level of production equal to 1,200,000 tons mined per year and 1,000,000 tons sold; however actual annual excavation has varied from year to year and is generally lower than the maximum allowed. The Draft SEIR relies on the 10-year average annual production level in order to provide a more realistic representation of existing traffic conditions (given the use of actual data) and a more conservative (i.e., more protective of the environment) analysis. The existing VMT was evaluated using average annual production over the ten-year period between 2012 and 2021. During this period, CEMEX sold an average of 735,448 tons of aggregate material per year. The 10-year average is a conservative baseline because the 10-year average annual tonnage is lower than the maximum permitted

⁵ Fehr and Peers, 2022. CEMEX SEIR – Traffic Operations Memorandum, July 18. (Appendix K)

annual extraction, lower than the actual annual production for the year the NOP was released, and reflects a period of economic recession. The selection of this lower figure as the baseline results in a higher estimate of the project’s impact on VMT.

While an analysis of VMT from heavy truck trips is not required pursuant to SB 743 and the CEQA Guidelines, it is not precluded, and therefore, the County has included it in this analysis. The legislative intent of SB 743, and the associated CEQA Guidelines Section 15064.3, is to ensure that lead agencies include an equitable and appropriate analysis of VMT from infill, which explains the focus on passenger car and light truck trips related to land use projects. Consistent with the Governor’s Office of Planning and Research (OPR) guidance, for urban infill development, it is defensible to exclude heavy truck trips based on this premise. However, for projects such as the subject aggregate mine, where the primary traffic issue concerns truck trips associated with hauling, it is the position of the County that truck trips should be analyzed in the EIR. Hence both VMT and truck haul trips generation are analyzed.

For the purposes of assessing mining land use projects, VMT is a two-part formula calculated by the following equation:

$$VMT = (Avg. trip length \times Vehicle trips)_{Trucks} + (Avg. trip length \times Vehicle trips)_{Employees}$$

CEMEX has historical records documenting customer sales at the subject plant site (Madison Cache Creek plant). Data from 2020 and 2021 was used to derive the average number of truck trips per year and the average truck trip length. In addition, CEMEX generates truck trips resulting from hauling recyclable material independent of aggregate resource trips. Using CEMEX recyclable material data (2012 to 2021), an estimate of annual recyclable material truck trips (independent of aggregate trips) was made. Between 2012 and 2021, CEMEX processed an average of 30,003 tons of recycled material per year.

CEMEX also provided information regarding employee residence locations, average number of employees working per day, and average number of work days per year. This data was used to derive employee vehicle trip generation and trip length.

Together, both employee and truck inputs were used to develop truck and employee VMT estimates under existing conditions. Table 4.8-1 shows that the existing conditions (ten-year average) VMT is 2,395,346 vehicle miles travelled per year.

Table 4.8-1: Existing Conditions Annual VMT (10-Year Average) at CEMEX Plant

Metric	Existing Conditions (10-Year Average)
Annual Sales	735,448 tons
Employee Avg. Trip Length (Round Trip)	89.5
Truck Avg. Trip Length (Round Trip)	62.4
Employee Annual VMT	428,439
Truck Annual VMT ^a	1,966,907
Total Annual VMT	2,395,346

Source: Fehr & Peers, 2022. Truck capacity source: Saber, Y., December 6, 2021

^a Truck Annual VMT includes both aggregate material sold and hauled off-site by truck (24.4 tons per truck) and an estimate of recyclable material truck trips (independent of aggregate trips), assuming an average truck load of 22 tons

Safety

Pavement Condition

The CEMEX haul route connects directly from a private road to SR 16 and does not use any County roads in its operation. Since SR 16 is part of the California State Highway System (SHS), Caltrans is the responsible agency for pavement management.

Based on the most recent results (2019) generated by PaveM, Caltrans' pavement management tool, all individual segments of SR 16 from I-505 to I-5 have either "good" or "fair" pavement condition, per Caltrans' interpretation of the federal *Moving Ahead for Progress in the 21st Century Act* (MAP-21) rules for categorizing pavement condition based on ride, rutting/faulting, and cracking. Under Caltrans' interpretation of the MAP-21 rules, roadway segments rated "fair" have two of the three criteria (i.e., ride, rutting/faulting, and cracking) rated at least "fair". If most criteria (i.e., at least two of three) are rated "poor", then the pavement condition is interpreted to be "poor". Most SR 16 segments between I-505 and County Road 93 are rated as "good", while all segments between County Road 93 and I-5 are rated as "fair".

Relevant to safety, a review of aerial imagery shows that striping has faded at the SR 16/CEMEX driveway intersection, including the driveway stop lines, "STOP" markings, and centerline. Section 3A.04 of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD) states that the "materials used for markings should provide the specified color throughout their useful life." It is the responsibility of Yolo County and Caltrans to evaluate whether or not current conditions are acceptable.

Design Standards & Collisions

The CEMEX site has direct access to SR 16 from a private road and no other haul routes are used by the project site to access the SHS. Therefore, the project does not directly contribute to traffic on County-owned roadways. As to the SHS, Caltrans is the responsible agency for safety and approaches safety through three primary elements – design standard compliance, collision history, and collision risk. The agency develops its transportation network consistent with applicable design standards and has standardized traffic safety investigations to address safety concerns. Under guidance in the new *Interim Local Development and Intergovernmental Review (LIDGR) Safety Practitioners Guidance* (Caltrans, 2020), Caltrans is responsible for providing lead agencies with a safety analysis of the State Highway System in the project vicinity for use in CEQA environmental documents. As noted earlier, Caltrans submitted comments during the NOP comment period related to truck traffic and trip distribution. No comments were received regarding safety issues of the SHS.

4.8.3 REGULATORY CONTEXT

Since the 1996 EIR was certified, some applicable laws and regulations have continued to evolve. The following is a description of the current federal, State, and local environmental laws and policies that are relevant to the review of transportation impacts for CEQA compliance.

Federal Regulations

No federal plans, policies, regulations, or laws related to transportation and circulation apply to the analysis of potential project transportation impacts.

State Regulations

Senate Bill 743

SB 743 (Stats. 2013, ch. 386) requires the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metric beyond TPAs. In the amended CEQA Guidelines, OPR selected automobile VMT as the preferred transportation impact metric and applied their discretion to recommend its use statewide. Determination of impacts based on VMT is required statewide as of July 1, 2020.

SB 743 also added Section 21099 to the Public Resources Code, which states that automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the CEQA Guidelines by the California Natural Resources Agency. Since the amended CEQA Guidelines were certified in December 2018, LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

CEQA Guidelines Section 15064.3

Section 15064.3 of the CEQA Guidelines was added in 2018 to address the requirements of SB 743 and OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA. Section 15064.3 states the following:

(a) Purpose.

This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less-than-significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less-than-significant transportation impact.

(2) **Transportation Projects.** Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less-than-significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) **Qualitative Analysis.** If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) **Applicability.**

The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways in Yolo County. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State Highway System within the County need to be approved by Caltrans. As part of its responsibilities, Caltrans reviews local development projects subject to CEQA to assess potential impacts to the State Highway System based on the following technical guidance.

- Vehicle Miles Traveled-Focused Transportation Impact Study Guide, Caltrans, May 20, 2020. (Referred to as the VMT TISG in the remainder of the document.)
- Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance, Caltrans, December 18, 2020 (Referred to as the Caltrans Safety Impact Guidance in the remainder of the document).

VMT TISG

The VMT TISG outlines how Caltrans will review land use projects with a focus on supporting state land use goals, state planning priorities, and GHG emission reduction goals. The VMT TISG endorses OPR's Technical Advisory as the basis for transportation impact analysis methodology and thresholds including the use of screening to streamline qualified projects because they help achieve the state's VMT reduction and mode shift goals.

Caltrans Safety Impact Guidance

The Caltrans Safety Impact Guidance provides technical instructions on how to evaluate potential safety impacts to the State Highway System. This guidance largely focuses on the actions of Caltrans district staff in performing the analysis and providing relevant impact information to lead agencies. The interim guidance recommends that safety analyses include a review of three primary elements related to transportation safety – design standard compliance, collision history, and collision risk (consistent with the Federal Highway Administration's Systemic Approach to Safety). The interim guidance does not establish specific analysis methods or significance thresholds for determining safety impacts under CEQA. Additionally, Caltrans notes that local agencies may use the interim guidance at their own discretion as a guide for review of local facilities.

Local Regulations

Sacramento Area Council of Governments (SACOG)

SACOG is the Metropolitan Planning Organization (MPO) governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties and their 22 cities. SACOG is responsible for the regional transportation plan (RTP) and Sustainable Communities Strategy (SCS). The current SACOG RTP/SCS is entitled 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (2019).

The SACOG 2020 MTP/SCS provides the basis for air quality conformity findings related to the national Clean Air Act and determinations of whether the region is complying with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with the plan could jeopardize the plan's effectiveness for air pollution and GHG reduction. Consequently, consistency with the MTP/SCS is a potential basis for determining adverse impacts related to these environmental topics.

The 2020 MTP/SCS contains a project list, which identifies near- and long-term transportation programs, infrastructure investments, and improvements in the SACOG region. The project list currently includes the following two projects in the study area:

- SR 16 Pavement Rehabilitation C – In Yolo County on SR 16 from CR 98 to I-5 Junction (PM R40.5/R43.42; SHOPP ID 20445)
- SR 16 Safety Improvement Project – Shoulder widening, curve correction, left-turn channelization, signalization, and two-way left-turn lanes from 0.4 mile west of CR 79 to 0.4 mile east of CR 79 and from Esparto to 0.2 mile west of I-505, (PM 20.5/31.6)

2030 Countywide General Plan

The 2030 Countywide General Plan contains the following goals, policies, and actions relevant to the proposed project:

Goal CI-3: Service Thresholds. Balance the preservation of community and rural values with a safe and efficient circulation system.

Policy CI-3.1: Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions, or require additional improvements to maintain the required level of service, except as specified below. The intent of this policy is to consider level of service as a limit on the capacity of the County's roadways. (Only those segments relative the project site are shown)

E. State Route 16 (County Road 78 to County Road 85B) – LOS D is acceptable.

F. State Route 16 (County Road 85B to County Road 21A) – LOS E is acceptable.

G. State Route 16 (County Road 21A to Interstate 505) – LOS D is acceptable, assuming that this segment is widened to four lanes with intersection improvements appropriate for an arterial roadway. The County will secure a fair share towards these improvements from planned development. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to provide funding for the project.

H. State Route 16 (Interstate 505 to County Road 98) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to establish a funding mechanism to pay the remainder.

X. Additional exceptions to this policy may be allowed by the Board of Supervisors on a case-by-case basis, where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following:

1. Preserving agriculture or open space land;
2. Enhancing the agricultural economy;
3. Preserving scenic roadways/highways;
4. Preserving the rural character of the county;
5. Avoiding adverse impacts to alternative transportation modes;
6. Avoiding growth inducement; or

7. Preserving downtown community environments.

8. Where right-of-way constraints would make the improvements infeasible.

Policy CI-3.3: CEQA review for subsequent projects will analyze project traffic and circulation impacts using both the Yolo County General Plan policies and Caltrans policies (based on the CSMPs, TCCRs, or other guidelines) as applicable.

A. Consider the following objectives, following consultation with Caltrans, when making decisions to expand or modify the State highway system in Yolo County:

1. Minimize impacts to the environment.
2. Minimize increases in greenhouse gases and air pollutants.
3. Minimize increases in VMT.
4. Minimize long-distance commute trips.
5. Fully utilize existing capacity while maintaining stable flows and speeds.
6. Provide facilities for all users including pedestrians, bicyclists, carpool users and transit riders.

B. Consider the following objectives when making decisions to expand the County road system in Yolo County:

1. Minimize impacts to the environment.
2. Promote designs that result in a decrease of greenhouse gases and air pollutants.
3. Promote designs that decrease Vehicle Miles Traveled (VMT) and long-distance commute trips.
4. Fully utilize existing capacity in accordance with adopted Levels of Service.
5. Provide facilities for all users including pedestrians, bicyclists, carpool users and transit riders, where appropriate.

Policy CI-3.4: Define level of service consistent with the latest edition of the Highway Capacity Manual and calculate using the methodologies contained in that manual. At a minimum, weekday AM and PM peak hour traffic volumes will be used in determining compliance with the level of service standard. For recreational and other non-typical peak hour uses, weekday afternoon, weekday late evening, or weekends shall be considered.

Policy CI-3.7: Consider designs for planned roadway capacity improvements that recognize the unique conditions associated with rural and agricultural

areas in accordance with established standards including, but not limited to, the following:

- American Association of State Highway and Transportation Officials (AASHTO) publication “A Policy on Geometric Design of Highways and Streets;”
- Caltrans’ Main Streets: Flexibility in Design and Operations;
- Federal Highway Administration’s Flexibility in Highway Design;
- 2007 California Fire Code; and
- Institute of Transportation Engineers’ Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities.

Policy CI-3.9: To the greatest feasible extent, require new development to construct safety improvements consistent with current design standards on existing roadways that are anticipated to accommodate additional traffic from planned development.

Policy CI-3.10: Upgrade the existing County road system to be consistent with current County design standards (such as horizontal curvature, site distance, etc.) as transportation funding allows. Roadways that require design improvements to accommodate projected future traffic, as identified in Table CI-1, shall have the highest priority to be upgraded. Safety shall be a key factor in prioritizing specific projects.

These roadways also represent targeted trucking corridors for agricultural (“farm-to-market”) transport and other goods movement. By attracting truck trips to these corridors, other roadways throughout the County are more available for movement of agricultural equipment and farm workers thus supporting more efficient and safe agricultural operations countywide.

Exceptions to design standards may be allowed where circumstances warrant special treatment of the roadway including, but not limited to, the following:

- A. Extraordinary construction costs due to terrain, roadside development, or unusual right-of-way needs.
- B. Environmental constraints that may otherwise preclude road improvement to the adopted standards.
- C. Exceptions to the level of service policy specified in Policy CI-3.1.

Policy CI-3.11: Require new development to finance and construct all off-site circulation improvements necessary to mitigate a project’s transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts, and impacts to the State Highway System). For

mitigation to be considered feasible, it must be consistent with the policies of the General Plan.

- Policy CI-3.12: Collect the fair share cost of all feasible transportation improvements necessary to reduce the severity of cumulative transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts).
- Policy CI-3.13: Ensure that transportation and circulation improvements (including improvements to comply with County design standards) are constructed and operational prior to or concurrent with the need, to the extent feasible.
- Policy CI-3.16: Ensure that funding for the long-term maintenance of affected roads is provided by planned development.
- Policy CI-3.18: Ensure adequate access for emergency vehicles.
- Policy CI-7.2: Encourage movement of goods by truck on freeways and other appropriate designated routes.
- Action CI-A9: Continue to implement and enforce design standards for industrial and highway commercial roadways to accommodate heavier loads associated with truck operations and larger turning radii to facilitate truck movements. (Policy CI-7.2) Responsibility: Planning and Public Works Department
Timeframe: 2010/2011; Ongoing
- Action CI-A16: Require new development to enter into an agreement with the County that establishes circulation improvements to be constructed and/or fair share costs to be the responsibility of the project applicant. (Policy CI-3.10, Policy CI-3.12, Policy CI-3.14) Responsibility: Planning and Public Works Department
Timeframe: Ongoing

Off-Channel Mining Plan

The following goal and action from the adopted Yolo County Off-Channel Mining Plan (OCMP) related to transportation and circulation are applicable to the proposed project:

- Goal 2.2-3: Prevent or minimize the adverse environmental effects of surface mining.
- Action 2.4-21: Ensure that each mining operation adheres to approved haul routes and approved ingress/egress locations. Ensure through conditions of approval and other appropriate mechanisms that mining operations are funding their fair share of roadway and related impacts, including both one-time improvements and ongoing operations and maintenance, along approved haul routes and in proximity to approved operation ingress/egress locations.

Transportation Impact Study Guidelines

The County's Transportation Impact Study Guidelines document establishes protocol for transportation impact studies and reports based on the current state-of-the-practice in transportation planning and engineering. The following types of projects, which involve development activity in and around Yolo County and affect the County's transportation system, may require a Transportation Impact Study per the Guidelines:

- Transportation infrastructure modification or expansion, including CIP projects on County roads and state highways.
- Land use entitlements requiring discretionary approval by Yolo County, including annexations, general plan amendments, specific plans, zoning changes, conditional use permits, and tentative maps.
- Land use activity advanced by agencies other than Yolo County that is subject to jurisdictional review under State and federal law.
- Land use activity advanced by agencies other than Yolo County that is inconsistent with the County's General Plan.

Off-Channel Surface Mining Ordinance

Title 10, Chapter 4 of the Yolo County Code contains the Off-Channel Surface Mining Ordinance (Mining Ordinance), which provides the following requirements relevant to transportation and circulation:

Section 10-4.402. Access Roads.

The first one-hundred (100) feet of access road intersecting a County-maintained road shall be surfaced in a manner approved by the Public Works Department, with an approach constructed to County standards. Traffic control and warning signs shall be installed as required by the Public Works Department.

Section 10-4.408. County Road Improvements.

It is the intent of this program that each operator shall pay for any road improvements determined to be necessary to support their operation consistent with County and CCAP standards, and for ongoing operations and maintenance. Each operator shall pay its fair share toward improvements required to maintain a structural capacity (traffic index) sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area consistent with applicable General Plan policies related to LOS and applicable State policy related to VMT. Fair share mitigation shall also be required to improve existing operational as well as structural deficiencies of the transportation system. Specific locations shall be identified through the project-specific environmental review process for each operator's long term mining permit application. Each operator shall participate in a funding program operated by the

County which is designed to ensure that all improvements are made in a timely manner and that a reimbursement mechanism is in place to ensure repayment of any costs contributed in excess of fair share amounts. The program shall be initiated upon the approval of the long term mining permits and shall be updated biennially by the County to ensure any new or modified impacts or funding sources are being addressed.

Each operator shall have the option to complete the work at their expense without triggering the competitive bid process, as long as they comply with the applicable legal requirements of the County. If the operator declines the option, the County shall utilize the competitive bid process.

Section 10-4.409. County Road Maintenance.

The operator shall agree to assume joint pavement maintenance responsibility with the County (or shared with another producer using the same roadway) for all County roads along a designated haul route from the access point of the surface mining operation to an appropriate State Highway. The County will provide maintenance of the county-maintained roadside drainage ditches, traffic signs, and striping. By May 15 of each year, the operator shall submit to the County an annual evaluation report documenting the structural integrity of the pavement structural section and the PCI of the roads maintained by the operator. The annual report shall be signed and sealed by a civil engineer licensed in the State of California. The report shall contain a proposed action plan for pavement maintenance and pavement improvements to maintain safe and efficient traffic operation on the roads, and a PCI of 70 or more, unless otherwise agreed by the County, as defined by American Society for Testing and Materials (ASTM) Method D6433 (Standard Practice for Roads and Parking Lots Pavement Condition Index Survey), for each upcoming year. Within 30 days, the County will review the report and recommend revisions if necessary. Following acceptance of the report by the County, the operator shall secure a County encroachment permit specific to the action plan (at no cost to the operator) and complete the proposed pavement maintenance and improvement activities prior to the submittal of the annual report. Striping may be provided by the County if County striping equipment and material are available. Otherwise striping will be provided by the operator. Once the work is completed, the operator will resubmit the annual evaluation report by November 1 each year, and include the scope and dates that work was completed.

If minor emergency asphalt repairs (work requiring a single County Public Works maintenance pick-up truck with asphalt patching material) are identified within the maintenance areas of the hauling routes after the Applicant's yearly maintenance has been completed, county crews will perform the minor asphalt repair maintenance once in a sixty (60) consecutive day period. The types of asphalt pavement failures requiring repairs include, but are not limited to, cracking, pot holes, depressions, rutting, shoving, upheaval, and raveling and any other pavement damage or failures requiring immediate repair by the county.

If major emergency roadway repairs associated with the permitted activities (work requiring more than a single County Public Works maintenance pick-up truck with asphalt patching material, or minor asphalt repairs occurring in less than the sixty (60) consecutive day period) are identified after the Applicant's yearly maintenance has been completed, the Applicant shall obtain a County encroachment permit (at no cost to Applicant) and complete the major roadway repairs. If major roadway repairs that are the Applicant's fair share obligation are not completed by the Applicant in a timely manner as determined by the County, and the County must make repairs when the public's safety is considered at risk by the County Engineer, then the Applicant will be billed for the County's major roadway repair work on a time and materials basis. An applicant may coordinate with the County to have the County complete required improvements, and in such case, must fully fund the County's costs to do so. The operator does not assume the liability for the roadway, except for cases where the operator has not fulfilled its maintenance obligations.

If a subsequent mining operation utilizes a road previously required to be improved pursuant to this subsection, then the subsequent operator shall be responsible for compliance with the agreements and requirements of the previous operator.

4.8.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the project's potential impacts related to transportation and circulation. A discussion of the project's impacts, as well as mitigation measures where necessary, are also presented.

Standards of Significance

The significance criteria used for this analysis were developed from Appendix G of the CEQA Guidelines, and applicable policies and regulations of Yolo County. The transportation impact is considered significant if the proposed project would:

Cause an increase in baseline total VMT.

Cause an inconsistency with applicable design standards.

Cause a substantial decrease in safety.

Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating transportation impacts.

The standards of significance presented in the 1996 EIR are listed below. For each standard, there is an explanation (*in italics*) describing how the standard from the 1996 EIR is addressed by the updated standards above. The 1996 EIR considered that the project would have a significant effect on transportation resources if it would:

- Change the level of service of a County roadway segment or intersection from acceptable levels (i.e., LOS A, B, or C) to unacceptable levels (i.e., LOS D, E, or F), as specified by Circulation Policy CIR-7 (now CI-3.1) of the Yolo County General Plan.

Level of service (LOS) is a general measure of traffic operating conditions whereby a letter grade, from A to F, is assigned. The grades represent the perspective of drivers and are an indication of the comfort and convenience associated with the driving experience, as well as speed, travel time, traffic interruptions, and freedom to maneuver a typical vehicle. However, LOS does not fully describe environmental effects associated with fuel consumption, emissions, and public health.

Previously, many lead agencies used LOS to assess the significance of transportation impacts pursuant to CEQA. As a result of SB 743, local jurisdictions no longer rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. However, because the County considers LOS as a matter of General Plan policy (Policy CI-3.1) existing LOS remains relevant to project consideration. This Draft SEIR does not utilize LOS for determination of transportation or circulation impact significance, but does consider LOS as a component of General Plan consistency related to County General Plan Policy CI-3.1, which establishes LOS thresholds on certain County roads. See Impact 4.8-4.

- Change the level of service on a State highway from acceptable levels (i.e., LOS A, B, C, or D) to unacceptable levels (i.e., LOS E or F) as specified by the Route Concept and Development Report for State Route 16 (Caltrans, 1987).

See note above.

- Exacerbate conditions on a road or an intersection that currently operates at an unacceptable level of service.

See note above.

- Add substantial (ten or more vehicle trips per day) to a road that does not currently meet the standards identified below:
 - Nonstandard road design according to County and State design standards;
 - Bridges less than 20 feet in width or those identified by the Federal or State government as being in need of structural repair;
 - Locations in which four or more reported accidents have occurred in a 12-month period during the past three years;
 - Pavement that has deteriorated to the degree that it may affect public health and safety; or

- Intersections in which limited curve radii cause a truck to access an on-coming lane while making a turning movement.

Impacts associated with design standard compliance for safety purposes are addressed by criterion “b” above.

- Add substantial (50 or more) loaded truck trips per day to a County-maintained roadway in which the pavement will deteriorate and require repair during the life of the permit.

Impacts associated with pavement condition for safety purposes are addressed by criterion “c” above.

- Disrupt or interfere with existing or planned transit operations and facilities of the Yolo County Transit Authority.

No change.

- Create hazards for pedestrians or bicyclists.

No change.

- Disrupt or interfere with existing or planned bicycle facilities as identified in the County of Yolo Bikeway Plan.

No change.

- Disrupt or interfere with existing or planned school bus operations of the Woodland Joint Unified and Esparto Unified School Districts.

No change.

Impacts Identified in the 1996 EIR

The impacts and mitigation measures adopted in the certified 1996 EIR are summarized in Table 4.8-2. The table provides a discussion of the status of each mitigation measure.

Table 4.8-2: 1996 EIR Impact Statements, Mitigation Measures and Discussion

Impact No.	Impact Statement from 1996 EIR	Mitigation Measures/Discussion
4.8-1	The proposed project would result in additional truck traffic on the nonstandard segment of SR 16 between I-505 and the entrance to the Solano Concrete Plant. This is considered to be a significant impact.	<p>Mitigation Measure 4.8-1a/Condition of Approval No. 66^a requires:</p> <p>“By July 1, 1999, the operator shall construct a left-turn lane for eastbound movements on State Route 16 into the processing plant. The operator shall be responsible for 100 percent of the costs of the improvement. Encroachment Permits from Caltrans will be obtained prior to construction.”</p> <p>The left turn lane was completed in 1999. The mitigation measure has been met and the condition is implemented and fully discharged.</p>
4.8-2	The proposed project would exacerbate unacceptable operations at the SR 16/County Road 98/Main Street intersection in the City of Woodland. This is considered to be a significant impact.	<p>Mitigation Measure 4.8-2a/Condition of Approval No. 67^a requires:</p> <p>“The operator shall pay a fair share toward the construction of left-turn lanes on each approach, and the installation of a traffic signal, at the SR 16/County Road 98/Main Street intersection to maintain acceptable levels of service. Prior to the commencement of mining, the operator shall pay \$1,200 to the City of Woodland Public Works Department, to be used in the construction of turn lanes and a traffic signal at the intersection of State Route 16 and County Road 98. This amount has been determined to be the operator's fair share portion of the cost of improvements at the intersection and will fully mitigate the potential traffic impacts at this location.”</p> <p>The operator fulfilled this obligation with a payment to the City of Woodland in September 1997. This mitigation measure has been met and the condition is implemented and fully discharged.</p>

Source: *Baseline Environmental Consulting, 2021.*

Note:

^a County of Yolo, 2021. Conditions of Approval Mining Permit and Reclamation Plan No. ZF #95-093 CEMEX Mining and Reclamation Project. 2020 Ten-Year Permit Review. As modified through February 11, 2021.

Impacts and Mitigation Measures for the Proposed Project

The discussion below examines relevant substantial changes in the project, substantial changes in the circumstances under which the project will be undertaken, and/or new information of substantial importance, as defined by CEQA Guidelines Section 15162. As necessary, this document updates or expands upon impact discussions in the 1996 EIR to evaluate changes associated with the proposed project and describes whether new or revised mitigation is required.

Pursuant to Section 15162 of the CEQA Guidelines, a subsequent EIR is required where proposed changes in the project or changes in the circumstances of the project would require revisions of the previous EIR due to new significant environmental effects or a substantial

increase in the severity of previously identified effects. Additionally, a subsequent EIR is required where there is new information that identifies significant effects not previously discussed, significant effects examined in the prior EIR that will be substantially more severe than previously shown, or mitigation measures or alternatives that are now feasible after previously being found infeasible, or are considerably different from those previously analyzed, that would substantially reduce significant effects but the applicant declines to adopt. Each impact is analyzed to determine whether any of the requirements for a subsequent EIR are met and, if so, additional environmental analysis is provided to evaluate the impacts, mitigation measures, and alternatives, as appropriate.

Impact 4.8-1: Cause an increase in baseline total VMT. The impact would be *significant*.

Under existing conditions, VMT at the CEMEX site is estimated to be 2,395,346 vehicle-miles per year (see Table 4.8-3). This estimate is based on a ten-year (2012-2021) annual average of 735,448 tons sold at the project site.

Table 4.8-3: Annual VMT at CEMEX Plant

Metric	10-Year (2012-2021) Production Rate	Permitted
Annual Sales	735,448 tons	1,000,000
Employee Avg. Trip Length (Round Trip)	89.5	89.5
Truck Avg. Trip Length (Round Trip)	62.4	62.4
Employee Annual VMT	428,439	428,439
Truck Annual VMT ^a	1,966,907	2,674,434
Total Annual VMT	2,395,346	3,102,873

Source: Fehr & Peers, 2022.

Note:

^a Truck Annual VMT includes both aggregate production tons sold and an estimate of recyclable material truck trips (independent of aggregate trips), which are assumed to increase or decrease commensurate with annual aggregate production rate.

The project will not result in an increase in the permitted annual capacity attributable to CEMEX, and thus may result in the same average VMT as has occurred under existing conditions. However, it is also feasible that CEMEX will maximize its production in any given year, which would result in a greater VMT as compared to existing average conditions. In order to fully analyze this potential impact and to advance CEQA’s policy of being more protective of the environment, this Draft SEIR conservatively measures VMT over the proposed 20-year extended permit period assuming CEMEX will maximize its production, even though historical data show actual volumes being lower.

At the maximum permitted level, total annual 3,102,873 VMT as compared to 2,395,346 reflective of average conditions over the last ten years, and this higher level is assumed to occur during the requested 20-year extended permit period. This potential increase of 707,527 annual VMT is attributable to the increase in aggregate truck trips that would occur if production were maximized, as well as an assumed commensurate increase in independent recyclable material truck trips.

It is possible that VMT could be higher or lower after 2027 *without* the project. Market demand for mining would not be directly affected if the proposed project did not proceed, but, without the

project, local supply could be reduced. However, other producers along Cache Creek have available capacity and may successfully supply unmet demand though it is likely that regional VMT would be greater without permit approval as trip lengths for gravel deliveries increase. On this topic, the CCAP Update DEIR states that “[minimization] of aggregate truck trips is a fundamental consideration in implementation of the CCAP. By ensuring a local source of aggregate, Yolo has maximized the opportunity to reduce mining truck traffic in the County... In support of state policy, and the recommendations of the OPR Technical Advisory, the CCAP ensures a local source of aggregate for local construction projects that would otherwise be transported from greater distances, and thereby reduces the distance trucks must travel to deliver product to regional sites... Overall the CCAP provides a ‘travel efficient’ program for aggregate resources serving the region while recognizing that unlike most urban land uses which fundamentally can be located anywhere, resource-based land uses are limited to locations where the resource exists.”

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

As presented above, there is new information related to regulation and management of VMT that was not previously known at the time of the 1996 EIR that will result in a new significant impact. Specifically, the proposed project could result in VMT greater than the baseline (ten-year average) VMT by 707,527 per year.

Mitigation Measure 4.8-1

Implement Mitigation Measure 4.2-5.

Significance After Mitigation:

Notwithstanding implementation of this measure, the project could result in a net increase in VMT, and therefore this impact is considered significant and unavoidable.

Mitigation measures that would reduce VMT must result in one of two outcomes – a decrease in average trip length or a decrease in trip generation. The proposed project’s remote location, specialized land use type, and relatively small number of employees would limit the range and effectiveness of potential VMT mitigation options, particularly those that are commonly applicable in urban or suburban settings (e.g., co-locating complementary land uses, providing subsidized transit passes, improving pedestrian/bicycle networks, managing parking supply, establishing ride sharing, or other mechanisms to reduce employee commute, etc.). However, one of the primary concerns associated with increased VMT is the resulting increase in GHG emissions. Mitigation Measure 4.2-5 is intended to mitigate for the increase in GHG emissions associated with the

project. Nonetheless, other impacts associated with increased VMTs could not be feasibly mitigated, meaning that this impact is considered significant and unavoidable.

Impact 4.8-2: Cause an inconsistency with applicable design standards. The impact would be *less than significant*.

While the project would increase the permit length by 20 years, the project is not proposing modifications to the existing transportation network. Consistent with Mining Ordinance sections 10-4.408 and 10-4.409, the operator (CEMEX) will be required to continue to pay its fair share toward road improvements required to maintain a structural capacity (traffic index) sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area and continue to assume joint pavement maintenance responsibility with the County (or shared with another producer using the same roadway) for all County roads along a designated haul route from the access point of the surface mining operation to an appropriate State Highway. Therefore, the project changes would not cause an inconsistency with applicable design standards.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.8-3: Cause a substantial decrease in safety. The impact would be *less than significant*.

The CEMEX site has direct access to SR 16 from a private road and no other haul routes are used by the project site to access the SHS. Caltrans is the owner and operator of the transportation network used by the CEMEX site (i.e., SR 16, I-505, and I-5), and the proposed project would continue to use its assigned haul route on the SHS. Regarding the SHS, Caltrans is the responsible agency for pavement management and safety. Caltrans monitors pavement performance and estimates future condition of all pavements in the State highway system. It also assists districts with planning, prioritizing, and programming pavement projects in SHOPP and

Highway Maintenance programs. Additionally, Caltrans has standardized traffic safety investigations to address safety concerns.

While the current pavement in the SR 16 corridor is rated as fair or good, Caltrans has anticipated future pavement improvements. According to the *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (2020 MTP/SCS)* (SACOG, 2019), existing pavement on a portion of the highway will be rehabilitated within the 20-year planning horizon of the plan.

- SR 16 Pavement Rehabilitation C – In Yolo County on SR 16 from CR 98 to I-5 Junction (PM R40.5/R43.42; SHOPP ID 20445)

The project is not proposing modifications to the existing transportation network, alter the approved haul route, change the vehicle mix, or contribute traffic above currently permitted levels. Pavement condition and safety issues on SR 16 would continue to be monitored and addressed by Caltrans, with or without approval of the proposed project. Therefore, the potential incremental effect of the proposed project during the 20-year permit extension would be addressed through current processes.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure(s)

None required.

Impact 4.8-4: Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating transportation impacts. This impact would be *significant*.

Table 4.8-4 below provides an analysis of the proposed project's consistency with applicable policies and regulations that have been adopted for the purpose of avoiding or mitigating environmental effects related to transportation and circulation.

In general, the project proposes to continue mining and reclamation activities, plant operation, and post-reclamation activities as described and evaluated in the 1996 EIR for an additional 20 years. The 1996 EIR calculated levels of service for the roadways in the project area under pre-project existing conditions and with the proposed project. The 1996 EIR concluded that operations on SR 16 would continue to be LOS C and all County roads would continue to operate at LOS A with the project.

A traffic operations analysis was conducted to support the evaluation of the proposed project's effect on local traffic conditions and consistency with County policies regarding LOS.⁶ The following intersections were evaluated (these are the same locations analyzed for the project's 1996 EIR):

1. SR 16/I-505 Southbound Ramps
2. SR 16/I-505 Northbound Ramps
3. SR 16/CEMEX Driveway
4. SR 16/County Road 96
5. County Road 98/SR 16/W. Main Street
6. County Road 98/County Road 20/W. Kentucky Avenue

Based on the results of a traffic operations analysis, each intersection operates at LOS C or better during the AM and PM peak hours, except for SR 16/County Road 96 (CR 96). The minor street (CR 96) approach to the intersection operates at LOS F (during the busy months). This indicates that drivers in busy months are waiting over 50 seconds before accessing SR 16.

The following LOS discussion is provided to address Policy CI-3.1 of the County General Plan related to LOS. Appendix K provides a Traffic Operations Memorandum prepared for the proposed project. The analysis demonstrates that the intersection of SR 16 and CR 96 has an existing LOS deficiency that cannot be reasonably or feasibly resolved by the proposed project because the required reduction in trips to achieve the target LOS would likely exceed the proposed project's entire trip contribution during AM and PM peak hours. In other words, restricting all trip generation from the CEMEX site during the AM and PM peak hours would not produce acceptable peak hour operations at the subject intersection. SR 16 is a State facility and there are no planned capacity improvements for that facility. All other intersections potentially affected by project traffic are operating at acceptable LOS and project trip contributions will not adversely affect operations.

General Plan Policy CI-3.1(X) allows exceptions to the target LOS identified for various roadway segments based on a case-by-case determination by the Board of Supervisors as noted below:

- X. Additional exceptions to this policy may be allowed by the Board of Supervisors on a case-by-case basis, where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following:
 1. Preserving agriculture or open space land;
 2. Enhancing the agricultural economy;

⁶ Fehr and Peers, 2022. CEMEX SEIR – Traffic Operations Memorandum, July 18. (Appendix K)

3. Preserving scenic roadways/highways;
4. Preserving the rural character of the county;
5. Avoiding adverse impacts to alternative transportation modes;
6. Avoiding growth inducement;
7. Preserving downtown community environments; or
8. Where right-of-way constraints would make the improvements infeasible.

Where exceptions are applicable, there would, by definition, be no significant impact. The CCAP ensures a local source of aggregate for local needs that would otherwise be transported from greater distances and thereby reduces the distance trucks must travel to meet local and regional needs. In this respect, implementation of the CCAP is beneficial to regional VMT. In addition, exceptions 1, 2, 3-6, and 8 are all applicable to the subject circumstances. Mining is an allowed use in the Agriculture land use designation and zone district, mining is a documented beneficial contributor to the economy, implementation of the CCAP precludes other adverse impacts from occurring by ensuring a local source of aggregate, the project is not growth inducing, and there is no reserved right-of-way for any planned capital improvements for this segment of SR 16.

Conclusion

There are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR is required related to this area of impact.

As presented above, there are changes in the circumstances under which the project would be undertaken that could result in new significant impacts or substantial increase in the severity of previously identified significant impacts due to changes in General Plan policy related to acceptable LOS at various intersections, and therefore revisions to the analysis in the 1996 EIR are required related to this area of impact. Implementation of Mitigation Measure 4.8-4 would reduce the impact to a less-than-significant level

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

Mitigation Measure 4.8-4

The Board shall make the following findings to ensure consistency with the General Plan and CCAP, if this project is approved: The Board hereby finds that acceptance of a reduced Level of Service under existing and future conditions at the intersection of SR 16 and CR 96 is appropriate pursuant to Policy CI-3.1(X) of the General Plan which allows for such exceptions in recognition of the benefits of preserving agriculture or open space land; enhancing the agricultural economy; preserving the rural character of the county; avoiding adverse impacts to alternative transportation modes; avoiding growth inducement; and where right-of-way constraints would make the improvements infeasible.

Significance After Mitigation:

With implementation of mitigation measure identified above, the impact is considered less-than-significant.

Table 4.8-4: Consistency with Applicable Policies and Regulations

Policy/Regulation	Consistency Discussion
Yolo County General Plan	
<p>Policy CI-3.1 Maintain Level of Service (LOS) C or better for roadways and intersections in the unincorporated county. In no case shall land use be approved that would either result in worse than LOS C conditions, or require additional improvements to maintain the required level of service, except as specified below. The intent of this policy is to consider level of service as a limit on the capacity of the County's roadways. (Only those segments relative the project site are shown)</p> <p>E. State Route 16 (County Road 78 to County Road 85B) – LOS D is acceptable.</p> <p>F. State Route 16 (County Road 85B to County Road 21A) – LOS E is acceptable.</p> <p>G. State Route 16 (County Road 21A to Interstate 505) – LOS D is acceptable, assuming that this segment is widened to four lanes with intersection improvements appropriate for an arterial roadway. The County will secure a fair share towards these improvements from planned development. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to provide funding for the project.</p> <p>H. State Route 16 (Interstate 505 to County Road 98) – LOS D is acceptable, assuming that passing lanes and appropriate intersection improvements are constructed. The County will secure a fair share towards these improvements from all feasible sources. Caltrans and the Rumsey Band of Wintun Indians shall be encouraged to establish a funding mechanism to pay the remainder.</p> <p>X. Additional exceptions to this policy may be allowed by the Board of Supervisors on a case-by-case basis, where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following:</p> <ol style="list-style-type: none"> 1. Preserving agriculture or open space land; 2. Enhancing the agricultural economy; 	<p>As demonstrated in project Traffic Operations Memorandum (Appendix K), the proposed project would be consistent with the County's LOS standards for all but one of the study intersections. As noted above, the proposed project could conflict with the County's LOS standards at the following intersection:</p> <ul style="list-style-type: none"> • SR 16/County Road 96 <p>Policy CI-3.1(X) allows exceptions to the target LOS identified for various roadway segments based on a case-by-case determination by the Board of Supervisors, and several of the exceptions are applicable to the project. Implementation of Mitigation Measure 4.8-4 would ensure that the Board makes findings that the exceptions apply to ensure consistency with the General Plan and CCAP, if this project is approved. Therefore, the project would be consistent with this policy.</p>

<ol style="list-style-type: none"> 3. Preserving scenic roadways/highways; 4. Preserving the rural character of the county; 5. Avoiding adverse impacts to alternative transportation modes; 6. Avoiding growth inducement; or 7. Preserving downtown community environments. 8. Where right-of-way constraints would make the improvements infeasible. 	
<p>Policy CI-3.4 Define level of service consistent with the latest edition of the Highway Capacity Manual and calculate using the methodologies contained in that manual. At a minimum, weekday AM and PM peak hour traffic volumes will be used in determining compliance with the level of service standard. For recreational and other non-typical peak hour uses, weekday afternoon, weekday late evening, or weekends shall be considered.</p>	<p>LOS at the study roadway facilities has been evaluated consistent with the HCM 6th edition (see Appendix K). Standard peak hour periods of 7:00 AM to 9:00 AM and 5:00 PM to 6:00 PM were determined to be appropriate for the proposed project. Therefore, the proposed project is consistent with this policy.</p>
<p>Policy CI-3.7</p> <ul style="list-style-type: none"> • Consider designs for planned roadway capacity improvements that recognize the unique conditions associated with rural and agricultural areas in accordance with established standards including, but not limited to, the following: American Association of State Highway and Transportation Officials (AASHTO) publication “A Policy on Geometric Design of Highways and Streets;” • Caltrans’ Main Streets: Flexibility in Design and Operations; • Federal Highway Administration’s Flexibility in Highway Design; • 2007 California Fire Code; and • Institute of Transportation Engineers’ Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities. 	<p>No new roadway improvements are proposed. Therefore, the proposed project is consistent with this policy.</p>
<p>Policy CI-3.9 To the greatest feasible extent, require new development to construct safety improvements consistent with current design standards on existing roadways that are anticipated to accommodate additional traffic from planned development.</p>	<p>The project is not proposing to modify the existing transportation network, alter the approved haul route, change the vehicle mix, or contribute traffic above currently permitted levels. No new safety improvements are warranted; therefore, the project is consistent with this policy.</p>
<p>Policy CI-3.11 Require new development to finance and construct all off-site circulation improvements necessary to mitigate a project’s transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts,</p>	<p>See discussion of Mining Ordinance Section 10-4.409 below.</p>

<p>and impacts to the State Highway System). For mitigation to be considered feasible, it must be consistent with the policies of the General Plan.</p>	
<p>Policy CI-3.12 Collect the fair share cost of all feasible transportation improvements necessary to reduce the severity of cumulative transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts).</p>	<p>See discussion of Mining Ordinance Section 10-4.409 below.</p>
<p>Policy CI-3.13 Ensure that transportation and circulation improvements (including improvements to comply with County design standards) are constructed and operational prior to or concurrent with the need, to the extent feasible.</p>	<p>No modifications to the existing transportation network are anticipated at this time. Should modifications be undertaken in the future, CEMEX would comply with County design standard requirements. Therefore, the proposed project would be consistent with this policy.</p>
<p>Policy CI-3.16 Ensure that funding for the long-term maintenance of affected roads is provided by planned development.</p>	<p>See discussion of Mining Ordinance Section 10-4.409 below.</p>
<p>Policy CI-3.18 Ensure adequate access for emergency vehicles.</p>	<p>Existing routes are adequate for emergency access to the project site. The proposed project would not modify access routes. Thus, the proposed project would be consistent with this policy.</p>
<p>Off-Channel Mining Plan</p>	
<p>Action 2.4-21 Ensure that each mining operation adheres to approved haul routes and approved ingress/egress locations. Ensure through conditions of approval and other appropriate mechanisms that mining operations are funding their fair share of roadway and related impacts, including both one-time improvements and ongoing operations and maintenance, along approved haul routes and in proximity to approved operation ingress/egress locations.</p>	<p>Aggregate trucks going to and from the CEMEX operation currently access the plant from its entrance on SR 16. Trucks are required to use designated haul routes of State Route 16 to and from Interstates 5 and 505. Local deliveries are allowed to use roads other than State Route 16. The project does not propose changes to the designated haul routes. With regards to funding, see Mining Ordinance Sections 10-4.408 and 10-4.409 below. The proposed project would comply with this action.</p>
<p>Off-Channel Surface Mining Ordinance</p>	
<p>Section 10-4.402 The first one-hundred (100) feet of access road intersecting a County-maintained road shall be surfaced in a manner approved by the Public Works Department, with an approach constructed to County standards. Traffic control and warning signs shall be installed as required by the Public Works Department.</p>	<p>The proposed project would use the existing driveway access road that connects directly to SR 16 (not a County Road). Thus, the proposed project would be consistent with this ordinance.</p>
<p>Section 10-4.408 It is the intent of this program that each operator shall pay for any road improvements determined to be necessary to support their operation consistent with County and CCAP standards, and for ongoing operations and maintenance. Each operator shall pay its fair share toward improvements required to maintain a structural capacity (traffic index)</p>	<p>See discussion of Mining Ordinance Section 10-4.409 below</p>

<p>sufficient for the project traffic and to maintain operations on County roads and on State Highways within the OCMP planning area consistent with applicable General Plan policies related to LOS and applicable State policy related to VMT. Fair share mitigation shall also be required to improve existing operational as well as structural deficiencies of the transportation system. Specific locations shall be identified through the project-specific environmental review process for each operator's long-term mining permit application. Each operator shall participate in a funding program operated by the County which is designed to ensure that all improvements are made in a timely manner and that a reimbursement mechanism is in place to ensure repayment of any costs contributed in excess of fair share amounts.</p> <p>The program shall be initiated upon the approval of the long-term mining permits and shall be updated biennially by the County to ensure any new or modified impacts or funding sources are being addressed.</p> <p>Each operator shall have the option to complete the work at their expense without triggering the competitive bid process, as long as they comply with the applicable legal requirements of the County. If the operator declines the option, the County shall utilize the competitive bid process.</p>	
<p>Section 10-4.409 The operator shall agree to assume joint pavement maintenance responsibility with the County (or shared with another producer using the same roadway) for all County roads along a designated haul route from the access point of the surface mining operation to an appropriate State Highway. The County will provide maintenance of the county-maintained roadside drainage ditches, traffic signs, and striping. By May 15 of each year, the operator shall submit to the County an annual evaluation report documenting the structural integrity of the pavement structural section and the PCI of the roads maintained by the operator. The annual report shall be signed and sealed by a civil engineer licensed in the State of California. The report shall contain a proposed action plan for pavement maintenance and pavement improvements to maintain safe and efficient traffic operation on the roads, and a PCI of 70 or more, unless otherwise agreed by the County, as defined by American Society for Testing and Materials (ASTM) Method D6433 (Standard Practice for Roads and Parking Lots Pavement Condition Index Survey), for each upcoming year. Within 30 days, the County will review the report and recommend revisions if necessary. Following acceptance of the report by the</p>	<p>As stated in the Safety section above, CEMEX connects directly from a private road to SR 16 and does not use any County roads in its operation. Therefore, this regulation is not applicable to the CEMEX operation.</p>

County, the operator shall secure a County encroachment permit specific to the action plan (at no cost to the operator) and complete the proposed pavement maintenance and improvement activities prior to the submittal of the annual report. Striping may be provided by the County if County striping equipment and material are available. Otherwise striping will be provided by the operator. Once the work is completed, the operator will resubmit the annual evaluation report by November 1 each year, and include the scope and dates that work was completed.

If minor emergency asphalt repairs (work requiring a single County Public Works maintenance pick-up truck with asphalt patching material) are identified within the maintenance areas of the hauling routes after the Applicant's yearly maintenance has been completed, county crews will perform the minor asphalt repair maintenance once in a sixty (60) consecutive day period. The types of asphalt pavement failures requiring repairs include, but are not limited to, cracking, pot holes, depressions, rutting, shoving, upheaval, and raveling and any other pavement damage or failures requiring immediate repair by the county.

If major emergency roadway repairs associated with the permitted activities (work requiring more than a single County Public Works maintenance pick-up truck with asphalt patching material, or minor asphalt repairs occurring in less than the sixty (60) consecutive day period) are identified after the Applicant's yearly maintenance has been completed, the Applicant shall obtain a County encroachment permit (at no cost to Applicant) and complete the major roadway repairs. If major roadway repairs that are the Applicant's fair share obligation are not completed by the Applicant in a timely manner as determined by the County, and the County must make repairs when the public's safety is considered at risk by the County Engineer, then the Applicant will be billed for the County's major roadway repair work on a time and materials basis. An applicant may coordinate with the County to have the County complete required improvements, and in such case, must fully fund the County's costs to do so. The operator does not assume the liability for the roadway, except for cases where the operator has not fulfilled its maintenance obligations.

If a subsequent mining operation utilizes a road previously required to be improved pursuant to this subsection, then the subsequent operator shall be responsible for compliance with the agreements and requirements of the previous operator.

4.9 TOPICS FOUND TO HAVE NO SIGNIFICANT IMPACTS

4.9.1 INTRODUCTION

The discussion below explains why further analysis in this Draft SEIR is not required to evaluate potential impacts related to the proposed project for the following topics determined to have no impact or a less-than-significant impact with continued implementation of required Conditions of Approval (COAs) and mitigation measures.

Resource Topics With No Impacts

As noted in the 1996 EIR and Initial Study, the following resource topics: Population and Housing; Public Services and Recreation; and Utilities and Service Systems, would not be impacted by the approved project. Furthermore, per the following discussion, there would also be a finding of no impact for implementation of the proposed project. For the following topics, the regulatory framework, assessment methods, determination of impacts, and associated mitigation measures remain as described in the Solano Long-Term Off-Channel Mining Permit Application Environmental Impact Report (1996 EIR) and the Cache Creek Area Plan (CCAP) Update FEIR.

Population and Housing

The project proposes to modify and extend an approved project. The project proposes no increase in the approximately 15 mining and processing employees currently working at the site, and the project would not directly or indirectly induce population growth in the area. The project also would not displace housing or substantial numbers of people, and therefore, similar to the conclusions reached in the 1996 EIR, no impact associated with population or housing would occur.

Public Services and Recreation

The proposed changes to CEMEX's surface mining and reclamation plans at the project site would not have an effect on public services and would not require the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. The Madison Fire Protection District (District) provided NOP comments dated February 26, 2021 (see Appendix B). The District raised the following points (responses are noted in *italics*).

- There could be potential impacts regarding emergency access and fire road access for fires, accidents and medical emergencies. The Fire Protection District would like a copy of the emergency plan submitted to the County.

The Cache Creek Ready Mix Plant Cache Creek Aggregate Emergency Action/Fire Prevention Plan¹ was provided to the Fire Protection District on July 13, 2021. The project is an extension and modification of an approved project that will continue to be mined in phases, no revisions to the Emergency Plan are necessary or required. Additionally,

¹ CEMEX Construction Materials Pacific, LLC, 2021. Cache Creek Ready Mix Plant Cache Creek Aggregate Emergency Action/Fire Prevention Plan. July.

access points for emergency services are also well-established and no changes to emergency access provisions are proposed as part of the project.

- Will there be an increase in employees?

There will be no increase in employees as 15 employees are currently on the site, and no increase is proposed as part of the project.

- Would the expansion in mining need more buildings or relocation of buildings?

No expansions or relocations of buildings are proposed as part of the project.

Regarding fire and police services, access points and traffic patterns (including truck routes associated with the facility) are well established and no changes are proposed. Except for local deliveries, trucks leaving the CEMEX plant must either exit west onto State Route (SR 16) to Interstate 505 (I-505) (north or south) or east on SR 16 to Interstate 5 (I-5) (via SR 16 only). Trucks must stay on I-5 until they have left Yolo County, as there are no designated haul routes on County roads. There would be no impact associated with new or modified fire or police protection, services or facilities associated with an increase in truck trips.

As noted above, the project would not involve the creation of new housing and would not induce population growth in the area that would require new services. Existing utilities, including electrical, sanitary and water infrastructure, at the site are sufficient to meet the increase in mining operations and revisions to the reclamation plans.

Because, employment would not change, and no housing or population impacts would occur, the project would not increase demand for schools, parks, or other local public services/facilities. The project proposes to dedicate permanent lakes to the County, which will be used for future recreational and habitat uses, consistent with the CCAP and the Cache Creek Parkway Plan. This is consistent with the provision of “net gains” described in the existing Development Agreement.

Utilities and Service Systems

The project is an extension and modification of an approved project. CEMEX proposes no change to the following elements of the existing operation: mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, water use, power use, or hours of operation.

Pacific Gas and Electric Company (PG&E) provided NOP comments dated February 26, 2021, (see Appendix B) on the Notice of Preparation and raised the following points (responses are noted in *italics*).

- PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

No response required.

- PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

This Draft SEIR has been provided to PG&E for review and comment.

- Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851 filing is required.

No response required.

Regarding relevant standards of significance identified in the CEQA Guidelines Appendix G, the project meets wastewater treatment requirements, and the project site has existing sewage systems (e.g., septic system and portable toilets) that will continue to be utilized and may be supplemented with additional serviced portable toilets as needed in the mining areas. No additional employees are proposed as part of the project modifications. No new or additional wastewater is anticipated to be generated through implementation of the proposed project. Therefore, the project would have no impact on wastewater treatment capacity, wastewater treatment requirements, or wastewater facilities.

The project does not propose any large-scale storm water drainage facilities typical of municipal or regional utilities. The project includes continued installation/use of site-specific Best Management Practices (BMPs) and other requirements specified in the Mitigation Monitoring Reporting Program (MMRP), Conditions of Approval, and Off-Channel Mining Plan (OCMP), such as riprap run-downs and drainage ditches to control stormwater runoff and minimize the effects of erosion. These BMPs are themselves intended to prevent and reduce environmental impacts. Therefore, the project would have no impact in terms of the construction of new storm water drainage facilities or expansion of existing facilities.

The project would have sufficient water supply consisting of recycled aggregate process wash water and water sourced from existing on-site groundwater extraction wells, and storm water that collects in open water ponds. Water use at the site is primarily associated with construction materials processing and dust control. Water is/will also be used for irrigation purposes for restored habitats, but at a much lesser demand. Given that the project would have sufficient water supply (as established under existing entitlements), the project would have no impact related to water supply.

The project would not result in changes to existing solid waste generation quantities or collection procedures. Consistent with existing operations, mine waste will be limited to overburden (to be used on-site for reclamation) and general refuse (which will be disposed of in accordance with applicable standards). Any incidental refuse or garbage will continue to be collected, hauled off-site and disposed of in accordance with state and local standards. Therefore, the project would have no impact related to solid waste generation.

Resource Topics With Less-than-Significant Impacts

For the approved project, the 1996 EIR identified, evaluated, and mitigated significant impacts to a less-than-significant level for the following resource topics: Aesthetics; Hazards and Hazardous Materials; and Land Use and Planning. In the following discussion, the potential for there to be new or more severe impacts associated with the proposed project or changes in circumstances leading to new significant impacts is analyzed. Due to the 2018 update of the CEQA Guidelines, the topic of Wildfire has been included in this section. For the following topics, the regulatory framework, assessment methods, determination of impacts, and associated mitigation measures remain as described in the 1996 EIR, the CCAP Update EIR, and the CEMEX Conditions of Approval. The following discussions are also based, in part, on the information provided by the applicant in the 2018 Application² as revised.

Aesthetics and Visual Resources

The significance criteria related to aesthetics were revised as part of the Appendix G CEQA Guidelines update in 2018. While the wording of the criteria changed relative to the significance standards used in the 1996 EIR, all of the criteria considered in the 1996 EIR are substantively covered by the revised criteria. Additionally, the description of the regional and local landscape and environment, the locations (i.e., SR 16 and I-505) from which public views of the site and mining operations can be seen, and the way in which mining and reclamation activities would alter the visual environment have not substantially changed since described in the 1996 EIR.

In regards to the current existing setting, the proposed project site is not located within the vicinity of an officially designated or eligible State Scenic Highway, according to the California Scenic Highway Mapping System.³ Thus, the proposed project would result in a less-than-significant impact related to the potential for the proposed project to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

As noted in the 1996 EIR, travelers on I-505 would have continuous views of aggregate extraction and processing activities. Active mining operations are particularly visible at the point where I-505 gently rises and crosses Cache Creek. Since a greater number of persons travel on I-505, as compared to SR 16, and better visual access to the site is afforded from I-505 due to its elevation, the project would result in a more significant visual impact on views from I-505 than on views from SR 16. Impacts to views from roadways would be primarily from the creation of stockpiles of up to 40 feet in height during mining of the site. Stockpiles on the Phase 2 area (east of I-505) are especially prominent and any that would occur on the Phase 7 area (west of I-505) could also be seen (Figure 3-2). Stockpiles and mining activities in Phases 3, 4, 5 and 6 would be most prominent to viewers traveling along SR 16.

² Compass Land Group. 2018. Application for Extension of Modification of an Approved Project for CEMEX Cache Creek Mining Permit and Reclamation Plan Amendment Project. February.

³ California Department of Transportation. California Scenic Highway Mapping System. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed June 8, 2021.

Since 1996, 61 acres of the Phase 2 area have been mined and no further mining is permitted in the area. As part of the proposed project, the western half of Phase 2 (closest to I-505) is proposed to be reclaimed to agriculture within five years (approximately 2026). Per the project description, the eastern half of Phase 2 is proposed to be used as an extension of the plant site (located to the north of Phase 2) for purposes of stockpiling and would be reclaimed to agriculture at the end of the life of permit (as proposed in 2047). While the eastern portion of Phase 2 would remain in a disturbed condition with visible stockpiles for a longer period of time under the proposed project, the views of the stockpiles (which can be 40 feet high) would be similar to those evaluated in the 1996 EIR. Additionally, the planted windbreak along I-505 was included as part of the approved project and provides some visual screening (Figure 3-5). CEMEX also proposes to occasionally use a portable plant in the below grade area of Phase 2 to process stockpiled recycled construction materials process, which is an existing use.

To reduce significant effects to public views associated with the project, the 1996 EIR includes Mitigation Measure 4.10-1a (Condition of Approval No. 71) which requires implementation of Section 10-4.429 of the County Off-Channel Surface Mining Ordinance (Mining Ordinance) related to setbacks to reduce aesthetic impacts:

Section 10-4.429. Setbacks.

All off-channel surface mining operations shall comply with the following setbacks:

- (a) New processing plants and material stockpiles shall be located a minimum of one thousand (1,000) feet from public rights-of-way, public recreation areas, and/or off-site residences, unless alternate measures to reduce potential noise, dust, and aesthetic impacts are developed and implemented;
- (b) Soil stockpiles shall be located a minimum of five-hundred (500) feet from public rights-of-way, public recreation areas, and off-site residences, unless alternate measures to reduce potential dust and aesthetic impacts are developed and implemented;
- (c) Off-channel excavations shall maintain a minimum one-thousand (1,000) foot setback from public rights-of-way and adjacent property lines of off-site residences, unless a landscaped buffer is provided or site-specific characteristics reduce potential aesthetic impacts. Where landscaped buffers are proposed, the setback for off-channel excavations may be reduced to a minimum of fifty (50) feet from either the property line or the adjoining right-of-way, whichever is greater. Where mining occurs within one-thousand (1,000) feet of a public right-of-way, operators shall phase mining such that no more than fifty (50) acres of the area that lies within one-thousand (1,000) feet of the right-of-way would be actively disturbed at any time, except where operations are adequately screened from public view. Where adequate screening exists in the form of mature vegetation and/or constructed berms that effectively block public views, the area of

active disturbance within one-thousand (1,000) feet of the right-of-way shall not exceed the area that is screened by more than fifty (50) acres at any one time. Actively disturbed areas are defined as those on which mining operations of any kind, or the implementation of reclamation such as grading, seeding, or installation of plant material are taking place.

The 2020 Ten-Year Permit Review notes the following related to this Condition and Mitigation Measure:

...The project was approved to mine to within 200 feet of the channel bank subject to installation of bank stabilization consistent with the Test 3 improvements in effect at the time. Ongoing compliance with all applicable required setbacks in this section is required.

The approved and proposed project are and would be in compliance with the required buffers, and significant impacts associated with public reviews would be reduced to a less-than-significant level, similar to the 1996 EIR.

Compliance with other County ordinances would also assist in reducing aesthetic impacts, as follows.

Section 10-4.404 of the Mining Ordinance provides the following requirements related to aesthetics:

Section 10-4.404. Aesthetics.

The visibility of mining operations, facilities, and landform alterations from public areas, viewpoints, and nearby residences shall be minimized, based on an assessment of site specific visual characteristics and viewing conditions. The use of berms, vegetative screens, seeding, special plant materials and contouring the sides and top surfaces of modified landforms or other measures, shall be incorporated in the individual mine and reclamation plans as appropriate.

Section 10-4.420 of the Mining Ordinance provides the following requirements related to lighting:

Section 10-4.420. Lighting.

All lighting shall be arranged and controlled so as not to illuminate public rights-of-way or adjacent properties.

Section 10-5.502 of the Yolo County Surface Mining Reclamation Ordinance (Reclamation Ordinance) states the following regarding aesthetics:

Section 10-5.502. Aesthetics.

Means of improving the appearance of the landscape after mining has been completed shall be assessed based on site-specific visual characteristics, site

lines, and view corridors. The use and placement of berms, vegetative screens, special plant materials, grading slopes, and contouring the sides and top surfaces of modified landforms to mimic surrounding landforms, or other measures, shall be incorporated into the mine reclamation plan as appropriate.

Section 10-5.521 of the Reclamation Ordinance states the following regarding permanent stockpiles:

Section 10-5.521. Permanent Stockpiles.

There shall be no permanent piles of mine waste and/or overburden. Berms established for visual screening and noise abatement shall be contoured to conform visually with the surrounding topography.

The proposed project would extend mining for an additional 20-years, among other changes, the visual effects of the mining methods, equipment and activities, and timing for reclamation of those areas would be similar to those identified in the 1996 EIR. With implementation of Mitigation Measure 4.10-1a (Condition of Approval No. 71) and other County requirements, impacts to public views would be reduced to a less-than-significant level. Cumulative visual impacts in the Cache Creek area would continue to be unavoidable and adverse as documented in the 1996 EIR and the CCAP Update EIR.

Visual conditions and character, under both existing and proposed reclaimed conditions will not substantially change from what was evaluated in the 1996 EIR, the resulting long-term changes to public views and vistas would continue to be a less-than-significant impact.

Similarly, views of mining, reclamation, and post-reclamation activities for the proposed project would be substantially the same as for the approved project. Potential impacts related to visual incompatibility of mining and reclamation with surrounding land uses would also continue to be less than significant.

Additionally, the 1996 EIR found that any light and glare impacts that may be created from nighttime mining operations would be less than significant as a result of Off-Channel Surface Mining Ordinance Section 10-4.420. The 1996 EIR noted that highway projects and resurfacing are often conducted at night to avoid disruption to traffic. Since asphalt cools quickly, it must be delivered for use soon after it is mixed; therefore, hot asphalt plants are required to operate during the night. Night lighting of mining facilities and headlights of heavy equipment transporting materials to and from the plant could be seen by occupants of nearby residences and travelers using SR 16 and I-505. CEMEX currently conducts maintenance activities on conveyors and processing equipment five nights per week. CEMEX does not typically operate the crushing/screening plant at night, but early 4:00 a.m. starts for mining and processing equipment are common. Nighttime production is allowed under the CCAP and the existing CEMEX approvals and would be utilized as needed based on job specifications and customer demands. Customer trucks/bins occasionally get loaded as early as midnight.⁴ Similar to existing conditions, nighttime

⁴ Saber, Yasha, Project Manager, Compass Land Group. 2021. Personal Communication to Judith Malamut

operation is expected to be infrequent. Residences are located at least 1,500 feet from mining areas and haul roads; therefore, impacts from light and glare would continue to be less than significant with the proposed project.

Hazards and Hazardous Materials

The significance criteria related to hazards and hazardous materials were revised as part of the Appendix G CEQA Guidelines update in 2018. While the wording of the criteria changed relative to the significance standards used in the 1996 EIR, the criteria considered in the 1996 EIR are substantively covered by the revised criteria. The one criterion not addressed was the potential for impacts from a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and whether the project would result in a safety hazard or excessive noise for people residing or working in the project area. As the project site is not located within an airport land use plan or within two miles of an airport, and the mining employees would not be subject to a safety hazard associated with excessive noise, there would be no impact related to this criterion.

The project is an extension and modification of an approved project. CEMEX proposes no change to the following elements of the existing operation relative to hazards and the use of hazardous materials: mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, water use, power use, or hours of operation. Therefore, the focus of this analysis is limited to review of potential environmental impacts of the proposed increase in total extracted tonnage, mining over a longer period of time, and changes to CEMEX's surface mining and reclamation plans.

Given that the project would not increase the routine transport, use, or disposal of hazardous materials as compared to the permitted baseline operations, the project would not result in an increase in the associated potential to create a significant hazard to the public or the environment. Public health and safety precautions are currently in place at the project site in accordance with local, State and federal standards, and would continue to be implemented. In addition, Mine Safety and Health Administration (MSHA) and California Occupational Health and Safety (Cal-OSHA) rules, regulations and standards are presently employed to protect both the public and on-site employees and would continue to be employed under the proposed project. The CEMEX processing facilities, including the shop, are covered under a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) and Hazardous Materials Business Plan (HMBP) prepared and implemented pursuant to 40 CFR Part 112 and 19 CR Section 2729, respectively. As previously stated, no changes to any fundamental operations are proposed. As required, CEMEX will continue to implement these plans.

Further, the potential impacts associated with hazards and hazardous materials were fully analyzed in the 1996 EIR. To reduce significant effects related to hazardous materials, the 1996 EIR required implementation of the following conditions of approval/mitigation measures that remain applicable to the proposed project:

of Baseline Environmental Consulting via email. June 2, 2021.

COA #77 Implement the performance standard included in Section 10-4.415 of the OCSMO (Off-Channel Surface Mining Ordinance) relating to equipment maintenance and fueling restrictions (Mitigation Measure 4.12-1a).

The 2020 Ten-Year Permit Review notes that implementation of this condition is ongoing.

COA #78 Implement the performance standards included in Sections 10-4.406 (relating to benches) and 10-4.431 (relating to slopes) of the OCSMO (Off-Channel Surface Mining Ordinance); and Sections 10-5.510 (relating to fencing) and 10-5.530 (relating to slopes) of the SMRO (Surface Mining Reclamation Ordinance), altogether relating to hazard prevention. (Mitigation Measure 4.12-3a)

The 2020 Ten-Year Permit Review notes that:

... The operator must ensure compliance with the regulation going forward, and specifically address compliance in the annual compliance report.

COA #25 Pursuant to Action 2.4-2 of the Off-Channel Mining Plan, comply with Mining Ordinance Section 10-4.403 (Accident Reporting) related to reporting of accidents and/or hazardous conditions at the site, pursuant to Action 2.4-2 of the Off-Channel Mining Plan, and Section 10-4.419.1 (Hazardous Material Storage) related to annual submittal/update of a Hazardous Materials Business Plan (HMBP) and Spill Prevention Countermeasure Contingency Plan (SPCCP).

The 2020 Ten-Year Permit Review notes that CEMEX last submitted a HMBP on January 1, 2020. Update of that plan and submittal of a SPCCC will be required in 2021 and annually thereafter. CEMEX's most recent HMBP update was submitted via the CERS online portal and accepted by the County on May 31, 2022.

Given that the project would not significantly increase the routine transport, use, or disposal of hazardous materials as compared to the permitted baseline, and with continued adherence to the cited mitigation measures, conditions of approval, and performance standards in the County codes and ordinances, the project would have a less-than-significant impact related to the routine transport, use, or disposal of hazardous materials.

The project's operations would not be located within one-quarter mile of an existing or proposed school; therefore, no impact related to hazard risks to schools is anticipated.

The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, no impact related to a listed site is anticipated.

At its closest point (the east end of Phase 6), the project is located approximately 2 miles from the Yolo Fliers Club air strip. However, the project proposes no substantial changes to existing

operations that would result in a safety hazard for people residing or working in the project area; therefore, no impact related to proximity to that private use air strip is anticipated.

The project would not modify the existing access roadways or public rights-of-way (e.g., SR 16), and established truck traffic patterns would not significantly change. Access points and traffic patterns associated with the facility are well established and no changes to these fundamental aspects of the operation are proposed. In addition, CEMEX maintains health and safety plans on-site that would not be affected by implementation of the proposed project. Accordingly, the project would not interfere with any adopted emergency response plan or emergency evacuation plan; therefore, no impact associated with changes to these plans is anticipated.

The project site is highly disturbed as a result of continuous mining and agricultural activity. With the exception of the areas located between the northern boundaries of the proposed mining phases and Cache Creek, the majority of the proposed surface mining disturbance footprint is very sparsely vegetated, with the exception of agricultural row crops. The proposed project does not propose any substantial changes that would increase the potential for people or structures to be exposed to risks involving wildland fires. Therefore, no impact associated with an increased risk from wildfire is anticipated.

Land Use and Planning

The proposed project is an extension and modification of an approved project. CEMEX proposes no change to fundamental elements of the existing operation (e.g., mining methods, maximum depth of mining, processing operations, use of settling ponds to contain and settle aggregate wash fines, water use, power use, truck traffic, or hours of operation). The focus of this analysis is therefore limited to review of potential environmental impacts of mining an additional 20 years, mining more total tonnage, and the proposed changes to CEMEX's surface mining and reclamation plans at the project site.

The significance standards related to land use were revised as part of the Appendix G CEQA Guidelines update in 2018. While the wording of the standards changed relative to the significance standards used in the 1996 EIR, all of the standards considered in the 1996 EIR are substantively covered by the revised criteria.

The extension of mining for an additional 20 years and an increase in the total amount of mined material within the approved boundaries of the project site would not result in the physical division of an established community, and there would be no impact associated with incompatibilities with existing land uses or planned growth.

The project site's existing General Plan land use designation is Agricultural and Open Space, and the site is zoned Agriculture Intensive (A-N) with a Sand and Gravel overlay. The General Plan designation of Agriculture supports surface mining (per General Plan Policy LU-1.1, page LU-14) and all areas proposed for mining have this designation. The portions of the site that carry the Open Space designation apply to the in-channel portions of the parcels associated with Cache Creek. The General Plan supports the proposed continuation of mining through the following policies:

- 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.

Surface mining is allowed in the A-N zone with approval of a Major Use Permit for lands that are in the OCMP area on lands within the mineral resources overlay zone (Yolo County Code, Title 8, §8-2.304 and §8-2.306(t)). The project site is within this area, designated with a sand and gravel (“SG”) overlay, and is already operating under a mining and reclamation permit which is a type of major use permit.

The project’s consistency with other applicable land use plans, policies and regulations is detailed throughout this Draft SEIR.

Further, the potential land use impacts of the approved project were fully analyzed in the 1996 EIR. The 1996 EIR analyzed and fully mitigated for land use impacts by requiring implementation of the following mitigation measure, adopted as a condition of approval that remains applicable to the proposed project:

- COA #29 Implement Mitigation Measures 4.4-3a, 4.4-4a, and 4.4-7a of the Final EIR for the proposed project (Mitigation Measure 4.2-1a).

The 2020 Ten-Year Permit Review notes the following related to this Condition and Mitigation Measure:

Project-level Mitigation Measures 4.4-3a and 4.4-4a were OCMP Mitigation Measures 4.4-2a and 4.4-3(a) which became the following regulations in the Mining Ordinance: 10-4.413 (Drainage), 10-4.417 (Groundwater Monitoring Programs), 10-4.427 (Protection of Nearby Drinking Water Wells), 10-4.428 (Sanitary Facilities), and 10-4.429 (Setbacks); and the following regulations in the Reclamation Ordinance: 10-5.510 (Fencing), 10-5.517 (Mercury Bioaccumulation in Fish), 10-5.519 (Motorized Watercraft Prohibition), 10-5.524 (Post-Reclamation Groundwater Monitoring), and 10-5.532 (Use of Overburden and Fine Sediments in Reclamation). Project-level Mitigation Measure 4.4-7a became 10-5.516 (Lowered Elevations for Reclaimed Agricultural Fields).

The operator must ensure compliance with the regulations going forward, and specifically address compliance in the annual compliance report.

Potential impacts to drainage, water quality, groundwater monitoring, and protection of drinking water wells are also discussed in Section 4.6, Hydrology and Water Quality in this Draft SEIR.

Given that the project does not propose any significant land use changes, and with continued adherence to the cited mitigation measures, conditions of approval, and performance standards in County ordinances, the project would have no impact in terms of conflicting with any applicable

land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact.

Wildfire

The topic of wildfire was included in CEQA Appendix G as part of the 2018 CEQA update. A potentially significant impact could occur if the proposed project is located in or near a State Responsibility Area or in or near lands classified as very high fire hazard severity zones. According to a review of the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program maps,⁵ the project site is not located within a State Responsibility Area or in or near a high or very high fire hazard severity zone. Therefore, the proposed project would have a less-than-significant impact related to wildland fires.

4.9.2 CONCLUSIONS

For resource topics with no impacts and/or less-than-significant impacts, based on the assessment provided above and continued implementation of COAs and mitigation measures from prior approvals, there are no proposed changes in the project that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There are no changes in the circumstances under which the project would be undertaken that would result in new significant impacts or substantial increase in the severity of previously identified significant impacts, and therefore no revisions to the analysis in the 1996 EIR are required related to this area of impact.

There is no new important information relevant to this area of impact that was not previously known at the time of the 1996 EIR. There are no related new significant impacts, more substantial increase in the severity of previously identified significant impacts, previously dismissed mitigation that is now feasible, previously dismissed alternatives that are now feasible, or different more effective alternatives that have emerged or become known.

⁵ California Department of Forestry and Fire Protection. Yolo County, Fire Hazard Severity Zones in State Responsibility Areas. November 7, 2007. <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps>

5 CUMULATIVE IMPACTS AND OTHER REQUIRED SECTIONS

5.1 INTRODUCTION

The Cumulative Impacts and Other Required Sections chapter of the Draft SEIR includes discussions regarding those topics that are required pursuant to CEQA Guidelines Section 15126. This chapter includes a discussion of the proposed project's potential to induce growth. In addition, this chapter includes lists of significant irreversible environmental changes, and cumulative impacts caused by the proposed project.

As noted in Chapter 3, Project Description, the project site is located within the boundaries of the Cache Creek Area Plan (CCAP) adopted by the Board of Supervisors in 1996 and most recently updated in December 2019. The CCAP incorporates the Off-Channel Mining Plan (OCMP) and Cache Creek Resources Management Plan (CCRMP). The CCAP program documents are adopted components of the County General Plan and are implemented primarily through the County's Mining Ordinance, Reclamation Ordinance, and In-Channel Maintenance Mining Ordinance. Continued implementation of the CCAP, in combination with buildout of the County's General Plan, was evaluated in the CCAP Update FEIR.

The CCAP Update FEIR is a comprehensive program EIR, as defined per CEQA Guidelines Section 15168. The CCAP Update FEIR was intended to facilitate environmental review of subsequent in-channel and off-channel projects occurring within the CCAP area, consistent with CCAP policies and regulations, and within the updated CCAP planning horizon year of 2068. The CCAP Update FEIR analyzed all topics required under CEQA. Land use and planning, population and housing, public services, recreation, and utilities and services systems were identified in the initial study as having no significant effect resulting from the project. All identified mitigation measures were incorporated into the updated CCAP plans and regulations which are applicable to the proposed CEMEX project, as noted in each section of this Draft SEIR. Additionally, the approved mining activities at the CEMEX project site were identified and considered in the CCAP Update FEIR.

The proposal would amend the approved mining and reclamation permits to: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans verses on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request. A complete description of the project is contained in Chapter 3.0, Project Description.

The analysis in this chapter considers the program-level analysis of potential growth inducement, significant irreversible environmental changes, and cumulative impacts contained in the CCAP Update EIR.

5.2 GROWTH-INDUCING IMPACTS

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.

The CEQA Guidelines are clear that while an analysis of growth-inducing effects is required, it should not be assumed that induced growth is necessarily significant or adverse. Growth-inducing impacts associated with the proposed project would be considered to be any effects of the project allowing for additional growth or increases in population beyond that proposed by the project or anticipated in the project area. The proposed project would not create housing which would directly affect growth-inducing factors and the project would not remove obstacles to growth within the area.

The proposed project would allow for the continuation of approved mining on approximately 586 acres of the 1,902-acre project site thus ensuring continued availability of aggregate resources from local sources. Furthermore, the proposed project would maintain similar levels of employment as is on the site currently, for approximately 15 employees. There would be no new jobs created by the proposed project, as maximum production levels would not be increased. Continued employment of approximately 15 people would not be growth inducing as those individuals are already residing and working in the area.

The CCAP Update FEIR included an analysis of growth-inducing impacts, including the potential for the CCAP to foster population growth, eliminate obstacles to population growth, foster economic growth, and affect service levels, facility capacity, or infrastructure demand. The CCAP Update FEIR determined that the potential for environmental impacts to occur from increased employment, housing, and population growth would be less-than-significant. As demonstrated throughout the subject Draft SEIR, the proposed project would be generally consistent with the CCAP and would accommodate growth consistent with local general plans and land use decisions. The proposed project is not driving or creating the demand for aggregate material. Rather, the proposed project supports the existing demand for aggregate in the region. As such, the proposed project is market driven and would not result in growth-inducing impacts.

5.3 REQUIRED FINDINGS

Per Section 15065(a)(a)(2) and (4) of the CEQA Guidelines, a proposed project is considered to have a significant effect on the environment therefore requires preparation of an EIR if there is substantial evidence, in light of the whole record, if any of the following conditions may occur:

- The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals; or
- The environmental effects of a project will cause substantial adverse effects on human

beings, either directly or indirectly.

This Draft SEIR includes mitigation measures to reduce the severity of all identified environmental impacts to the maximum extent feasible. However, as summarized in Chapter 2 of this Draft SEIR, the proposed project would result in significant and unavoidable impacts related to project-level and cumulative impacts to agricultural resources and transportation (VMT).

Per Subsection Hazards and Hazardous Materials in Chapter 4.9, all impacts related to hazards, hazardous materials, would be reduced to less-than-significant levels. Per Chapter 4.2, Air Quality Greenhouse Gas Emissions and Energy, impacts related to exposure of receptors to substantial pollutant concentrations would be less than significant. Thus, the environmental effects of the proposed project would not have the potential to cause substantial adverse effects on human beings.

5.4 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that adversely affect the environment. “Cumulative impacts” are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines, Section 15355). “[I]ndividual effects may be changes resulting from a single project or a number of separate projects” (CEQA Guidelines, Section 15355, subd. [a]). “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. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines, Section 15355, subd. [b]).

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

- (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency’s control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;
- (2) A summary of the individual projects’ environmental effects, with specific reference to additional information and stating where such information is available; and
- (3) A reasonable analysis of all of the relevant projects’ cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project’s contribution to such effects (Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

The proposed project is a continuation of an approved project. Pursuant to CEQA Guidelines Section 15130(d), "[n]o further cumulative impacts analysis is required when a project is consistent with a general, specific, master, or comparable programmatic plan where the Lead Agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in section 15152(f), in a certified EIR for that plan." The proposed project is consistent with the Countywide General Plan and CCAP. The proposed project was contemplated within the cumulative analysis provided in the CCAP Update FEIR (Table 5-1, Row 11). Although further analysis is not needed pursuant to Section 15130(d), for purposes of complete disclosure, this Draft SEIR describes the potential cumulative impacts and relies on the CCAP Update EIR for the purpose of analyzing the potential cumulative impacts.

The CCAP Update FEIR analysis examined the cumulative effects of the CCAP Update, and General Plan build-out taking into account recent general plan amendments. As a result of this analysis, the CCAP Update FEIR identified numerous unavoidable cumulative impacts should all the cumulative projects be implemented within the planning area. Each of the cumulative impacts were considered and discussed in the topical sections of this Draft SEIR, where project-related impacts could be reduced through mitigation measures, they were identified and applied. The CEMEX project would contribute to cumulative conditions identified in the CCAP Update FEIR as summarized below:

Impact 5-1: Cumulative impacts to aesthetics. The project's incremental contribution to the cumulative impact would be *less than cumulatively considerable*.

As described in the CCAP Update FEIR, the OCMP and supporting Mining Ordinance include policies and ordinances that minimize potential adverse effects on views and vistas from new off-channel mining projects. Specifically, Sections 10-4.429, 10-4.430, and 10-4.502 would help limit direct, close-range visual exposure of mining facilities and operations. In addition, as disclosed in the CCAP Update FEIR, future areas of new mining identified by the OCMP would be subject to site-specific CEQA review. The OCMP and supporting Mining Ordinance include policies and ordinances that address and minimize adverse effects of night lighting by controlling spillover light and ensuring that night lighting does not extend to public areas or adjacent properties, and would keep new facilities a sufficient distance from potential sensitive receptors. In addition, Section 10-4.429(a) of the Mining Ordinance requires setbacks for mining and processing activities. Section 10-4.420 of the Mining Ordinance specifically addresses lighting by requiring that all lighting used in off-channel mining operations be arranged and controlled so as not to illuminate public rights-

Table 5-1: Summary of CCAP Mining Tonnages

Ref # ^[1] Site	Permit Approvals ^[2]					
	Annual Permitted		Annual 20% Exceedance ^[3]		Total Permitted ^[4]	
	Tons Sold	Tons Mined	Tons Sold	Tons Mined	Tons Sold ^[5]	Tons Mined ^[5]
1/CEMEX ^[6]	1,000,000	1,204,819	200,000	240,964	26.7	32.17
2/Granite Capay ^[7]	1,870,000	2,075,269	374,000	415,054	56.1	62.26
3/Granite Esparto ^[8]						
4/Granite Woodland ^[9]	Site reclaimed. Allocation of 420,000 tons mined (370,000 tons sold) annually transferred to Granite Esparto or Granite Capay site in 2011 ^[10]					
5/Syar	1,000,000	1,111,111	200,000	222,222	30.0	33.33
6/Teichert Esparto	1,000,000	1,176,471	None ^[11]	None ^[11]	22.0	25.88
7/Teichert Woodland	Allocation of 1,176,471 tons mined (1,000,000 tons sold) annually transferred to Teichert Schwarzgruber site upon cessation of mining. ^[12] Site undergoing reclamation.				15.2	17.88
8/Teichert Schwarzgruber	1,000,000 ^[13]	1,176,471 ^[13]	200,000 ^[13]	235,295 ^[13]	4.0 ^[13]	4.65 ^[13]
9/Original In-Channel Maintenance Extraction	180,000 ^[14]	200,000 ^[14]	N/A	N/A	9.9 ^[15]	11.0 ^[15]
Sub-Total Existing Conditions	6,050,000	6,944,141	974,000^[24]	1,113,535	163.9	187.2
10/Proposed Teichert Shifler ^[16]	2,000,000	2,352,942	200,000	235,295	35.25 ^[16]	41.6 ^[16]
11/SGRO (Existing + 2019 CCAP) ^[17]	1,000,000 ^[18]	1,100,000 ^[18]	200,000 ^[18]	220,000 ^[18]	114.7 ^[19]	124.4 ^[19]
12/Proposed In-Channel Maintenance Extraction	621,720 ^[20]	690,800 ^[20, 21]	N/A	N/A	12.53 ^[21]	13.92 ^[17, 21]
Sub-Total Assumed Future Conditions	1,441,720 ^[22]	1,590,800 ^[22]	200,000	220,000	162.5	179.9
Total	7,491,720^[22]	8,534,941^[22, 23]	1,144,000^[22]	1,333,535^[22]	326.4	367.1

Source: Yolo County, Cache Creek Area Plan Update, Final Environmental Impact Report, 2019, as corrected by footnote 24.

¹ Rows 1-9 reflect “existing conditions” as analyzed and/or approved. Actual existing conditions are lower – see County tonnage records. Rows 10-12 comprise assumed future conditions.

² Total allocated/approved by County under CCAP pursuant to approval of individual applications. See Development Agreements for project specific details unless otherwise footnoted.

³ In any given year, if exercised by Applicant. Must be approved by County pursuant to Section 10- 4.405.

⁴ This number is “as approved” – actual could be lower. This number will change as permits expire or are approved over time. Accurate as of table update date of Dec 19, 2018.

⁵ In million tons.

⁶ Previously Rinker, originally Solano.

⁷ Originally R.C. Collet aka Cache Creek Aggregates. Originally approved for 1,000,000 tons sold (1,075,269 tons mined) plus 20% exceedance of 200,000 tons sold (240,964 tons mined). Amended in 2011 as a part of the Granite Esparto approval to allow a combined total tonnage of 1,870,000 tons sold (2,075,269 tons mined) plus 20 percent exceedance of 374,000 tons sold (415,054 tons mined). Mining at Granite Esparto is precluded until mining at Granite Capay has ceased.

⁸ A 30-year permit was approved November 8, 2011 for mining on 313 acres at Granite Esparto site. Mining at the site

is precluded until mining at the Granite Capay site has ceased. Total tonnage allocation of 2,244,000 tons sold can be used at either site. The Granite Esparto application used all remaining Unallocated tonnage (505,859 tons mined; 500,000 tons sold) originally analyzed as part of cumulative conditions in the OCMP EIR.

⁹ Between 1997 and 2001.

¹⁰ This tonnage was identified in the OCMP but not the OCMP EIR.

¹¹ Not approved to utilize the 20 percent exceedance.

¹² Remaining 235,294 tons mined (200,000 tons sold) from Teichert Woodland approval relinquished.

¹³ A 15-year permit was approved Nov 13, 2012 on 40.7 acres Teichert Schwarzgruber site. Mining precluded until mining at Teichert Woodland has ended.

¹⁴ Not included in OCMP EIR and OCMP totals because authorization for this was provided through the Cache Creek Resource Management Plan (CCRMP) EIR and CCRMP.

¹⁵ Cumulative total tonnage for which CEQA clearance was provided in 1996 Program EIR, OCMP DEIR, pages 3- 22 and 3-23.

¹⁶ Application received September 26, 2018 for 30-year permit to mine on 277 acres of a 319-acre site. Understood to reflect transfer of both Schwarzgruber plus Teichert Esparto tonnage which would zero out the annual permitted for both those operations in the chart (no change to the bottom line totals for those two columns), but would be additive to the Total Permitted.

¹⁷ There are 1,001 acres countywide currently zoned Sand and Gravel Reserve Overlay (SGRO) for future mining. The 2019 update to the CCAP increased that area by 1,188 ac to a total of 2,189 acres. Currently mining is approved on 2,464 acres for a cumulative total of 187.2 million tons mined (see CCAP Update Figure 5, Past, Current, and Future Mining). The total SGRO land comprises 89 percent of the currently mined land. A conservative assumption for future mining is 89 percent of the currently approved total of 187.2 million tons mined, or 166 million new tons mined (149.4 mil tons sold).

¹⁸ Assumes one new operation of an average size of approximately 440 acres with 1,100,000 annual tons mined at each and 1,000,000 annual tons sold (assumes 10% average waste). All other acreage/tonnage assumed to be brought online over time as currently approved mining sites are mined out. In other words, "new" acreage/tonnage is assumed to replace "old" acreage/tonnage, not be "in addition to".

¹⁹ The 1,188 acres of new SGRO proposed in the CCAP Update includes the Shifler site. This number was developed several years prior to receipt of the Teichert Shifler application in 2018. The Teichert Shifler application is reflected separately in row 9. To avoid double counting of total tons mined, the Shifler tonnage has been backed out of the numbers in row 10. 166.0 mil tons mined – 41.6 mil tons mined = 124.4 mil tons mined. 150.0 mil tons sold – 35.3 mil tons sold = 114.7 mil tons sold.

²⁰ Reflects CCAP Update. In-Channel change from 210,000 (sometimes rounded to 200,000) to 690,800 tons mined (621,720 tons sold assuming 10% waste).

²¹ In-channel removal assumptions based on sediment transport modeling undertaken for 2017 Technical Studies: In about 10 of the 50 years 690,800 tons (690,800 x 10 = 6,908,000). In about three of the 50 years twice that amount or 1,381,600 tons (1,381,600 x 3 = 4,144,800). In the remaining 37 years 77,542 tons (77,542 x 37 = 2,869,054). Total in-channel removal over 50 years 6,908,000 + 4,144,800 + 2,869,054 = 13,921,854.

²² Column total minus Teichert Esparto, Teichert Schwarzgruber, and original in-channel acres.

²³ Includes 74,141 tons more than combined total of transferred Granite Woodland allocation (420,000 tons mined) plus Unallocated tonnage (505,859 tons mined) combined. The Unallocated tons mined number was a derived number – see 2009 version of this table in Granite Esparto DEIR (page 5-3).

²⁴ This sum was found to be incorrect following certification of the CCAP Update FEIR. The error related to corrections made to the Granite Esparto approved annual 20% exceedance amount of 174,000 tons sold in earlier versions of the table.

of-way or adjacent properties. However, given the subjective nature of visual impacts and the fact that the CCAP Update included an overall increase in acreage identified for future off-channel mining, cumulative impacts to aesthetics were determined to be cumulatively considerable, and significant and unavoidable, over the entire plan area and plan horizon.

The proposed project would extend mining at the CEMEX site for an additional 20 years, among other changes. The visual effects of the mining methods, equipment and activities, and timing for reclamation of the CEMEX site would be similar to those identified in the 1996 EIR and assumed in the CCAP Update FEIR. There would be no new aesthetics impacts because the proposed project is limited to the same overall project area as previously analyzed. The project would not change the visual character of the project site. The project proposes an increase in the total reclamation acreage of about 100 acres to incorporate area previously identified to be reclaimed

but not included in the approved total reclaimed area boundary. With implementation of 1996 EIR Mitigation Measure 4.10-1a (Condition of Approval No. 71) and other County requirements, impacts to public views would be reduced to a less-than-significant level.

The proposed project requests a 20-year extension of the mining and reclamation permits. Such an extension was anticipated in the CCAP as originally approved in 1996, and examined as well in the CCAP Update FEIR, which among other things, extended the horizon year for implementation of the CCAP from 2046, as previously approved, to 2064.

Implementation of 1996 Condition of Approval No. 71 and required compliance with the policies and regulations of the CCAP, would reduce visual impacts to public views of the CEMEX site to a less-than significant level. Although cumulative visual impacts in the Cache Creek area were identified as cumulatively considerable and significant and unavoidable in the 1996 EIR and the CCAP Update FEIR, the proposed project would not worsen that effect. This Draft SEIR identifies no new or increased significant aesthetic impacts associated with implementation of the proposed project. Therefore, the project's incremental contribution to cumulative impacts to aesthetics is less than cumulatively considerable.

Mitigation Measure(s)

None required.

Impact 5-2: Cumulative impacts to farmland. The project's incremental contribution to the cumulative impact would be *cumulatively considerable*.

The CCAP Update FEIR analyzed the potential for continued implementation of the CCAP to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. As noted in the CCAP Update FEIR, 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, and public recreation/and open space uses. The CCAP Update FEIR concluded that continued implementation of applicable CCAP regulations, including Section 10-5.525 of the SMRO, would help to reduce potential impacts. However, even with such regulations, cumulative impacts to farmland were determined to remain significant and unavoidable.

Development of the proposed project would result in a permanent loss of 57 acres of anticipated future reclaimed prime farmland and a temporary loss of up to 159 acres associated with new net total area of simultaneous disturbance over a 20-to-36-year period (see Impact 4.1-1 of this Draft SEIR). Upon completion of the proposed mining activities, the proposed project would reclaim 418.6 acres (51.3 percent) of 815.8 total acres to agriculture. The remaining 174 acres would be reclaimed to habitat and 204 acres to open water lake (see Table 3-1).

Mitigation Measure 4.1-1 requires the applicant to mitigate for loss of agricultural resources by protecting between 216 acres (57 + 159) and 330 acres (171 + 159) in a permanent conservation easement consistent with County regulations. Because the proposed project would result in a net loss of on-site farmland, project-level impacts regarding the conversion of agricultural land to non-agricultural uses were determined to remain significant and unavoidable. Therefore, the project's incremental contribution to the cumulative loss of agricultural land would be considered cumulatively considerable and significant and unavoidable.

Mitigation Measure 5-2

Implement Mitigation Measure 4.1-1a and b

Significance After Mitigation

Notwithstanding implementation of Mitigation Measure 4.1-1a and b, the project would result in a net loss of farmland, and therefore this impact is considered significant and unavoidable.

Impact 5-3: Cumulative impacts to air quality. The project's incremental contribution to the cumulative impact would be *less than cumulatively considerable*.

Issues related to air quality are, by nature, cumulative. Specifically, emissions of criteria pollutants from a given project, in combination with other proposed and pending projects in the region, have the potential to significantly contribute to air quality effects within the Sacramento Valley Air Basin (SVAB), resulting in an overall significant cumulative impact. This impact is addressed in Chapter 4.2 of this Draft SEIR, see Impact 4.2-2. The project's incremental contribution to cumulative air quality impacts would be less than cumulatively considerable.

Mitigation Measure(s)

None required.

Impact 5-4: Cumulative greenhouse gas emissions. The project's incremental contribution to the cumulative impact would be *less than cumulatively considerable*.

Issues related to Greenhouse Gas (GHG) emissions are, by nature, cumulative. Specifically, emissions of GHG contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). This impact is addressed in Chapter 4.2 of this Draft SEIR, see Impact 4.2-5. Implementation of Mitigation Measure 4.2-5 would reduce the project's incremental contribution to cumulative greenhouse gas impacts to less than cumulatively considerable.

Mitigation Measure 5-4

Implement Mitigation Measure 4.2-5.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 5-5: Cumulative impacts to energy. The cumulative impact is *less than significant*.

The CCAP Update FEIR analyzed potential impacts related to energy efficiency associated with continued implementation of the CCAP. As noted in the CCAP Update FEIR, energy would be used in the form of fossil fuels and electricity during the in-channel material removal and off-channel mining operations under the CCAP Update. However, the CCAP Update FEIR noted that it is in the mining operators' interests to minimize the costs of operations by conserving fossil fuels and electricity required during mining operations. In addition, existing regulations require the proper maintenance and tuning of diesel engine driven equipment (Section 10-3.408 of the In-Channel Ordinance) and limit on idling time (Section 10-4.415 of the Mining Ordinance) which would encourage efficient use of fuel. Furthermore, protection of lands containing identified mineral deposits from the encroachment of incompatible land uses would allow aggregate resources to remain available for future use, and thereby reduce transportation energy use requirements. The CCAP does not conflict with adopted goals, policies, actions, and measures related to energy conservation in the General Plan or the County CAP. Therefore, the CCAP Update FEIR concluded that continued implementation of the CCAP would not result in energy resources being used in a wasteful, inefficient, or unnecessary manner, and a less-than-significant cumulative impact would occur. The proposed project is consistent with the CCAP.

As discussed in Impact 4.2-7 of this Draft SEIR, all of the off-road equipment operated as part of the project would be subject to the In-Use Off-Road Diesel Vehicle Regulations, which require strict emissions reductions into the future. Emissions reductions are often achieved through the re-powering of equipment with higher tier engines, which emit fewer emissions, partially through increased fuel efficiency. With regard to electricity, the project applicant has previously installed an electricity generating windmill project site, which would continue to provide electricity to the electric dredge with implementation of the proposed project. The provision of on-site renewable energy systems represents an efficient means of meeting the project's electricity demand. The onsite wind power system would continue to support the County's CAP goal of reducing GHG emissions from electricity through increased reliance on renewable energy. Thus, the proposed project would not create a new significant cumulative impact beyond what was analyzed in the CCAP Update FEIR. Based on the above, the project's incremental contribution to cumulative energy impacts would be less than cumulatively considerable.

Mitigation Measure(s)

None required.

Impact 5-6: Cumulative impacts to biological resources. The project's incremental contribution to the cumulative impact is *less than cumulatively considerable*.

As demonstrated in this Draft SEIR, the proposed project would comply with all applicable County regulations related to biological resources, and would be consistent with the CCAP. Furthermore, this Draft SEIR includes additional project-specific mitigation measures to ensure that impacts to biological resources are less-than-significant. Therefore, the project's incremental contribution to cumulative impacts to biological resources would be less than cumulatively considerable.

Mitigation Measure 5-6

Implement Mitigation Measures 4.3-1(a-d), 4.3-6(a-c), and 4.3-7.

Significance After Mitigation.

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 5-7: Cumulative impacts to cultural and Tribal Cultural resources. The cumulative impact is *less than significant*.

As described in the CCAP Update FEIR, future mining occurring with the OCMP area would be subject to General Plan policies and Mining Ordinance regulations related to preservation of cultural resources, including Mining Ordinance Sections 10-4.410 and 10-4.502. As individual projects are proposed within the Cache Creek corridor that might affect tribal cultural resources, General Plan Policy CO-4.12 requires development projects to work with culturally affiliated tribes to identify and address tribal sacred sites, and Actions CO-A63, CO-A64 and CO-A69 require review of project areas with the Northwest Information Center (NWIC), the development of a cultural resources inventory and mitigation plan, if necessary, to protect resources before issuance of permits and consultation with affiliated tribes in archaeologically sensitive areas. Action CO-A65 as well as Section 10-3.404 of the In-Channel Ordinance and Section 10-4.410 of the Mining Ordinance identify actions to be taken should tribal cultural resources be identified (including human remains) prior to any groundbreaking activities and during in-channel and off-channel activities. Action CO-A70 requires referral of draft environmental documents to the appropriate culturally affiliated tribes for review and comment as part of the public review process. Given compliance with the aforementioned policies, actions, and regulations, the CCAP Update FEIR concluded that continued implementation of the CCAP would result in less-than-significant cumulative impacts to cultural and tribal cultural resources. The proposed project would be consistent with the CCAP.

Condition of Approval Nos. 72 through 76 of the 1996 EIR addressed cultural resource impacts of the original project. These conditions identified compliance with the regulations summarized above as mitigation for potential impacts. Condition of Approval No. 74 also required specific actions related to a known onsite archeological resource, all of which were implemented and fully discharged prior to commencement of mining.

The potential for impacts related to disturbance of historical, archaeological, and or tribal resources associated with implementation of the proposed project is analyzed in Section 4.4 of the Draft SEIR. Compliance with Section 10-4.410 of the Mining Ordinance and implementation of Mitigation Measure 4.4-1 would ensure that potential impacts would be reduced to less than significant. Thus, continued mining and reclamation as part of the proposed project would not create a new significant cumulative impact beyond what was analyzed in the CCAP Update FEIR. Based on the above, the project's incremental contribution to cumulative impacts to cultural resources would be less than cumulatively considerable.

Mitigation Measure 5-7

Implement Mitigation Measure 4.4-1.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 5-8: Cumulative impacts to geological and paleontological resources. The cumulative impact is *less than significant*.

The CCAP Update FEIR concluded that continued implementation of the CCAP would result in less-than-significant cumulative impacts related to geology and soils, mineral resources, and paleontological resources given compliance with applicable CCAP policies and regulations, including Mining Ordinance Section 10-4.410. The proposed project would be consistent with the CCAP.

Existing geological and soil conditions on the site would be adequate to support mining and reclamation of the project site. In addition, all recommendations in the Slope Stability Evaluation prepared for the proposed project would be incorporated to mitigate potential impacts. While some geologic characteristics may affect regional construction practices, impacts and mitigation measures are primarily site specific and project specific. The soil conditions, and the implications of such conditions, on any given site are independent. Although the proposed project could result in adverse impacts to unknown paleontological resources, mitigation has been included that would require a protocol for discovery of any resources. Based on the above, the project's incremental contribution to cumulative impacts to geology, soils, seismicity, mineral resources, and paleontological resources would be less than cumulatively considerable.

Mitigation Measure 5-8

Implement Mitigation Measure 4.5-5.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 5-9: Cumulative impacts from hazards and hazardous materials. The cumulative impact is *less than significant*.

The CCAP Update FEIR acknowledges that projects occurring under the CCAP may require routine storage of petroleum, lubricants, and other hazardous materials in drums or above ground storage tanks for fueling and maintenance activities. However, the CCAP Update FEIR notes that future off-channel mining projects would be required to comply with various Mining Ordinance regulations related to hazards, including Mining Ordinance Sections 10-4.403 and 10-4.415. The CCAP Update FEIR concluded that, with compliance with applicable regulations, continued implementation of the CCAP would result in less-than-significant cumulative impacts to hazards and hazardous materials. The proposed project would be consistent with the CCAP. Per Chapter

4.9 of this Draft SEIR, project-specific impacts related to hazards and hazardous materials were found to be less than significant.

Cumulative development projects and other operations within Yolo County would be subject to the same federal, State, and local hazardous materials management requirements as the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community. Based on the above, the project's incremental contribution to cumulative impacts related to hazardous materials transport, storage, and use would be less than cumulatively considerable.

Mitigation Measure(s)

None required.

Impact 5-10: Cumulative impacts to hydrology and water quality. The project's incremental contribution to the cumulative impact is *less than cumulatively considerable*.

Impacts related to stormwater quality, groundwater, and drainage patterns are discussed separately below.

Stormwater Quality

The CCAP Update FEIR notes that off-channel activities conducted under the CCAP could violate water quality standards (i.e., adversely affect water quality in the wet pits and adjacent groundwater) in the off-channel area if mining operations resulted in the discharge of contaminants to downstream waterways and/or promoted the generation of elevated levels of methylmercury in the wet pit lakes. However, the CCAP Update FEIR concluded that with compliance with County ordinances related to water quality, continued implementation of the CCAP would result in a less-than-significant cumulative impact related to violation of water quality standards or otherwise degrading surface water or groundwater quality. Such regulations include, but are not limited to, the following: Mining Ordinance Sections 10-4.413, 10-4.415, 10-4.417, 10-4.427, 10-4.437, and 10-4.438; and Reclamation Ordinance Sections 10-5.510 and 10-5.517. The proposed project would be consistent with the CCAP and the above noted regulations.

Construction activities have the potential to affect water quality and contribute to localized violations of water quality standards if stormwater runoff from ground disturbing activities enters receiving waters. Runoff from additional construction or mining sites within the project area could carry sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products, which could result in water quality degradation if runoff containing such sediment or contaminants should enter receiving waters in sufficient quantities.

Based on the above, ground-disturbing activities associated with the proposed project, in combination with construction activities associated with other reasonably foreseeable projects in the Cache Creek watershed, could result in cumulative impacts related to water quality. However, all construction projects resulting in disturbance of more than one acre of land are required to comply with the most current Construction General Permit requirements. Conformance with the Construction General Permit would require preparation of SWPPPs for all such projects, and

subsequent implementation of BMPs to prevent the discharge of pollutants. Considering the existing permitting requirements for construction activity in the project area, cumulative construction within the Cache Creek watershed would be heavily regulated and impacts related to the degradation of water quality would be minimized to the extent feasible.

Furthermore, similar to the proposed project, any other mining or reclamation activities occurring under the CCAP would be subject to compliance with applicable regulations in the Mining Ordinance and the Reclamation Ordinance related to water quality, including those listed above. Thus, urban pollutants entering and potentially polluting the local drainage system would not be expected to occur as a result of the project. The project would be subject to NPDES Industrial General Permit requirements, including implementation of BMPs and preparation of a site-specific SWPPP. Cumulative development projects within the project area would also be subject to all County requirements related to stormwater treatment and control. Compliance with the foregoing regulations would ensure that cumulative impacts related to the alteration of drainage patterns, the discharge of pollutants, and flooding are minimized to the extent feasible.

As described in Impact 4.6-1 of this Draft SEIR, the proposed project would increase the acreage of reclaimed wet pit lakes (relative to the reclamation plan considered in the 1996 EIR) and these lakes may be found to contain elevated levels of methylmercury in the future. However, Section 10-5.517 of the Reclamation Ordinance requires specific monitoring activities and lake management efforts (including remediation if necessary) if elevated levels are identified. Compliance with Section 10-5.517 would ensure that potential project-level impacts related to violation of water quality standards or waste discharge requirements associated with elevated levels of methylmercury would remain less than significant. Potential generation of methylmercury is dependent on the specific physical properties of each wet pit lake in the CCAP area, and conditions in one lake would not affect conditions in another lake with respect to methylmercury generation. In addition, each wet pit lake in the CCAP area would be similarly managed and subject to the monitoring (and remediation actions, if needed) of Reclamation Ordinance Section 10-5.517. The CCAP Update EIR found that the contribution of the CCAP Update to the regional water quality impact is not cumulatively considerable. Similarly, based on the above, the project's contribution to the regional water quality impact would be less than cumulatively considerable.

Groundwater

The CCAP Update FEIR concluded that given compliance with applicable regulations from the Mining Ordinance and Reclamation Ordinance, including Section 10-5.530 related to maintaining steep slopes below the groundwater table in mining wet pits, a less-than-significant impact would occur to groundwater. Per the CCAP Update FEIR, steeper slopes within mining pits discourage "clogging" of the aquifer and encourage the free flow of groundwater into and out of the wet pit lakes.

The proposed project is consistent with the CCAP and would comply with all applicable policies and regulations related to groundwater. Furthermore, the project site itself would continue to provide for groundwater recharge, both during mining activities and upon completion of reclamation. As discussed in Section 4.6 of this Draft SEIR, the proposed project would not substantially decrease groundwater levels at active off-site wells within 1,000 feet of the proposed

mining pit or result in substantial adverse effects to groundwater levels because there are no off-site wells within this distance. In addition, the project would not adversely affect groundwater quality. Thus, the project's contribution to cumulative impacts to regional groundwater recharge would be less than cumulatively considerable.

Drainage Patterns

The CCAP Update FEIR notes that off-channel mining activities associated with new mining areas identified in the CCAP would be located outside of the 100-year floodplain associated with Cache Creek. Furthermore, Section 10-4.416 of the Mining Ordinance requires that all off-channel mining operations be provided with a minimum 100-year flood protection. Thus, the CCAP Update FEIR concluded that mining activities that could include modification of the topography and construction of facilities would not impede or redirect flood flows, and a less-than-significant impact would occur.

The proposed project would not include the discharge of stormwater runoff to Cache Creek and, thus, would not have the potential to result in off-site flooding hazards due to increased stormwater flows to the creek. All stormwater runoff would flow to existing or future wet pits. While other cumulative development within the Cache Creek watershed could result in the creation of impervious surfaces, potentially increasing the rate or volume of stormwater entering Cache Creek, such effects would occur independently of the proposed project, and would not be exacerbated by the proposed project. Consequently, the project's contribution to the impacts to regional drainage patterns would be less than cumulatively considerable.

Conclusion

The proposed project would comply with all applicable standards and regulations included in the CCAP related to hydrology and water quality. Given that the proposed project is consistent with the CCAP, and all project-level impacts would be mitigated to less-than-significant levels, the project's incremental contribution to the significant cumulative impact would be less than cumulatively considerable.

Mitigation Measure 5-10

Implement Mitigation Measure 4.6-6.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact is considered less-than-significant.

Impact 5-11: Cumulative impacts to land use. The cumulative impact is *less than significant*.

The CCAP Update FEIR evaluated cumulative land use impacts related to continued implementation of the CCAP. The Initial Study prepared for the CCAP Update FEIR stated that the CCAP is consistent with the County General Plan and Zoning Code, and no conflicts were identified with other land use plans or regulations. The Initial Study concluded that no impact would occur with regard to land use and planning issues.

The project site is located within the boundaries of the CCAP and the proposed project would be consistent with the CCAP, including all applicable OCMP policies and applicable Mining Ordinance and Reclamation Ordinance regulations. As discussed in Chapter 4.9 of this Draft SEIR, the proposed project would not result in significant project-level impacts related to land use and planning. Thus, the cumulative impact to land use and planning would be less than significant with implementation of the proposed project.

Mitigation Measure(s)

None required.

Impact 5-12: Cumulative impacts from noise and vibration. The project's incremental contribution to the cumulative impact is *less than cumulatively considerable*.

Per the CCAP Update FEIR, off-channel mining operations within the OCMP area generate trucks trips on the County roadway network. The CCAP Update FEIR concluded that because a cumulative impact was identified in the General Plan EIR, the noise contribution from the off-channel mining that could occur under the CCAP could result in a cumulatively considerable and significant and unavoidable impact related to noise.

The potential for impacts related to noise and vibration associated with implementation of the proposed project is analyzed in Section 4.7 of the Draft SEIR. Compliance with Section 10-4.421 of the Mining Ordinance would ensure that potential impacts would be reduced to less than significant. The CEMEX mining operation has been in operation since the 1970's and was already operating when the General Plan and CCAP Update EIRs were prepared. The project proposes to extend mining and reclamation activities for an additional 20 years which is allowed under the CCAP. Thus, continued mining and reclamation as part of the proposed project would not create a new significant cumulative impact beyond what was analyzed in the CCAP Update FEIR which analyzed extending the mining program through 2068. Based on the above, the project's incremental contribution to cumulative impacts to noise and vibration would be less than cumulatively considerable.

Mitigation Measure(s)

None required.

Impact 5-13: Cumulative impacts to public services, utilities, and service systems. Based on the analysis below, the cumulative impact is *less than significant*.

The CCAP Update FEIR concluded that while off-channel mining projects could incrementally increase fire hazards associated with operation of heavy-duty mining equipment, impacts related to fire protection services would be less than significant. Furthermore, the CCAP Update FEIR concluded that the Cache Creek corridor is already patrolled by the Yolo County Sheriff's Department, and future mining projects would not result in a significant new change in the need for police protection. Because continued implementation of the CCAP would not include construction of any housing, the CCAP Update FEIR concluded that significant impacts to schools and other public services would not occur. With regard to utilities and service systems, as noted in the Initial Study prepared for the CCAP Update FEIR, future mining projects occurring pursuant

to the CCAP would not result in substantial water demands, would not require connection to public stormwater or sewer infrastructure, and would not generate substantial quantities of solid waste. The CCAP Update FEIR Initial Study concluded less-than-significant impacts, or no impact, would occur related to utilities and service systems. The proposed project would be consistent with the CCAP. The proposed project is a continuation of an existing operation and proposes no new changes that would result in need for public services (e.g., water supply, wastewater treatment plant capacity).

Based on the above, a less-than-significant cumulative impact would occur related to public services, utilities, and service systems.

Mitigation Measure(s)

None required.

Impact 5-14: Cumulative impacts to transportation and circulation. The project's incremental contribution to the cumulative VMT impact is cumulatively considerable. The project's incremental contribution to LOS policy conflicts is *less than cumulatively considerable*.

The CCAP Update FEIR states that minimization of aggregate truck trips is a fundamental consideration in implementation of the CCAP. The CCAP Update FEIR notes that by ensuring a local source of aggregate, Yolo has maximized the opportunity to reduce mining truck traffic in the County, thereby reducing vehicle miles travelled (VMT). The CCAP Update FEIR concluded that with continued implementation of applicable Mining Ordinance standards, including Sections 10-4.402, 10-4.408, 10-4.409, 10-4.419, and 10-4.502, impacts to transportation and circulation would be less than significant. The proposed project is consistent with the CCAP.

Impact 4.8-1 identifies a significant and unavoidable impact related to VMT. The VMT associated with the proposed project is a function of the total amount of aggregate sold annually (i.e., the number of haul trucks generated annually). Given that VMT increases resulting from the proposed project would contribute to VMT in the region, the incremental contribution of the project would be considered cumulatively considerable.

Impact 4.8-4 identifies a significant and mitigatable impact related to LOS policy conflict for the intersection of SR 16 and County Road 96. The analysis provides support for the necessary exception and the mitigation measure identifies the required findings.

Mitigation Measure(s)

For increased VMT, implement Mitigation Measure 4.8-1.

Mitigation Measure 5-14

For LOS policy conflicts, implement Mitigation Measure 4.8-4.

Significance After Mitigation

With implementation of mitigation measures identified above, the impact related to increased VMT remains significant and unavoidable, and the impact related to LOS policy conflict is reduced to less-than-significant.

5.5 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL 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 CCAP Update FEIR included a discussion and substantiation 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.

Use of Nonrenewable Resources

Implementation of the proposed project would result in the irreversible commitment of natural resources as it would include commercial mining of aggregate resources and the use of fossil fuels for those activities. Amending the permits for the proposed project would allow mining and processing of additional off-channel mineral resources that would not be replenished within near-term planning horizons. Continuation of the CEMEX mining operations would decrease the availability of aggregate resources in the future. However, the project is consistent with policies of the State and County recognizing that the extraction of minerals is an essential economic activity (as codified in PRC Section 2711(a) and Section 10-4.103 of the County Mining Ordinance). Additionally, the CEMEX site is located within the CCAP area, a geologic setting that is known to contain significant aggregate resources. One of the primary objectives of the ongoing CCAP program is to allow for the managed extraction of a controlled amount of the sand and gravel resources within designated areas under stringent regulations. The requested permit extension would allow for continued mining of a valuable and feasibly available aggregate resource in an already disturbed area. Section 10-4.411.1 of the Mining Ordinance recognizes this is desirable in that it precludes new mining operations elsewhere:

Sec. 10-4.411.1, Depth of Mining: This ordinance regulates the size of the footprint of the mining operation, and establishes no regulatory depth limit for off-channel mining. Unless an environmental analysis concludes that unacceptable environmental impacts will result,

mining operations shall be encouraged to excavate the full depth of available resources at any particular mining site. In conjunction with a minimize mining footprint, this will ensure efficiency in resource extraction, help minimize impacts to agriculture by containing the area of surface disturbance of any individual mining operation, and minimize impacts of water loss associated with evaporation from reclaimed lakes.

As such, impacts resulting from use of nonrenewable resources associated with the proposed project would be a less-than-significant impact.

Changes in Land Use Which Would Commit Future Generations

Land uses at the project site are already committed to mining, with reclamation to agriculture, habitat, and open space uses. While the project proposes various project modifications, there is no substantive change in land use from existing and/or approved conditions that would result in a significant or irreversible change in this category of impact.

Irreversible Changes from Environmental Accidents

The presence of mercury in the watershed is a pre-existing historic condition. As explained in Impact 4.6-1, it was recognized by the County at the initiation of the CCAP program in the early 1990's that reclamation of off-channel mining areas within the OCMP planning area to permanent wet pit lakes could present conditions favorable to the conversion of mercury to methylmercury. Based on the concern that the wet pit lakes could promote methylmercury formation, which could degrade water quality and have harmful effects related to bioaccumulation of mercury in fish and other wildlife, the County established a CCAP mercury monitoring program under Section 10.5.517 of the Reclamation Ordinance.

The mercury monitoring program established: monitoring protocols, ambient thresholds, monitoring requirements by phase, required reporting, required responses, triggers for expanded analysis, lake management requirements, and remediation requirements. If methylated mercury in lake fish exceeds ambient levels in the watershed the aggregate operators must address it with a Lake Management Plan (LMP). Options include water mixing, management of water chemistry, fish removal, and filling the lake. The County won't release reclamation bonds or accept lake dedications without acceptable monitoring history and/or a successful lake management plan. Operators are required to establish a mechanism to pay for their individual Lake Management Plans in perpetuity. In addition, the County collects a gravel mining Maintenance and Remediation Fee for use should unforeseen management issues occur in reclaimed lakes owned by the County.

If a lake exhibits exceedances over ambient for two or more consecutive years, the program requires:

- Additional monitoring
- Expanded analysis
- Lake Management Plans

As explained under Impact 4.6-1 the detected level of methylmercury in the existing CEMEX Phase 3-4 lake has remained elevated over comparable creek baseline samples for a majority of fish sample types for four sampling years which has triggered additional monitoring and expanded analysis, and will require if proposed reclamation to agriculture in that area is not approved.

Management options may differ for different pits based on site conditions. Also, the options may differ during mining, versus during idle periods, versus after mining. For this reason, LMPs may be multi-part or phased to reflect this.

Based on the County's regulatory requirements and controls, no significant irreversible change would occur.

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6 ALTERNATIVES

In accordance with CEQA and the CEQA Guidelines (Section 15126.6), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, that would “feasibly attain most of the project’s basic objectives, while avoiding or substantially lessening any of the significantly adverse environmental effects of the project.” An EIR need not consider every conceivable alternative to a project; rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice, even if those alternatives “impede to some degree the attainment of the project objectives or would be more costly.” Specifically, the CEQA Guidelines set forth the following criteria for selecting alternatives:

- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. (Section 15126.6[b]);
- The range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. (Section 15126.6[c]);
- The specific alternative of “no project” shall also be evaluated along with its impact. (Section 15126.6[e][1]);
- The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, an EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. (Section 15126.6[f]); and
- “[I]n some cases there may be no feasible alternative locations for a ... mining project which must be in close proximity to natural resources at a given location.” (Section 15126.6[f][2][b]).

6.1 INTRODUCTION

The proposal would amend the approved mining and reclamation permits to: 1) extend the term of the permit approvals by 20 years; 2) allow mining of more total tonnage (22.3 million additional tons mined; 20.0 million additional tons sold); 3) increase the allowed acreage of simultaneous disturbance; 4) increase the allowed area for processing activities; 5) allow reclamation in certain phases to occur later and to allow overall reclamation to occur later; 6) remove Phase 7 from the operation; 7) address inconsistencies in approved plans verses on-the-ground conditions; 8) modify phase boundaries; 9) modify reclamation plans to reclaim more area and modify reclamation end uses to decrease the area of reclaimed agriculture and increase the area of

reclaimed lake; 10) increase the area of reclaimed habitat; and 11) modify other approvals to be consistent with the request. A complete description of the project is contained in Chapter 3.0, Project Description.

6.2 PROJECT OBJECTIVES AND IMPACTS

This section identifies the nine project objectives and restates the project's significant impact statements.

6.2.1 Project Objectives

Project objectives are identified in Chapter 3.0, Project Description. To assist in evaluating project alternatives, the proposed project's objectives are repeated below.

- To continue extraction of sand and gravel resources at the approved annual rate of production for the processing and sale of aggregate products through 2047.
- To maximize the extraction of the remaining available sand and gravel resources located within the permitted mining footprint.
- To increase total tons sold over the 20-year extended life of the permit by 20 million tons.
- To continue to supply an economic and reliable source of construction materials to the Yolo County market, utilizing the existing aggregate processing facility, conveyor system and associated infrastructure.
- To establish a new settling pond for deposition of process fines.
- To use the eastern 31.9 acres of the existing Phase 2 area as an extension of the existing processing plant site for purposes of product stockpiling and construction materials recycling.
- To implement the proposed reclamation plan to establish end uses of agriculture, permanent lakes, and wildlife habitat in accordance with the Surface Mining and Reclamation Act (PRC 2710, et seq.) and CCAP.
- To continue to employ approximately 15 mining and processing personnel at the site.
- To resolve outstanding operational concerns identified by the County.

6.2.2 Approach

The purpose of this discussion of alternatives to the project is to enable County decision-makers to consider how alternatives to the project as proposed might reduce or avoid the project's impacts on the physical environment. The summary below categorizes impact conclusions based on level of significance and identification of new mitigation measures. The analysis of alternatives below examines whether implementation of the alternatives would result in different conclusions than those reached for the proposed project in the various areas of potential impact, focusing in

particular, on whether significant and unavoidable impacts could be lessened or avoided with any alternative.

This Draft SEIR supports the conclusions that the following potential effects of project implementation would have no impact or be less than significant impacts without the need for new mitigation measures for the following topics:

- aesthetics and visual resources (Section 4.9 and Impact 5.1)
- agricultural resources (Impacts 4.1-2, 4.1-3, and 4.1-4)
- air quality (Impacts 4.2-1, 4.2-2, 4.2-3, 4.2-3, 4.2-6, 4.2-9, and 5-3)
- biological resources (Impacts 4.3-2, 4.3-3, 4.3-5, and 4.3-8)
- cultural resources (Impacts 4.4-3, and 4.4-6)
- energy (Impacts 4.2-7, 4.2-8, and 5-5)
- forestry resources (Section 4.1)
- geological resources (Impacts 4.5-1, 4.5-2, 4.5-3, 4.5-4, 4.5-6, 4.5-7, and 4.5-8)
- hazards and hazardous materials (Section 4.9 and Impact 5-9)
- hydrology and water quality (Impacts 4.6-1, 4.6-2, 4.6-3, 4.6-4, and 4.6-5)
- land use and planning (Section 4.9 and Impact 5-11)
- noise and vibration (Impacts 4.7-1, 4.7-2, 4.7-3, 4.7-4, and 5-12)
- population and housing (Section 4.9)
- public services and recreation (Section 4.9 and Impact 5-13)
- transportation and circulation (Impacts 4.8-2 and 4.8-3)
- utilities and service systems (Section 4.9 and Impact 5-13)
- wildfire (Section 4.9)

This Draft SEIR substantiates that the following potential effects of project implementation would be less-than-significant with implementation of identified new mitigation measures:

- increase in GHG emissions (Impact 4.2-5)
- impacts to special status species (Impact 4.3-1)

- impacts to wildlife movement and corridors (Impact 4.3-4)
- degrade the quality of the environment (Impact 4.3-6)
- conflict with local policies protecting biological resources (Impact 4.3-7)
- impacts to historical resources (Impacts 4.4-1)
- impacts to unique archeological resources (Impact 4.4-2)
- impacts to Tribal Cultural Resources (Impact 4.4-4)
- impacts to examples of major periods of history (Impact 4.4-5)
- impacts to paleontological resources (Impact 4.5-5)
- conflict with plans related to hydrology and water quality (Impact 4.6-6)
- conflict with local policies related to LOS for specified intersections (Impact 4.8-4)
- cumulative greenhouse gas emissions (Impact 5-4)
- cumulative impacts to biological resources (Impact 5-6)
- cumulative impacts to cultural and Tribal Cultural Resources (Impact 5-7)
- cumulative impacts to geology and paleontological resources (Impact 5-8)
- cumulative impacts related to hydrology and water quality (Impact 5-10)

The Draft SEIR supports the conclusion that impacts restated below related to loss of farmland and increases in VMT would be significant and unavoidable:

- Impact 4.1-1: Implementation of the proposed project would have the potential to 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. The impact would be significant and unavoidable.
- Impact 4.8-1: Cause an increase in baseline total VMT. The impact would be significant and unavoidable.
- Cumulative Impact 5-2: Cumulative impacts to farmland. The project's incremental contribution to cumulative farmland impacts is cumulatively considerable.
- Cumulative Impact 5-14: Cumulative impacts to transportation and circulation (net increase in VMT). The project's incremental contribution to increases in VMT is

cumulatively considerable.

6.3 SELECTION AND ANALYSIS OF ALTERNATIVES

The 1996 EIR considered five project-level alternatives:

- 1996 Alternative 1: No Project
- 1996 Alternative 2a: Shallow Mining (Expanded Area)
- 1996 Alternative 2b: Shallow Mining (Decreased Volume)
- 1996 Alternative 3a: Decreased Mining (Limited Extraction Rate)
- 1996 Alternative 3b: Decreased Mining (Limited Extraction Period)

The No Project Alternative assumed mining and reclamation activities under the “short-term” (five-year) mining permit held by the former operator (Solano Concrete) would be completed, and the existing vested plant facilities would continue to operate, processing aggregate from an unknown off-site source. The two shallow mining alternatives were found to be more impactful including increased loss of farmland, and economically infeasible. These alternatives did not meet the objectives of the project and were inconsistent with the CCAP objective of encouraging deeper mining within a smaller footprint. The two decreased mining alternatives were found to be inconsistent with the objectives of the project and therefore economically infeasible.

Based on consideration of the alternatives previously evaluated in the 1996 EIR, current site conditions, CCAP objectives, and the requirements of CEQA, the following alternatives to the proposed project are evaluated in this Draft SEIR:

- Alternative 1A, No Project Alternative – This alternative assumes the project is not modified as proposed, no permit extension is granted, and the current reclamation plan would stay in place. The current approvals would expire August 11, 2027. There would be no change in total mined tonnage.
- Alternative 1B, No Project Alternative, Compliance Concerns Corrected – This alternative assumes the project is not modified as proposed, no permit extension is granted, and the current reclamation plan would stay in place. The current approvals would expire August 11, 2027. There would be no change in total mined tonnage. This alternative does assume however, that modifications to the mining and reclamation plans are made to satisfy outstanding compliance concerns.

These modifications include: changes to the mining and reclamation plans to incorporate areas that were overmined and encroachments within the 200-foot Cache Creek setback; design and implementation of expanded hedgerows along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2; resolution of temporary impacts to croplands in excess of the maximum 126 acres of disturbance assumed in the 1996 EIR; corrections to phasing numbering and order; corrections to lot lines; and modifications to fully

comport all approvals over the years to one conformed set of mining and reclamation plans, reclamation narrative, and Habitat Restoration Plan (HRP).

- Alternative 2, Shorter Permit Extension – This alternative assumes all proposed modifications to the project, except the permit extension is limited to 10 years, which is one half the requested period. Annual mined tonnage, mining footprint, and all other approved components of the project would continue. Total additional mining tonnage would be 10,668,263 tons mined (9,968,060 tons sold) which is 50 percent less than the requested amount.
- Alternative 3, Limited Mining During Extended Period – This alternative assumes the annual cap on extraction (1,204,819 tons mined; 1,000,000 tons sold) is reduced by 50 percent to 602,410 tons mined and 500,000 tons sold for the requested permit extension period (2027 to 2047). The approved 20 Percent Exceedance would continue which would allow a maximum of up to 722,892 tons mined and 600,000 tons sold in any given year.

These alternatives represent a reasonable range of potential alternatives to the proposed project that could potentially reduce or avoid environmental impacts identified in this Draft SEIR. Table 6-1 provides a comparison of key features of the project and alternatives.

Table 6-1: Comparison of Project and Alternatives

Alt #	Alt Name	Permit Expiration	Annual Tons Mined ^[1]	Total Tons Mined	Phases	Key Differences
	Proposed Project	2047	1,149,425	53.54 mil	6	See Chapter 3.0
1A	No Project, Approved Operation Continues	2027	1,204,819	32.17 mil	7	Same as approved project
1B	No Project, Compliance Concerns Corrected	2027	1,204,819	32.17 mil	7	Approved project with compliance corrections
2	Shorter Permit Extension	2037	1,149,425	42.84 mil	6	Same as proposed project for ten more years
3	Limited Mining During Extended Period	2047	602,410	42.84 mil	6	Half annual tonnage of proposed project for 20 more years

Notes:

¹ Does not include approved 20 Percent Exceedance

6.4 ALTERNATIVES ANALYSIS

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative’s consistency with the project objectives and evaluation of impacts to the existing

environment in comparison to the proposed project's identified impacts. While an effort has been made to include quantitative data for certain topics where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Reduced or lower as compared to the proposed project;
- "Similar" = Similar or equivalent to the proposed project; and
- "Greater" = Increased or more than proposed project.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, an alternative may reduce the relative intensity of a significant impact identified for the proposed project, but the impact might still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. These nuances are described where relevant in the subsequent assessments.

See Table 6-1 at the end of this chapter for a comparison of the environmental impacts resulting from the considered alternatives and the proposed project.

6.4.1 Alternative 1A, No Project Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

"... discuss [...] existing conditions [...] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (Id., subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the

practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.” (Id., subd. [e][3][B]).

Principal Characteristics

This alternative assumes the project is not modified as proposed and no permit extension is granted. The current approvals would expire August 11, 2027. There would be no change in permitted maximum total mined tonnage. Under this alternative, mining, processing, and mixing of concrete and asphalt materials would cease at the site in 2027. Reclamation would proceed as described in the current approved reclamation plan.

Because local construction activities and the regional market demand a certain quantity of these aggregate resources, it is likely that the demand would be filled by another local aggregate supplier, or the materials would be imported from outside the area. The reduced supply might also result in higher prices. Furthermore, under this alternative the applicant would not be precluded from seeking subsequent approvals to conduct further mining and aggregate processing at the project site or at other planned mining (SGRO zoned) sites within the CCAP plan area.

Consistency with Project Objectives

The No Project Alternative does not meet any of the project objectives. In addition, the operator has indicated that the proposed reclamation under Alternative 1A could not be fully implemented during the original permit term because the salvage of soil resources from the entire footprint of all mining phases would be required to complete the planned reclamation to agriculture, and mining has not progressed as fast as originally anticipated.

Impacts of Alternative

The following evaluates the impacts of this alternative on baseline conditions as compared to the impacts of the proposed project on baseline conditions for each impact area addressed within this Draft SEIR.

Aesthetics and Visual Resources

Under the No Project Alternative, mining operations at the project site would continue until 2027 and reclamation would be completed thereafter (sooner than would occur under the proposed project). Post reclamation uses would include open water lake, habitat, and agriculture based on the approved reclamation for the site, and after reclamation is complete, would no longer contribute to significant cumulative aesthetic impacts identified in the CCAP Update EIR. Therefore, this alternative could result in fewer impacts related solely to aesthetic effects at the site. However, to the extent this alternative results in new mining elsewhere inside or outside of the CCAP area, aesthetic and visual impacts could increase.

Agricultural and Forestry Resources

The proposed project does not propose mining outside mining boundaries approved in the 1996 EIR (i.e., the area to be mined is similar under the proposed project and the No Project

Alternative). Therefore, the potential for soil disturbance and impacts to farmland resources under the No Project Alternative and the proposed project are similar. However, because the existing approved reclamation plan would result in 57 acres more of reclaimed farmland, impacts to agriculture would be less under this Alternative.

Air Quality, Greenhouse Gases, and Energy

Under the No Project Alternative, mining operations at the CEMEX site would cease after 2027, and emissions of criteria pollutants and greenhouse gases associated with mining and processing aggregate at the site would cease locally thus resulting in fewer direct GHG emissions. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, combined direct and indirect GHG emissions are likely to result in similar impacts as compared to the proposed project.

Biological Resources

The area to be mined and reclaimed under the proposed project would not substantially change from the approved project. The reclamation area boundary will increase by about 100 acres reflecting the incorporation of all areas to be reclaimed into the permit plan sheets. Reclamation in these areas is required; however, they were not included in the approved reclamation plan sheets. The proposed reclaimed lakes will be further separated from the creek corridor, however, the proposed modifications to the HRP, including identified mitigation measures, will result in improved biological outcomes, particularly north of the plant site. Impacts to biological resources generally would be similar to those that would result from the proposed project; however, as proposed reclamation of a majority of the site would occur much sooner under this alternative, impacts overall would be decreased as a result of the shorter period of disturbance and smaller total area of disturbance at any one time.

Cultural Resources and Tribal Cultural Resources

The proposed project does not propose mining outside mining boundaries approved in the 1996 EIR (i.e., the area to be mined is similar under the proposed project and Alternative 1B). Therefore, the potential for soil disturbance and impacts to cultural resources under this Alternative and the proposed project are similar.

Geology and Soils, Mineral Resources, and Paleontological Resources

Under the No Project Alternative, mining operations at the site would continue until closure in 2027 and reclamation of the mining areas would occur thereafter. Reclamation of the site in 2027 would effectively preclude continued mining of a known mineral resource of value to the region. Reclamation to agriculture, habitat, and open space lake features overlying existing unmined mineral resources would effectively preclude future mining of those resources, particularly if special status species and habitat result. Failure to mine the known feasibly available resource could also result in pressures to open new mining elsewhere.

Impacts related to slope stability would be similar because reclaimed slopes would be subject to compliance with Mining Ordinance Section 10-4.431 and Reclamation Ordinance Section 10-5.504, which require slope stability analyses to demonstrate that slopes will be stable. The potential to unearth paleontological resources may be reduced because the total amount of

material mined at the site (materials that could contain paleontological resources) under this Alternative would be reduced. Therefore, this alternative could result in greater impacts related to conflict with the County CCAP, but fewer impacts related to potential paleontological impacts at the project site.

Hydrology and Water Quality

Under the No Project Alternative, mining operations at the site would continue until closure in 2027 and reclamation of the mining areas would occur thereafter. Impacts related to hydrology and water quality (e.g., methylmercury in wet pit lakes, etc.) would be similar because the operator would be subject to compliance with all mining and reclamation ordinance requirements related to water quality protection under both the No Project Alternative and the proposed project. As assessed in Impact 4.6-1, proposed changes in the configuration of the reclaimed lakes would have no substantive adverse effect on methylmercury considerations and backfilling of Phase 3-4 lakes may be beneficial in light of preliminary mercury monitoring results. Therefore, hydrology and water quality impacts under this alternative would be similar.

Noise

Mining and processing activities and associated noise impacts would be similar to the proposed project until 2027, at which time they would cease. Noise generation and potential less-than-significant impacts related to noise at nearby receptors would be decreased between 2027 and 2047, compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, noise associated with mining may occur elsewhere.

Transportation and Circulation

This alternative would be similar to the proposed project with respect to transportation and circulation impacts until 2027, at which time mining would cease under Alternative 1A. As detailed in Impact 4.8-1 of this Draft SEIR, the proposed project would extend mining and aggregate production at the site for 20 years (2027 to 2047) and associated truck traffic could contribute to a significant VMT impact on the public roadway network. Under the No Project alternative, aggregate production at the site would cease after 2027 and the contribution to the future VMT impact would be reduced. Therefore, this alternative would result in fewer impacts on the project site as compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, VMT associated with mining may occur elsewhere.

6.4.2 Alternative 1B, No Project Alternative, Compliance Concerns Corrected Alternative

Principal Characteristics

This alternative assumes the project is not modified as proposed, no permit extension is granted, and the current reclamation plan would stay in place. The current approvals would expire August 11, 2027. There would be no change in total mined tonnage. Under this alternative, mining, processing, and mixing of concrete and asphalt materials would cease at the site in 2027. Reclamation would proceed as described in the current approved reclamation plan. Because local

construction activities and the regional market demand a certain quantity of these aggregate resources, it is likely that the demand would be filled by another local aggregate supplier, or the materials would be imported from outside the area. Furthermore, under this alternative the applicant would not be precluded from seeking subsequent approvals to conduct further mining and aggregate processing at the project site or at other planned mining (SGRO zoned) sites within the CCAP plan area.

This alternative assumes that modifications to the mining and reclamation plans are made to satisfy outstanding compliance concerns. These modifications include: changes to the mining and reclamation plans to incorporate areas that were overmined and encroachments within the 200-foot Cache Creek setback; design and implementation of expanded hedgerows along the north boundary of the west half of Phase 1 and the entire west boundary between Phase 1 and Phase 2; resolution of temporary impacts to croplands in excess of the maximum 126 acres of disturbance assumed in the 1996 EIR; corrections to phasing numbering and order; corrections to lot lines; and modifications to fully comport all approvals over the years to one conformed set of mining and reclamation plans, reclamation narrative, and HRP.

Consistency with Project Objectives

The No Project Alternative (1B) Compliance Concerns Corrected Alternative meets the following project objective:

- To resolve outstanding operational concerns identified by the County.

Alternative 1B does not meet any of the remaining project objectives. In addition, the operator has indicated that the proposed reclamation under Alternative 1B could not be fully implemented during the original permit term because the salvage of soil resources from the entire footprint of all mining phases would be required to complete the planned reclamation to agriculture, and mining has not progressed as fast as originally anticipated.

Impacts of the Alternative

The following evaluates the impacts of this alternative on baseline conditions as compared to the impacts of the proposed project on baseline conditions for each impact area addressed within this Draft SEIR.

Aesthetics and Visual Resources

Under Alternative 1B, mining operations at the project site would continue until 2027 and reclamation would be completed thereafter (sooner than would occur under the proposed project). Post reclamation uses would include open water lake, habitat, and agriculture based on the approved reclamation for the site, and after reclamation is complete, would no longer contribute to significant cumulative aesthetic impacts identified in the CCAP Update EIR. Therefore, this alternative could result in fewer impacts related solely to aesthetic effects at the site. However, to the extent this alternative results in new mining elsewhere inside or outside of the CCAP area, aesthetic and visual impacts would increase. However, to the extent this alternative results in new mining elsewhere inside or outside of the CCAP area, aesthetic and visual impacts could increase.

Agricultural and Forestry Resources

The proposed project does not propose mining outside mining boundaries approved in the 1996 EIR (i.e., the area to be mined is similar under the proposed project and Alternative 1B). Therefore, the potential for soil disturbance and impacts to farmland resources under this Alternative and the proposed project are similar. However, because the existing approved reclamation plan would result in 57 acres more of reclaimed farmland, impacts to agricultural would be less under this Alternative.

Air Quality, Greenhouse Gases, and Energy

Under Alternative 1B, mining operations at the CEMEX site would cease after 2027, and emissions of criteria pollutants and greenhouse gases associated with mining and processing aggregate at the site would cease locally thus resulting in fewer direct GHG emissions. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, combined direct and indirect GHG emissions are likely to result in similar impacts as compared to the proposed project.

Biological Resources

The area to be mined and reclaimed under the proposed project would not substantially change from the approved project. The reclamation area boundary will increase by about 100 acres reflecting the incorporation of all areas to be reclaimed into the permit plan sheets. Reclamation in these areas is required; however, they were not included in the approved reclamation plan sheets. The proposed reclaimed lakes will be further separated from the creek corridor; however, the proposed modifications to the HRP, including identified mitigation measures, will result in improved biological outcomes, particularly north of the plant site. Impacts to biological resources generally would be similar to those that would result from the proposed project; however, as proposed reclamation of a majority of the site would occur much sooner under this alternative, impacts overall would be decreased as a result of the shorter period of disturbance and smaller total area of disturbance at any one time.

Cultural Resources and Tribal Cultural Resources

The proposed project does not propose mining outside mining boundaries approved in the 1996 EIR (i.e., the area to be mined is similar under the proposed project and the No Project Alternative, Compliance Concerns Corrected). Therefore, the potential for soil disturbance and impacts to cultural resources under the No Project Alternative, Compliance Concerns Corrected and the proposed project are similar.

Geology and Soils, Mineral Resources, and Paleontological Resources

Under Alternative 1B, mining operations at the site would continue until closure in 2027 and reclamation of the mining areas would occur thereafter. Reclamation of the site in 2027 would effectively preclude continued mining of a known mineral resource of value to the region. Reclamation to agriculture, habitat, and open space lake features overlying existing unmined mineral resources would effectively preclude future mining of those resources, particularly if special status species and habitat result. Failure to mine the known feasibly available resource could also result in pressures to open new mining elsewhere.

Impacts related to slope stability would be similar because reclaimed slopes would be subject to compliance with Mining Ordinance Section 10-4.431 and Reclamation Ordinance Section 10-5.504, which require slope stability analyses to demonstrate that slopes will be stable. The potential to unearth paleontological resources may be reduced because the total amount of material mined at the site (materials that could contain paleontological resources) under this Alternative would be reduced. Therefore, this alternative could result in greater impacts related to conflict with the County CCAP, but fewer impacts related to potential paleontological impacts at the project site.

Hydrology and Water Quality

Under Alternative 1B, mining operations at the site would continue until closure in 2027 and reclamation of the mining areas would occur thereafter. Impacts related to hydrology and water quality (e.g., methylmercury in wet pit lakes, etc.) would be similar because the operator would be subject to compliance with all mining and reclamation ordinance requirements related to water quality protection under this Alternative and the proposed project. As assessed in Impact 4.6-1, proposed changes in the configuration of the reclaimed lakes would have no substantive adverse effect on methylmercury considerations and backfilling of Phase 3-4 lakes may be beneficial in light of preliminary mercury monitoring results. Therefore, hydrology and water quality impacts under this alternative would be similar.

Noise

Mining and processing activities, and associated noise impacts would be similar to the proposed project until 2027, at which time they would cease. Noise generation and potential less-than-significant impacts related to noise at nearby receptors would be decreased between 2027 and 2047, compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, noise associated with mining may occur elsewhere.

Transportation and Circulation

This alternative would be similar to the proposed Project with respect to transportation and circulation impacts until 2027, at which time mining would cease under Alternative 1B. As detailed in Impact 4.8-1 of this Draft SEIR, the proposed project would extend mining and aggregate production at the site for 20 years (2027 to 2047) and associated truck traffic could contribute to a significant VMT impact on the public roadway network. Under Alternative 1B, aggregate production at the site would cease after 2027 and the contribution to the future VMT impact would be reduced. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, VMT associated with mining may occur elsewhere.

6.4.3 Alternative 2, Shorter Permit Extension

Principal Characteristics

This alternative is identical to the proposed project, except the permit extension is limited to 10 years (through 2037) which is half of the requested period. Annual mined tonnage, mining footprint, and all other components of the project would be the same. Total additional mining

tonnage would be 10,668,263 tons mined (9,968,060 tons sold) which is 50 percent less than the requested amount.

Consistency with Project Objectives

Alternative 2 generally meets four of the nine project objectives and partially meets two of them:

- To continue to supply an economic and reliable source of construction materials to the Yolo County market, leveraging the existing aggregate processing facility, conveyor system and associated infrastructure. (Partially achieved with this Alternative.)
- To modify mining phases to allow an electric dredge to efficiently move between mining phases without the need to disassemble and reassemble the dredge equipment and establish a new settling pond for deposition of process fines.
- To use the eastern 31.9 acres of the existing Phase 2 area as an extension of the existing processing plant site for purposes of product stockpiling and construction materials recycling.
- To implement the proposed reclamation plan to establish end uses of agriculture, permanent lakes, and wildlife habitat in accordance with the Surface Mining and Reclamation Act (PRC 2710, et seq.). (Partially achieved with this Alternative.)
- To continue to employ approximately 15 mining and processing personnel at the site.
- To resolve outstanding operational concerns identified by the County.

The operator has indicated that the proposed reclamation under Alternative 2 could not be fully implemented during the reduced permit term because the salvage of soil resources from the entire footprint of all mining phases would be required to complete the planned reclamation to agriculture, and ten years would not provide adequate time for removal of the resource, nor economically support existing equipment.

Impacts of Alternative

The following evaluates the impacts of this alternative on baseline conditions as compared to the impacts of the proposed project on baseline conditions for each impact area addressed within this Draft SEIR.

Aesthetics and Visual Resources

Under Alternative 2, mining operations at the project site would be extended by 10 years and continue until 2037. Post-reclamation uses would include open water lake, habitat, and agriculture based on the approved reclamation for the site, and after reclamation is complete (which would occur sooner than under the proposed project), the project site would no longer contribute the significant cumulative aesthetic impacts identified in the CCAP Update EIR. Relative to the proposed project, the duration of the project site's contribution to the significant cumulative aesthetic impact would be reduced. Therefore, this alternative could result in fewer impacts

related solely to aesthetic effects at the site. However, to the extent this alternative results in new mining elsewhere inside or outside of the CCAP area, aesthetic and visual impacts would increase.

Agricultural and Forestry Resources

Under Alternative 2, mining operations at the project site and associated disturbance to farmland would be similar to what would occur under the proposed project; however, the length of time portions of the site remain disturbed would decrease compared to the proposed project. All requirements for mitigation of loss of farmland resources described in Mitigation Measure 4.1-1a for the proposed project would also be implemented under this alternative. Therefore, this alternative would result in similar impacts on the project site as compared to the proposed project.

Air Quality, Greenhouse Gases, and Energy

Under Alternative 2, mining operations at the CEMEX site would cease after 2037, and emissions of criteria pollutants and greenhouse gases associated with mining and processing aggregate at the site would cease locally thus resulting in fewer direct GHG emissions. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, combined direct and indirect GHG emissions are likely to be similar under this alternative.

Biological Resources

The area to be mined and reclaimed under the proposed project would not substantially change from the approved project. The reclamation area boundary will increase by about 100 acres reflecting the incorporation of all areas to be reclaimed into the permit plan sheets. Reclamation in these areas is required; however, they were not included in the approved reclamation plan sheets. The proposed reclaimed lakes will be further separated from the creek corridor; however, the proposed modifications to the HRP, including identified mitigation measures, will result in improved biological outcomes, particularly north of the plant site. Impacts to biological resources generally would be similar to those that would result from the proposed project; however, as proposed reclamation of a majority of the site would occur sooner under this alternative, impacts overall would be decreased as a result of the shorter period of disturbance and smaller total area of disturbance at any one time.

Cultural Resources and Tribal Cultural Resources

Under Alternative 2, soil disturbance and mining operations at the project site (activities that could impact cultural resources) and associated effects would be similar to what would occur under the proposed project. Therefore, the potential for soil disturbance and impacts to cultural resources under the Alternative 2 and the proposed project are similar.

Geology and Soils, Mineral Resources, and Paleontological Resources

Under Alternative 2, mining operations at the site would continue until closure in 2037 and reclamation of the mining areas would occur thereafter. Reclamation of the site in 2037 would effectively preclude continued mining of a known mineral resource of value to the region. Reclamation to agriculture, habitat, and open space lake features overlying existing unmined mineral resources would effectively preclude future mining of those resources, particularly if

special status species and habitat result. Failure to mine the known feasibly available resource could also result in pressures to open new mining elsewhere.

Impacts related to slope stability would be similar because reclaimed slopes would be subject to compliance with Mining Ordinance Section 10-4.431 and Reclamation Ordinance Section 10-5.504, which require slope stability analyses to demonstrate that slopes will be stable. The potential to unearth paleontological resources may be reduced because the total amount mined at the site (materials that could contain paleontological resources) would be reduced. Therefore, this alternative could result in greater impacts related to conflict with the County CCAP, but fewer impacts related to potential paleontological impacts at the project site.

Hydrology and Water Quality

Under Alternative 2, mining operations at the site would continue until closure in 2037 and reclamation of the mining areas would occur thereafter. Impacts related to hydrology and water quality (e.g., methylmercury in wet pit lakes, etc.) would be similar because the operator would be subject to compliance with all mining and reclamation ordinance requirements related to water quality protection under both this alternative and the proposed project. As assessed in Impact 4.6-1, proposed changes in the configuration of the reclaimed lakes would have no substantive adverse effect on methylmercury considerations and backfilling of Phase 3-4 lakes may be beneficial in light of preliminary mercury monitoring results. Therefore, hydrology and water quality impacts under this alternative would be similar.

Noise

Mining and processing activities and associated noise impacts would be similar to the proposed project until 2037, at which time they would cease. Noise generation and potential less-than-significant impacts related to noise at nearby receptors would be decreased between 2037 and 2047, compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, noise associated with mining may occur elsewhere.

Transportation and Circulation

This alternative would be similar to the proposed project with respect to transportation and circulation impacts until 2037, at which time mining would cease under Alternative 1A. As detailed in Impact 4.8-1 of this Draft SEIR, the proposed project would extend mining and aggregate production at the site for 20 years (2027 to 2047) and associated truck traffic could contribute to a significant VMT impact on the public roadway network. Under this Alternative, aggregate production at the site would cease after 2037 and the contribution to the future VMT impact would be reduced. Therefore, this alternative would result in fewer impacts on the project site as compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, VMT associated with mining may occur elsewhere.

6.4.4 Alternative 3, Limited Mining During Extended Period

Principal Characteristics

This alternative assumes the annual cap on extraction (1,204,819 tons mined; 1,000,000 tons sold), is reduced by 50 percent to 602,410 tons mined and 500,000 tons sold for the requested permit extension period (2027 to 2047). The approved 20 Percent Exceedance would continue which would allow a maximum of up to 722,892 tons mined and 600,000 tons sold in any given year. This alternative assumes that the project is modified as proposed, a permit extension is granted, and the revised reclamation plan would be implemented.

Consistency with Project Objectives

Alternative 3 generally meets three of the nine project objectives and partially meets three of them:

- To continue to supply an economic and reliable source of construction materials to the Yolo County market, leveraging the existing aggregate processing facility, conveyor system and associated infrastructure. (Partially achieved with this Alternative.)
- To modify mining phases to allow an electric dredge to efficiently move between mining phases without the need to disassemble and reassemble the dredge equipment and establish a new settling pond for deposition of process fines.
- To use the eastern 31.9 acres of the existing Phase 2 area as an extension of the existing processing plant site for purposes of product stockpiling and construction materials recycling.
- To implement the proposed reclamation plan to establish end uses of agriculture, permanent lakes, and wildlife habitat in accordance with the Surface Mining and Reclamation Act (PRC 2710, et seq.). (Partially achieved with this Alternative.)
- To continue to employ approximately 15 mining and processing personnel at the site. (Partially achieved with this Alternative.)
- To resolve outstanding operational concerns identified by the County.

The operator has indicated that the proposed reclamation under Alternative 3 could not be fully implemented during the reduced permit term because the salvage of soil resources from the entire footprint of all mining phases would be required to complete the planned reclamation to agriculture and reducing annual extraction by half would not provide adequate time for removal of the resource, nor economically support existing equipment or labor.

Impacts of Alternative

The following evaluates the impacts of this alternative on baseline conditions as compared to the impacts of the proposed project on baseline conditions for each impact area addressed within this Draft SEIR.

Aesthetics and Visual Resources

Under Alternative 3, mining operations would continue through 2047 (similar to the proposed project) but the annual cap on extraction would be reduced by 50 percent. Under this alternative, the mining period would be the same as the proposed project, but the intensity of mining and production would be reduced. Prior to completion of reclamation after 2047, the project site would continue to contribute to the significant cumulative aesthetic impact (identified in the CCAP Update EIR). Relative to the proposed project, the duration of the project site's contribution to the significant cumulative aesthetic impact (i.e., by the presence of the processing plant, stockpiles, etc.) would be similar. Therefore, this alternative would result in similar impacts on the project site as compared to the proposed project. However, to the extent this alternative results in new mining elsewhere inside or outside of the CCAP area, aesthetic and visual impacts would increase.

Agricultural and Forestry Resources

Under Alternative 3, mining operations at the project site and associated disturbance to farmland would be similar to what would occur under the proposed project. All requirements for mitigation of loss of farmland resources described in Mitigation Measure 4.1-1a for the proposed project would also be implemented under this alternative. Therefore, this alternative would result in similar impacts on the project site as compared to the proposed project.

Air Quality, Greenhouse Gases, and Energy

Under Alternative 3, mining operations and aggregate production levels at the project site would decrease between 2027 and 2047 relative to the proposed project, and emissions of criteria pollutants and greenhouse gases associated with mining and processing aggregate at the site would decrease locally due to the decreased mining, processing and hauling activity (reducing direct GHG emissions). However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, combined direct and indirect GHG emissions are likely to result in similar impacts as compared to the proposed project.

Biological Resources

Under Alternative 3, the area to be mined and reclaimed under the proposed project would not substantially change from the approved project. The reclamation area boundary will increase by about 100 acres reflecting the incorporation of all areas to be reclaimed into the permit plan sheets. Reclamation in these areas is required; however, they were not included in the approved reclamation plan sheets. The proposed reclaimed lakes will be further separated from the creek corridor; however, the proposed modifications to the HRP, including identified mitigation measures, will result in improved biological outcomes, particularly north of the plant site. Impacts to biological resources generally would be similar to those that would result from the proposed project.

Cultural Resources and Tribal Cultural Resources

The proposed project does not propose mining outside mining boundaries approved in the 1996 EIR (i.e., the area to be mined is similar under the proposed project and Alternative 3). Therefore, the potential for soil disturbance and impacts to cultural resources under the Alternative 3 and the proposed project are similar.

Geology and Soils, Mineral Resources, and Paleontological Resources

Under the Alternative 3, mining operations at the site would continue until closure in 2047 and reclamation of the mining areas would occur thereafter. Reclamation of the site in 2047 would effectively preclude continued mining of a known mineral resource of value to the region. Reclamation to agriculture, habitat, and open space lake features overlying existing unmined mineral resources would effectively preclude future mining of those resources, particularly if special status species and habitat result. Failure to mine the known feasibly available resource could also result in pressures to open new mining elsewhere.

Impacts related to slope stability would be similar because reclaimed slopes would be subject to compliance with Mining Ordinance Section 10-4.431 and Reclamation Ordinance Section 10-5.504, which require slope stability analyses to demonstrate that slopes will be stable. The potential to unearth paleontological resources would be reduced because the total amount mined at the site (materials that could contain paleontological resources) would be reduced. Therefore, this alternative would result in greater impacts related to conflict with the County CCAP, but fewer impacts related to potential paleontological impacts at the project site.

Hydrology and Water Quality

Under the Alternative 3, mining operations at the site would, similar to the proposed project, be extended 20 years (from 2027 to 2047) and reclamation of the mining areas would be completed thereafter. Impacts related to hydrology and water quality (e.g., methylmercury in wet pit lakes, etc.) would be similar because the operator would be subject to compliance with all mining and reclamation ordinance requirements related to water quality protection under both Alternative 3 and the proposed project. As assessed in Impact 4.6-1, proposed changes in the configuration of the reclaimed lakes would have no substantive adverse effect on methylmercury considerations and backfilling of Phase 3-4 lakes may be beneficial in light of preliminary mercury monitoring results. Therefore, hydrology and water quality impacts under this alternative would be similar.

Noise

Under Alternative 3, mining operations would be extended to 2047 (similar to the proposed project) but the annual cap on extraction would be reduced by 50 percent. Noise generation and potential less-than-significant impacts related to noise at nearby receptors would be slightly decreased between 2027 and 2047 (due to the decreased intensity of mining activity), compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, noise associated with mining may occur elsewhere.

Transportation and Circulation

As detailed in Impact 4.8-1 of this Draft SEIR, the proposed project would extend mining and aggregate production at the site for 20 years (through 2047) and associated truck traffic could contribute to a significant VMT impact on the public roadway network. Under the Alternative 3, reduced production levels would result in reduced truck hauling trips to and from the project site, locally decreasing VMT after 2027. Therefore, this alternative would result in fewer impacts on the project site as compared to the proposed project. However, the product demand is likely to be met by another mining facility (local or out of the area). Therefore, VMT associated with mining may occur elsewhere.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an EIR identify the environmentally-superior alternative from among the range of reasonable alternatives that are evaluated. CEQA Guidelines Section 15126.6(d)(2) states that if the environmentally-superior alternative is the no project alternative, the EIR shall also identify an environmentally-superior alternative from among the other alternatives.

All four alternatives result in less site impact overall than the proposed project, with Alternatives 1A and 1B resulting in less impact than Alternative 3 and 4 comparatively. However, it is likely that similar impacts (or possibly greater) will occur regionally as demand for aggregate resources is met by another location within the CCAP area or outside of Yolo County.

Related to significant and unavoidable loss of anticipated reclaimed farmland associated with implementation of the project, Alternatives 1A, 1B, and 2 would have less project-level impact, as compared to the proposed project. Alternative 3 would have similar impacts as the proposed project.

Related to significant and unavoidable increases in VMT associated with the proposed project, all four alternatives would result in less VMT from the project site, but as noted above, all are likely to result in increased VMT associated with the demand for aggregate being met by another location within the CCAP area or outside of Yolo County. The further aggregate mining occurs from areas of demand, the greater the haul distances and the larger the increase of VMT to regional totals.

Both No Project alternatives fail to meet the objectives of the project, and neither is consistent with the CCAP, focus on fully excavating feasibly available aggregates on land approved for mining. Alternatives 2 and 3 each meet some of the project objectives but have inconsistencies with the CCAP related to maximizing resource extraction from approved mining sites, economic use of equipment and labor, and feasibility of approved reclamation.

Based on the evaluation provided above and the comparison summary included in Table 6-2 below, the No Project Alternatives (1A and 1B are similar) would be environmentally superior to the project, because either would likely reduce impacts at the site as compared to the proposed project, and more so than Alternatives 2 and/or 3. The next best ranking environmentally superior alternative would be Alternative 2, Shorter Permit Extension Alternative. This alternative would result in similar but slightly less environmental impact for those effects identified as significant and unavoidable for the project. It results in ten fewer years of impact as compared to Alternative 3 and allows for the same amount of annual tonnage as the approved operation. Both Alternatives 2 and 3 fail to meet the project objectives. Alternative 2 generally achieves four of the nine project objectives. Alternative 3 generally achieves only three.

In summary, Alternative 2 would result in reduced impacts compared to the proposed project, meet more of the project objectives than the other alternatives, and would be considered the Environmentally Superior Alternative. None of the alternatives eliminate impacts found to be significant and unavoidable for the project. Moreover, the project fully achieves all of the project

objectives and fully mitigates impacts in all other topical areas, making it superior to the alternatives.

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Table 6-2: Comparison of Impacts Between Alternatives

Impact Section	Project Impact	Proposed Project Impact - Level of Significance (after mitigation)	Alternative 1A No Project Alternative	Alternative 1B No Project Alternative, Compliance Concerns Corrected	Alternative 2 Shorter Permit Extension	Alternative 3 Limited Mining During Extended Period
Aesthetics and Visual Resources	Project level LTS impacts discussed in Chapter 4.9	LTS	<	<	<	=
Agricultural and Forestry Resources	Impact 4.1-1 Implementation of the proposed project would have the potential to 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.	SU	< (remains SU)	< (remains SU)	< (remains SU)	= (remains SU)
	Impact 4.1-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.	LTS	=	=	=	=
	Impact 4.1-3 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	=	=	=	=
	Impact 4.1-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to agricultural resources.	LTS	=	=	=	=
Air Quality, GHG, and Energy	Impact 4.2-1 The proposed project would conflict with or obstruct implementation of the applicable air quality plan.	LTS	<	<	<	<

	<p>Impact 4.2-2 The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.</p>	LTS	<	<	<	<
	<p>Impact 4.2-3 The proposed project would expose sensitive receptors to substantial pollutant concentrations.</p>	LTS	<	<	<	<
	<p>Impact 4.2-4 The proposed project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	LTS	<	<	<	<
	<p>Impact 4.2-5 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p>	LTS	<	<	<	<
	<p>Impact 4.2-6 The proposed project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p>	LTS	<	<	<	<
	<p>Impact 4.2-7 The proposed project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation.</p>	LTS	<	<	<	<
	<p>Impact 4.2-8 The proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.</p>	LTS	<	<	<	<

	<p>Impact 4.2-9 The proposed project would cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to air quality, GHG emissions, or energy.</p>	LTS	<	<	<	<
Biological Resources	<p>Impact 4.3-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.</p>	LTS	< or =	< or =	< or =	=
	<p>Impact 4.3-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</p>	LTS	<	<	<	=
	<p>Impact 4.3-3 Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	LTS	<	<	<	=
	<p>Impact 4.3-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p>	LTS	<	<	<	=
	<p>Impact 4.3-5 Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.</p>	LTS	< or =	< or =	< or =	=
	<p>Impact 4.3-6 The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce</p>	LTS	<	<	<	=

	the number or restrict the range of an endangered, rare or threatened species.					
	Impact 4.3-7 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	<	<	<	=
	Impact 4.3-8 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	=	=	=	=
Cultural Resources and Tribal Cultural Resources	Impact 4.4-1 The proposed project could cause a substantial adverse change in the significance of an historical resource pursuant to CEQA Guidelines, Section 15064.5.	LTS	=	=	=	=
	Impact 4.4-2 Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5.	LTS	=	=	=	=
	Impact 4.4-3 Disturb any human remains, including those interred outside of dedicated cemeteries.	LTS	=	=	=	=
	Impact 4.4-4 Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in	LTS	=	=	=	=

	subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.					
	Impact 4.4-5 The project has the potential to eliminate important examples of the major periods of California history or prehistory (CEQA Guidelines, Section 15065(a)(1)).	LTS	=	=	=	=
	Impact 4.4-6 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to cultural and Tribal Cultural Resources.	LTS	=	=	=	=
Geology and Soils, Mineral Resources, and Paleontological Resources	Impact 4.5-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.	LTS	=	=	=	=
	Impact 4.5-2 Result in substantial erosion or loss of topsoil.	LTS	=	=	=	=
	Impact 4.5-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTS	=	=	=	=
	Impact 4.5-4 Be located on expansive soils, as defined in Table 18-1-B of the California Building Code, creating substantial risks to life or property.	LTS	=	=	=	=

	<p>Impact 4.5-5 Directly or indirectly destroy a unique paleontological resource.</p>	LTS	<	<	<	<
	<p>Impact 4.5-6 The loss of availability of a known mineral resource that would be of value to the region and the residents of the State.</p>	LTS	>	>	>	>
	<p>Impact 4.5-7 The loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.</p>	LTS	>	>	>	>
	<p>Impact 4.5-8 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to geology and soils, mineral resources, and paleontological resources.</p>	LTS	>	>	>	>
Hydrology and Water Quality	<p>Impact 4.6-1 The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or ground water quality.</p>	LTS	=	=	=	=
	<p>Impact 4.6-2 The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.</p>	LTS	=	=	=	=
	<p>Impact 4.6-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or</p>	LTS	=	=	=	=

	impede or redirect flood flows.					
	Impact 4.6-4 In flood hazard, tsunami, or seiche zones, result in release of pollutants due to project inundation.	LTS	=	=	=	=
	Impact 4.6-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	=	=	=	=
	Impact 4.6-6 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating impacts to hydrology and water quality.	LTS	>	>	=	=
Noise	Impact 4.7-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LTS	<	<	<	<
	Impact 4.7-2 Generation of excessive groundborne vibration or groundborne noise levels.	LTS	<	<	<	<
	Impact 4.7-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.	LTS	=	=	=	=
	Impact 4.7-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating noise impacts.	LTS	=	=	=	=

Transportation and Circulation	Impact 4.8-1 Cause an increase in baseline total VMT.	SU	< (remains SU)	< (remains SU)	< (remains SU)	< (remains SU)
	Impact 4.8-2 Cause an inconsistency with applicable design standards.	LTS	=	=	=	=
	Impact 4.8-3 Cause a substantial decrease in safety.	LTS	=	=	=	=
	Impact 4.8-4 Cause a significant environmental impact due to a conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating transportation impacts.	LTS	<	<	<	<

Notes:

LTS: Less-than-Significant Impact.

SU: Significant and Unavoidable

= Impacts same as project.

< Fewer impacts (less severe) than proposed project.

> More impacts (greater) than proposed project.

7 REPORT PREPARATION

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