OCTOBER 2019







DRAFT ENVIRONMENTAL IMPACT REPORT

Yolo County Cannabis Land Use Ordinance

SCH number: 2018082055

PREPARED FOR:
Yolo County Department
of Community Services

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NOTICE OF AVAILABILITY AND SPECIAL PUBLIC MEETING for the
DRAFT ENVIRONMENTAL IMPACT REPORT on the
PROPOSED CANNABIS LAND USE ORDINANCE (CLUO) for YOLO COUNTY

DATE: October 25, 2019
TO: Interested Agencies and Individuals
FROM: Yolo County Department of Community Services

The Draft Environmental Impact Report (DEIR) (SCH #2018082955) for the Proposed Cannabis Land Use Ordinance (CLUO) is now available for review. The public is invited to comment on this document for a 60-day period extending from Friday, October 25, 2019 to Monday, December 23, 2019 at 4:00 pm. A special public meeting before the Planning Commission will be held on Tuesday, December 3, 2019 at 8:30 am. More information is provided below.

Yolo County (County) is the Lead Agency for the preparation and review of the DEIR for the Yolo County Cannabis Land Use Ordinance (Proposed Ordinance or CLUO). The Proposed Ordinance will apply to all unincorporated areas of the County. The County currently regulates the cultivation of cannabis under the Marijuana Cultivation Ordinance codified in Chapter 20 of Title 5 of the Yolo County Code. The Marijuana Cultivation Ordinance includes standards for setbacks, compliance with State regulations, surety bonding, lighting restrictions for mixed-light cultivation, and implementation and enforcement provisions. The approval process for cannabis cultivation licenses is currently ministerial with no public notification or hearing process. Cannabis cultivation licenses are required to be renewed annually.

The County proposes to amend the County General Plan and County Code to continue to regulate, and potentially reduce or expand, allowed cannabis activities in the unincorporated area of the County. The County is considering five alternative variations to the proposed CLUO, all of which rely on the same underlying regulatory requirements that would regulate cannabis activities through land use, zoning, and development standards. The alternatives vary based on allowed cannabis license types, assumed numbers of operations, allowed location based on zoning, controls on overconcentration, and required buffers from identified sensitive uses. The alternatives are:

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative) – 78 licenses

Alternative 2: All License Types with Moderate Limits – 132 licenses

Alternative 3: All License Types with High Limits – 264 licenses

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types – 132 licenses

Alternative 5: All License Types with Moderate Limits, Within Agricultural Zones Only, No Retail – 130 licenses

Adoption of the proposed CLUO will require the following actions by the County:

- Certification of the Final EIR (FEIR) for the CLUO
- Adoption of a General Plan Amendment for revisions to the text of Policy LU-1.1 and Table LU-4, modification of Policies LU-2.3 and AG-1.3, and inclusion of a new Policies LU 1.4 and AG-3.21
- Adoption of the CLUO adding Article 14 (Cannabis Land Use Ordinance) to Chapter 2 (Zoning Regulations) of Title 8 of the Yolo County Code
- Adoption of amendments to other sections of the County Code to comport to the CLUO

The County and its consultant, Ascent Environmental, Inc. have prepared a DEIR pursuant to the California Environmental Quality Act (CEQA). A Final EIR (Response to Comments) will be prepared following public review and comment. The County will consider this information when deliberating adoption of the CLUO. Following certification of the Final EIR and adoption of the CLUO, subsequent proposed cannabis use permit projects may rely on the EIR for CEQA compliance and/or tiering.

The DEIR analyzes impacts in the areas of Aesthetics, Agricultural Resources, Air Quality and Odors, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services and Recreation, Transportation and Circulation, Utilities and Service Systems, Cumulative Impacts, and Other CEQA-Required Analysis. Significant impacts are identified in the following areas: aesthetics, air quality and odors, biological resources, greenhouse gas emissions and climate change, hydrology and water quality, noise, cumulative effects, and overconcentration.

The DEIR and all documents incorporated by reference are now available for public review at the following website: https://www.yolocounty.org/community-services/cannabis-3398

Electronic copies of the document may be requested free of charge. Printed copies of the document may be requested for a fee to cover the cost of copying. Printed copies of the document are also available for public review at the public counter at the address provided below. Printed or electronic copies of the document are also provided at all Yolo County libraries including the Woodland Public Library at 250 First Street, Woodland, CA 95695. Please contact Susan Strachan (using the contact information provided below) for more information.

You may submit comments on the DEIR during the 60-day public review period which begins Friday, October 25, 2019 and ends Monday, December 23, 2019 at 4:00 pm. All comments on the DEIR must be received by the Yolo County Department of Community Services by 4:00 pm on December 23, 2019 in order to be considered. Comments may be sent by postal service, electronic mail, hand delivery, or provided verbally at the Yolo County Planning Commission special public meeting on December 3, 2019. Pursuant to Section 15088(a) of the CEQA Guidelines, late comments will be considered only at the County's discretion. Comments must be directed to:

Susan Strachan, Cannabis Program Manager
Yolo County Department of Community Services
292 West Beamer Street
Woodland, CA 95695
(530) 406-4800
cannabis@yolocounty.org.

A special public meeting before the Planning Commission will be held on Tuesday, December 3, 2019 at 8:30 am in the Board of Supervisors Chambers (Room 206) at 625 Court Street, Woodland, CA to accept oral comments on the DEIR. There will be no transcription of oral comments at this meeting. Comments received will be summarized by staff for inclusion in the Final EIR. Those who wish to have their verbatim comments incorporated in the Final EIR must submit their comments in writing.

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in these hearings, 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.

In compliance with CEQA Guidelines Section 15087(c)(6) the lists specified under Government Code Section 65962.5.5 related to hazardous waste conditions include a total of 39 known hazardous material and contamination sites in the County (see Exhibit 3.9-1 of the DEIR).

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 hearing or described in written correspondence delivered for consideration before the hearing is closed.

For more specific questions about the project, please contact Susan Strachan using the contact information provided above.

Draft Environmental Impact Report
for the

Yolo County Cannabis Land Use Ordinance

State Clearinghouse No. 2018082055

PREPARED FOR

Yolo County
Department of Community Services
292 W. Beamer Street
Woodland, CA 95695

Susan Strachan, Cannabis Program Manager
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PREPARED BY

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Pat Angell
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October, 2019

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LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ACE	Affordable Clean Energy
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
BMP	best management practice
Board	Yolo County Board of Supervisors
BPTC	best practical treatment or control
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
cannabis	marijuana
CAP	Climate Action Plan
CARB	California Air Resources Board
CBD	cannabidiol
CCAA	California Clean Air Act
CCAP	Cache Creek Area Plan
CCIP	Cache Creek Improvement Program
CCR	California Code of Regulations
CCRMP	Cache Creek Resources Management Plan
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CDPR	California Department of Pesticide Regulation

CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CGC	County Government Code
CH_4	methane
CHL	California Historical Landmark
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CLUO	Cannabis Land Use Ordinance
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Process
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
Coalition	Sacramento Valley Water Quality Coalition
County	Yolo County
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSD	community services district
CTR	California Toxics Rule
CUP	conditional use permit
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	decibels
DDT	dichlorodiphenyltrichloroethane
Delta	Sacramento–San Joaquin River Delta
diesel PM	exhaust from diesel engines
District	Sacramento-Yolo Mosquito Vector Control District
DOC	California Department of Conservation
DOT	U.S. Department of Transportation
Draft EIR	draft environmental impact report

D/T	Dilution-to-Threshold
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
DWSC	Deep Water Ship Channel
EAD	Exposure Assessment Document
EAP	Energy Action Plan Update
ECA	Essential Connectivity Areas
EGU	electric generating units
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EMS	emergency medical services
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
ESA	Environmental Site Assessment
ESU	evolutionarily significant unit
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPD	fire protection district
FSZ	Farmland Security Zone
GCI	Green Coast Industries
GHG	greenhouse gas
gpm	gallon-per-minute
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
HAP	hazardous air pollutants
HCP	Habitat Conservation Plan
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HMIS	Hazardous Materials Inventory Statement
HMMP	Hazardous Materials Management Plan
Hot Spots Act	Air Toxics Hot Spots Information and Assessment Act of 1987
HRI	heat rate improvement
Hz	hertz

I-	Interstate
IEPR	Integrated Energy Policy Reports
LAFCo	Local Agency Formation Commission
lb	pounds
LCC	Land Capability Classification
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Level
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent Continuous Sound Level
LID	low impact development
L_{max}	Maximum Sound Level
LOS	level of service
LRA	Local Responsibility Area
LSA Agreement	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mg/L	milligrams per liter
mPa	micro-Pascals
MS4	Municipal Separate Storm Sewer System
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NCCPA	Natural Community Conservation Planning Act
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide

NOP	Notice of Preparation
NO_X	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NPPA	California Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTR	National Toxics Rule
OAV	odor activity value
OCP	Odor Control Plan
OPR	California Governor's Office of Planning and Research
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OWTS	on-site wastewater treatment systems
ozone	photochemical smog
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM_{10}	respirable particulate matter
$PM_{2.5}$	Fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	part per billion
PPV	peak particle velocity
PRC	Public Resources Code
Proposed Ordinance or CLUO	Yolo County proposed Cannabis Land Use Ordinance
RCD	risk characterization document
RCP	Representative Concentration Pathway
RCRA	Resource Conservation and Recovery Act
RMS	root-mean-square
ROG	reactive organic gases
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SAF Plan	State Alternative Fuels Plan
SB	Senate Bill
SECP	sediment and erosion control plan

SEMS	Standard Emergency Management System
SIP	State Implementation Plan
SIUR	Small Irrigation Use Registration
SO_2	sulfur dioxide
SPL	sound pressure level
sq. ft.	square feet
SR	State Route
SRA	State Responsibility Area
STIP	California Statewide Transportation Improvement Program
SVAB	Sacramento Valley Air Basin
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	traffic analysis zone
TCR	transportation concept report
THC	tetrahydrocannabinol
TIA	traffic impact analysis
TIS Guidelines	Yolo County Transportation Impact Study Guidelines
TMDL	total maximum daily load
TRI	Toxic Release Inventory
UAIC	United Auburn Indian Community
UC	University of California
UC Davis	University of California, Davis
UFSWS	U.S. Fish and Wildlife Service
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VCE	Valley Clean Energy
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	Waste Discharge Requirement
WSFD	West Sacramento Fire Department
WWTF	wastewater treatment facility

YCC	Yolo County Creative
YCEHD	Yolo County Environmental Health Division
YCFCWCD	Yolo County Flood Control and Water Conservation District
YCTD	Yolo County Transportation District
Yolo County Code	Yolo County Code of Ordinances
Yolo ILP	Yolo County Farm Bureau Irrigated Lands Program
YSAQMD	Yolo-Solano Air Quality Management District

EXECUTIVE SUMMARY

INTRODUCTION

This summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) (California Code of Regulations [CCR] Section 15123). As stated in the State CEQA Guidelines (CCR Section 15123[a]), "[a]n EIR [environmental impact report] shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the State CEQA Guidelines, this section includes (1) a summary description of the proposed project; (2) a synopsis of environmental impacts and recommended mitigation measures; (3) identification of the alternatives evaluated and of the environmentally superior alternative; (4) a discussion of the areas of controversy associated with the project; and (5) issues to be resolved, including the choice among alternatives.

SUMMARY DESCRIPTION OF THE PROJECT

Location

Yolo County is located in the northern part of the Central Valley of California and is bounded by Sacramento, Sutter, Colusa, Lake, Napa, and Solano Counties. The County consists of approximately 653,550 acres, which includes four incorporated cities totaling approximately 32,300 acres. The four incorporated cities are Davis, West Sacramento, Winters, and Woodland. In addition to the incorporated cities, land owned by state and federal agencies, tribal trust land held on behalf of the Yocha Dehe Wintun Nation, and the University of California, Davis, campus have independent land use decision-making authority and are generally not under the jurisdiction of Yolo County. There are 11 unincorporated towns in the County: Capay, Guinda, Rumsey, Clarksburg, Dunnigan, Esparto, Knights Landing, Madison, Monument Hills, Yolo, and Zamora. These unincorporated towns are under the jurisdiction of the County. Aside from the small unincorporated communities, the unincorporated area of the County is generally rural and composed primarily of agricultural land uses.

Existing Yolo County Cannabis Regulations

On March 22, 2016, in response to the Medical Marijuana Regulation and Safety Act and to effect greater local control, the Yolo County Board of Supervisors (Board) adopted Ordinance Number 1467 adding Chapter 20 to Title 5 of the Yolo County Code regulating medical cannabis cultivation in Yolo County. The Board structured this ordinance as an interim measure to limit harmful environmental impacts while protecting patient access to medical cannabis. This "interim ordinance" would be in effect while state and County staff developed more comprehensive regulatory programs. The interim ordinance, since renamed the Marijuana Cultivation Ordinance, has been amended several times since it was first enacted. For a description of those amendment please see Section 2.3.3 of Chapter 2.0, "Description of Preferred Alternative and Equal Weight Alternatives." There are 78 operations in the County authorized for commercial cannabis cultivation under the Interim Ordinance.

Proposed Cannabis Land Use Ordinance

The Yolo County–proposed Cannabis Land Use Ordinance (CLUO) would add Article 14 to Title 8, Chapter 2, of the Zoning Regulations within the Yolo County Code. It would regulate all cannabis operations within the unincorporated area of the County. Specific land use requirements and development performance standards are included in the CLUO that address, among many topics, a range of social and environmental issues. The Revised Public Review Draft CLUO is provided in Appendix C.

The discussion below summarizes the Revised Public Review Draft CLUO. These standards, except when noted, would apply to all the alternatives included in this EIR. Table 2-5 in Chapter 2 identifies what cannabis uses are allowed in the County's zoning districts.

Section 8-2.1401, Relationship to Other County Cannabis Regulations: This section identifies other Yolo County Code sections that contain regulations specific to cannabis activities.

Section 8-2.1402, Purpose: This section elaborates on the purpose of the regulations. It establishes County intent in implementing the code. It describes the primary policy concerns and how they are to be balanced.

Section 8-2.1403, Definitions: This section provides definitions for various terms. Work on this section is ongoing. The definitions are guided by, and intended to be consistent with, the draft ordinance and would therefore result in no change to the environmental impact analysis presented herein. Unless otherwise defined, the County accepts the state definitions of various terms related to cannabis and cannabis activities.

Section 8-2.1404, Applicability: This section addresses various aspects of how the CLUO will be applied and provides compliance timeframes for the 78 existing and eligible licensees under the County's existing cannabis program. On June 26, 2018, the Board of Supervisors directed staff to integrate adult use (nonmedical or recreational) into the current and proposed cannabis regulations. Therefore, the assumptions regarding medical-only as compared to adult use that were originally to be explored through the alternatives (Section 8-2.1404[H]) are no longer relevant. Yolo County no longer prohibits adult cannabis use.

Section 8-2.1405, Cannabis Use Categories and Use Types: This section identifies each of the state license use types and categorizes them for purposes of the draft CLUO. Generally, the use types are as defined in state law. Section 8-2.1405 (A through E), related to various cannabis use categories and use types, will be modified in the different EIR alternatives. Alternative 1 assumes cultivation only, with ancillary nurseries and processing allowed. Alternatives 2 and 3 assume all use types (except special events). Alternative 4 assumes outdoor uses are prohibited. Alternative 5 assumes the same use types as Alternatives 2 and 3 restricted to agricultural zones and with the exclusion of retail.

Section 8-2.1406, Cannabis Permit Requirements: This section clarifies the various license and permit requirements. Among other things, it authorizes an administrative process for placing limits on the number of license and permits issued. It also establishes controls on overconcentration. In general, a cannabis operation must have the appropriate state cannabis license(s), a County cannabis license, a County business license (this requirement does not apply to cultivators, nurseries, or processing-only license holders), and a County cannabis use permit. The number of state licenses an individual or business can hold is dictated by state law. The number of separate County cannabis licenses and use permits a person or business can hold may be established in future administrative procedures to be adopted by the County. If such limits are enacted later, they would serve to further minimize environmental impacts identified in this EIR.

Section 8-2.1406(h) addresses possible future regulation of the number of cannabis activities within a geographic area of the County to address concerns of overconcentration. This subsection establishes that the County may choose to enact such controls at any time, identifies the use of the comment areas of the County's citizen advisory committees as possible subregions for such regulation, identifies the use of population and density as possible considerations, and establishes that effects on the illegal market should be among the factors considered when making decisions regarding specific cannabis use permit

applications. Whether and how overconcentration will be regulated has yet to be decided. CEQA Alternatives 2, 3, and 4 assume controls for overconcentration, but as noted the specific mechanism and procedure for that to occur has not been developed. Chapter 4, "Cumulative Impacts and Overconcentration," contains an analysis of overconcentration and includes mitigation to address identified effects from concentrations or clusters of cannabis uses in particular geographic areas.

For the purposes of this EIR, the maximum numbers of assumed cannabis/operations by type are as defined for each alternative. Alternative 1 assumes 78 cannabis uses, Alternatives 2 and 4 assume up to 132 cannabis uses, Alternative 3 assumes 264 cannabis uses, and Alternative 5 assumes 130 cannabis uses.

This section also identifies findings for approval and denial of Cannabis Use Permits. These findings are based generally on County use permit findings identified in Section 8-2.217 (Use Permits) of the current County Zoning Regulations. These findings require consistency with the contents and requirements of the ordinance under review in this EIR and will have no potential to result in new or different impacts.

Section 8-2.1407, Table of Cannabis Development Requirements: This section identifies in table format which use types are allowed in which zone districts, as well as other applicable development requirements, such as maximum canopy area and buffers from sensitive uses. In the final approved CLUO, this table will be modified to reflect the alternative approved by the Board of Supervisors including allowed use types and allowed zones. Alternative 1 assumes a 75-foot buffer between outdoor cannabis uses and individual residences and a 1,000-foot buffer between outdoor cannabis uses and identified sensitive uses. Alternatives 2 and 5 assume a 1,000-foot buffer between outdoor cannabis uses and individual residences and identified special uses. Alternative 3 assumes a 75-foot buffer between outdoor cannabis uses and individual residences and identified special uses. Alternative 4 assumes no buffers as outdoor cannabis uses are not allowed. As described in the table, these buffers do not apply to indoor and mixed light operations.

Section 8-2.1408, Specific Use Requirements and Performance Standards: This section provides specific requirements and performance standards to regulate operations for all cannabis use types. A summary of items under this section is included in Chapter 2, "Description of the Preferred Alternative and Equal Weight Alternatives."

Section 8-2.1409, Special Cannabis Restrictions and Concerns: This section identifies and discloses restrictions and concerns unique to cannabis, including the current federal framework, the potential for changes in the regulatory environmental at all levels, and limitations on County liability.

Section 8-2.1410, Application Submittal and Processing: This section identifies information required for the cannabis use permit application specific to the proposed site and operation. It establishes general code compliance requirements and identifies use permit requirements specific to cannabis applications. It also discloses the intent to achieve project-specific CEQA coverage from the programmatic EIR by utilizing available CEQA streamlining opportunities.

Section 8-2.1411, Reporting and Inspections: This section identifies annual reporting and inspection requirements, and describes how that information will be presented to the Planning Commission and Board of Supervisors.

Section 8-2.1412, Enforcement: This section describes the enforcement process and related topics, including abatement, penalties, procedures for suspension and/or revocation, enforcement, and other matters. This subsection identifies procedures for suspension or revocation of Cannabis Use Permits. Additional text describing the enforcement process may be considered by the County later in the review process. If it is considered, it would serve solely to clarify the enforcement process and would not result in changes to the EIR analysis.

Section 8-2.1413, Effectiveness. This section identifies a required evaluation of the effectiveness of the ordinance after 2 years of implementation.

Because the Yolo County 2030 Countywide General Plan, adopted in 2009, did not anticipate cannabis as a legal commercial crop, the project includes amendments to the County General Plan to establish a policy base for cannabis land use regulation.

PROJECT OBJECTIVES

The primary objectives of the CLUO are identified in Section 8-2.1402 of the Draft CLUO as follows:

A. Protect the public health, safety, and welfare.

B. Protect environmental resources and minimize environmental impact.

C. Ensure neighborhood compatibility.

D. Ensure safe access to medical cannabis for patients.

E. Support agricultural economic development including recognition of valuable new crops, preservation of agricultural land, and creation of opportunities for new farmers.

F. Recognize cannabis as an agricultural crop with unique challenges including Federal classification, legal history, crop value, transaction security, distinct odor, and energy and water requirements.

G. Recognize competing and evolving community values and interests related to the cannabis industry.

H. Avoid establishing undesirable precedents for other agricultural sectors.

I. Avoid unintended consequences including unforeseen community impacts and over-regulation that drives cannabis activities underground.

J. Allow for adaptation to changing market, cultural, and regulatory considerations over time.

K. Acknowledge the will of the voters in passing Proposition 64, Marijuana Legalization, in 2016.

EQUAL WEIGHT CANNABIS LAND USE ORDINANCE ALTERNATIVES

The County has identified five alternative variations to the CLUO for review in this document, recognizing that the final CLUO may combine elements of more than one alternative. Each alternative reviewed in this document relies on the same underlying framework that would regulate cannabis activities through land use, zoning, and development standards. The alternatives vary by the assumed type of cannabis license/activity, limits on the number of operations, and performance standards. The County has identified Alternative 1 as the CEQA preferred alternative. These five alternatives are evaluated at an equal level of detail and are summarized below.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 assumes that existing personal use and commercial cannabis cultivation (including on-site nurseries and processing that provide support to the cultivation operation) would continue to operate but under the requirements of the new CLUO, in addition to the existing County licensing ordinance, rather than solely under the provisions of the existing licensing ordinance. There are currently 78 existing and eligible cultivators in the County. This alternative assumes 78 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 78 operations

This alternative includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences, and 1,000-foot buffers between outdoor cannabis uses and the following uses: residentially designated lands, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely. Under this Alternative, implementation of the CLUO could result in relocation of nine existing and eligible cultivation sites to meet the assumed buffering and zoning requirements.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes that all types of cannabis uses would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

Alternative 2 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions, for example, within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 1,000-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely. Under this Alternative, implementation of the CLUO would require relocation of 30 existing and eligible cultivation sites to meet the assumed buffering and zoning requirements.

Alternative 3: All License Types with High Limits

Alternative 3 assumes that all types of cannabis uses would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusiness. As defined, implementation of this alternative would result in 264 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 160 (includes 78 operations from Alternative 1)
- nurseries: 10
- processing: 10
- manufacturing: 4
- testing: 10
- distribution: 20
- retail: 4
- microbusiness: 100

Alternative 3 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions for example within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 75-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely. Under this alternative, implementation of the CLUO could require relocation of nine existing and eligible cultivation sites to meet the assumed buffering and zoning requirements.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes that personal cultivation, commercial cannabis cultivation, nurseries, processing, and microbusinesses would be limited to indoor and mixed-light operations within a structure. It is assumed that 75 of the existing and eligible cannabis cultivation sites with outdoor cultivation would convert entirely to indoor or mixed-light cultivation in greenhouses or indoor buildings. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal (indoor only): unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

Alternative 4 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions (for example, within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). Under this alternative, implementation of the CLUO could require relocation of nine existing and eligible cultivation sites to meet the assumed zoning requirements. Because no outdoor cannabis activities are allowed under this alternative, it does not include buffers from identified sensitive land uses.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes for all license types, with the exception of retail, but would limit commercial cannabis (including personal outdoor grows) to agricultural zone districts. Personal indoor grows would be allowed in all zoning districts. As defined, implementation of this alternative would result in 130 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- microbusiness: 5

This alternative includes 1,000-foot buffers between outdoor cannabis uses and the following uses: occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Under this alternative, implementation of the CLUO would require relocation of 30 existing and eligible cultivation sites to meet the assumed buffering and zoning requirements. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as that would have the unintended effect of prohibiting such use entirely.

SCOPE OF EIR

This is a Program EIR, which is defined in State CEQA Guidelines Section 15168 as an EIR addressing:

> [A] series of actions that can be characterized as one large project and are related either:
>
> (1) Geographically;
>
> (2) As logical parts in the chain of contemplated actions;
>
> (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or
>
> (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways.

A Program EIR has several benefits. For example, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. It also allows the lead agency to consider the broad, regional impacts of a program of actions before its adoption and eliminates redundant or contradictory approaches to the consideration of regional and cumulative impacts.

INTENDED USE OF THIS EIR

CEQA requires that public agencies consider the significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (Public Resources Code [PRC] Section 21000 et seq.). It also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, significant adverse environmental effects of projects it approves or implements. If implementing a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can still be approved, but the lead agency decision maker—in this case, the Yolo County Board of Supervisors (Board)—must prepare findings and issue a "statement of overriding considerations," explaining in writing the specific economic, social, or other considerations that they have determined, based on substantial evidence, make those significant effects acceptable (PRC Section 21002, CCR Section 15093).

According to State CEQA Guidelines Section 15064(f)(1), preparation of an EIR is required whenever a project may result in a significant adverse environmental impact that cannot be clearly mitigated to a less-than-significant level. As required by CEQA, an EIR is used to inform public agency decision makers and the public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

In compliance with CEQA, this EIR discloses the environmental consequences of implementing the CLUO, assuming five alternative regulatory scenarios. This EIR is designed to fully inform the County decision makers, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of implementing the CLUO. Upon certification of the Final EIR, the Yolo County Board of Supervisors will use the analysis in this EIR to support a decision to adopt the proposed General Plan amendment and CLUO.

As encouraged under CEQA, the County intends to use this Program EIR prepared for the CLUO to streamline the environmental review and consideration of future cannabis operation applications. The County plans to make use of the streamlining provided by CEQA, as applicable. Subsequent to adoption of the CLUO, applicants will apply for Cannabis Use Permits pursuant to the new regulations. Individual applications for commercial cannabis operations under the ordinance will be subject to further site-specific environmental review as applicable under CEQA pursuant to State CEQA Guidelines Section 15168(c), Use with Later Activities. This section of the guidelines addresses environmental review of projects intended to be addressed in a program for which an EIR was prepared. The County may determine that the environmental impacts of an individual project are adequately addressed in the EIR and that no further environmental review is required, or it may determine that additional environmental review is required or could require focused environmental review. Preparation of a site-specific environmental review document would be required if the County determines that the individual project would cause a significant environmental impact that was not examined in the EIR or would substantially increase the severity of a previously identified significant impact under State CEQA Guidelines Sections 15162 and 15168(c). This Program EIR may also be used and/or relied upon by the California Department of Food and Agriculture for its licensing actions.

Under PRC Section 21083.3 and State CEQA Guidelines Section 15183, lead agencies can use EIRs prepared for zoning actions (such as this ordinance) to analyze the impacts of proposed cannabis projects that may be approved pursuant to the ordinance, and limit later project-level analysis to only site-specific issues not already examined (if any). Under the above-referenced code sections, CEQA analysis for later projects will be limited to issues "peculiar" to the site or new environmental concerns not previously addressed. State CEQA Guidelines Section 15183(f) provides that impacts are not "peculiar" to the project if uniformly applied development policies or standards substantially mitigate that environmental effect. Upon adoption, the CLUO will meet the definition of a uniformly adopted standard, and compliance with the CLUO will allow for CEQA streamlining to be used.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to State CEQA Guidelines Section 15382, a significant effect on the environment is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." Sections 3.1 through 3.15 of this Draft EIR describe in detail the significant environmental impacts that would result from implementing the CLUO under each of the five alternatives. Chapters 4 provides additional analysis of cumulative effects for each area of impact and a detailed assessment of impacts that may occur as a result of overconcentration within identified geographic areas. Chapter 6 provides a discussion of growth-inducing impacts and other sections required by CEQA. Table ES-1 summarizes the environmental impacts and mitigation measures discussed in these sections.

SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project level impacts) and Chapter 4, "Cumulative Impacts and Overconcentration," of this Draft EIR, after implementation of the CLUO performance standards and identified mitigation measures, implementation of the CLUO would result in the following significant and avoidable impacts:

- Impact AES-3: Substantially Degrade the Existing Visual Character or Quality of the Project Area (all alternatives)
- Impact AQ-4: Expose a Substantial Number of People to Adverse Odors (all alternatives)
- Impact CUM-1: Cumulative Visual Character Impacts (all alternatives)
- Impact CUM-3: Cumulative Odor Impacts (all alternatives)
- Impact OVC-1: Visual Character Impacts from Overconcentration of Cannabis Uses (all alternatives)
- Impact OVC-3: Odor Impacts from Overconcentration of Cannabis Uses (all alternatives)

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines Section 15126.6 requires that an EIR identify the environmentally superior alternative among the alternatives analyzed. Section 15126.6(e)(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 analyzed.

In addition to the five CLUO alternatives, Chapter 5, "Alternatives," evaluates the No Project – No Cannabis Land Use Ordinance Alternative to allow a comparison of the environmental impacts of approving the CLUO under each of its five alternatives with the effects of not approving it. The No Project – No Cannabis Land Use Ordinance is similar to Alternative 1 as it would consist of the 78 cannabis cultivation sites that are currently allowed to cultivate in the County. However, the No Project-No Cannabis Land Use Ordinance Alternative would not include the adoption of the proposed CLUO and the cultivation operations would continue to operate under the existing licensing program under Yolo County Code Title 5, Chapter 20 (Marijuana Cultivation Ordinance).

As discussed in Chapter 5, "Alternatives," Alternative 1 would be the environmentally superior alternative under unmitigated conditions. Under mitigated conditions, Alternatives 1, 2, 4, and 5 are relatively equivalent and individually environmentally superior when compared to the No Project – No CLUO Alternative and Alternative 3.

AREAS OF CONTROVERSY

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify areas of controversy known to the lead agency, including issues raised by agencies and the public. Areas of controversy associated with the project are:

- whether cannabis uses and activities should be allowed in unincorporated Yolo County;
- whether noncultivation cannabis activities should be allowed;
- whether existing allowed cannabis cultivation should be allowed to expand;
- interplay of non-cannabis agriculture and cannabis agriculture;
- whether cannabis is an agricultural land use;
- odor impacts from cannabis uses and activities;
- impacts in all environmental issue areas from cannabis uses and activities;
- impacts of overconcentration of cannabis uses in particular areas;
- social, economic, and safety/crime impacts of cannabis uses and activities; and
- concerns about the adequacy of the proposed buffers from sensitive land uses or receptors.

The Draft EIR addresses these issues to the extent that substantial evidence permits, and to the extent that the issues are environmental issues. It does not address impacts that are speculative and not reasonably foreseeable; it does not address issues that fall outside the scope of CEQA including most social and economic issues.

ISSUES TO BE RESOLVED

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved related to the proposed project. Issues to be resolved by the County are identified below, including issues that will not necessarily be resolved through the EIR:

- Should the proposed CLUO be adopted?
- Which project alternative (or combination) should be adopted?
- What level of density/intensity of cannabis uses and activities (license types) are appropriate and where?
- What buffers are most appropriate and from what uses?
- How and where should overconcentration be applied?

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
3.1 Aesthetics			
Impact AES-1: Have a Substantial Adverse Effect on a Scenic Vista or Viewshed	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AES-2: Damage Scenic Resources Including, But Not Limited to, Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway or County-Designated Scenic Roadway	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AES-3: Substantially Degrade the Existing Visual Character or Quality of the Project Area	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	None available.	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU
Impact AES -4: Create a New Source of Substantial Light or Glare That Would Adversely Affect Day or Nighttime Views	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.2 Agricultural Resources			
Impact AG-1: Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), or Farmland of Local Importance	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI
Impact AG-2: Conflict with Existing Agricultural Zoning or with a Williamson Act Contract	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact AG-3: Create Conflicts with Agricultural Uses or Conversion of Farmland to Nonagricultural Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AG-4: Conflict with Yolo County General Plan and Community Policies Related to Agricultural Resources	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.3 Air Quality and Odors			
Impact AQ-1: Conflict with or Obstruct Implementation of Policies and Regulations Related to the Air Quality	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AQ-2: Generate Construction-Related Emissions of Criteria Pollutants and Precursors That Exceed YSAQMD-Recommended Thresholds	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AQ-3: Create Long-Term Operational Emissions of Criteria Pollutants and Precursors That Exceed YSAQMD-Recommended Thresholds	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact AQ-4: Expose a Substantial Number of People to Adverse Odors	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure AQ-4: Conduct Wind Pattern Evaluations to Evaluate Odor Control (Alternatives 1, 2, 3, 4, and 5)** The following shall be included as a new performance standard in Section 8-2.1408 (DD) of the CLUO: • As part of the cannabis use permit process, County staff shall conduct a wind pattern evaluation of each cannabis use application. This evaluation	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		will utilize wind roses (a circular display of the frequency of wind coming from specific directions over a specified period of time). The wind pattern evaluation will identify receptors (as defined in Section 8.2-1408 [E]) located downwind of a proposed cannabis use and potentially affected by nuisance odor for a predominant period of time based on the wind frequency. This will provide staff with additional information for consideration when evaluating a cannabis use permit application.	
3.4 Biological Resources			
Impact BIO-1: Adversely Affect Special-Status Species	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure BIO-1: Conduct Preapproval Reconnaissance-Level Surveys for Biological Resources, Participate in the Yolo HCP/NCCP (including payment of fees and implementation of AMMs), and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)** Expand the requirements of Section 8-2.1408(D) of the CLUO to include the following: Reconnaissance-Level Survey Permittees shall include a reconnaissance-level survey for biological resources conducted on the parcel of the cannabis use by a qualified biologist (i.e., familiar with wildlife, plants, and habitats in Yolo County). The reconnaissance-level survey shall include the following elements: • Prior to the reconnaissance-level survey, the qualified biologist shall conduct a data review to determine the special-status plant, special-status wildlife, sensitive habitats (e.g., federally-protected wetlands, waters of the state, riparian habitat, sensitive natural communities) that have the potential to occur within the proposed activity footprint of the cannabis use. This will include review of the best available, current data including vegetation mapping data, the Yolo HCP/NCCP, and database searches of the CNDDB and the CNPS Inventory of Rare and Endangered Plants of California. • The qualified biologist shall map land cover, identify natural communities, and assess the habitat suitability of the proposed activity footprint of the cannabis use for special-status plants, special-status wildlife, and sensitive habitats identified as having potential to occur, consistent with the requirements of the Yolo HCP/NCCP for species covered by the plan, and consistent with Term 10 under Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ, if applicable.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		• The biologist shall provide a letter report to the applicant and the County with evidence to support a conclusion as to whether special-status species and sensitive habitats are present or are likely to occur within the proposed activity footprint of the cannabis use. • If the reconnaissance-level survey identifies no potential for special-status plants, special-status wildlife, or sensitive habitats to occur, the applicant will not be subject to additional biological resources protection measures. • If special-status plants, special-status wildlife, suitable habitat for these species, or sensitive habitats are identified within or adjacent to the proposed activity footprint of the cannabis use, then the following measures would apply. <u>Species Covered under the Yolo HCP/NCCP</u> If species covered under the Yolo HCP/NCCP are determined to be present or likely to be present within the proposed activity footprint of the cannabis use, the applicant shall assume presence of these species and satisfy the requirements of the HCP/NCCP. • If species covered under the Yolo HCP/NCCP that are not listed under CESA or ESA or are only listed under CESA could occur within the proposed activity footprint of the cannabis use, payment of HCP/NCCP mitigation fees and implementation of applicable HCP/NCCP avoidance and minimization measures are required • If species covered under the Yolo HCP/NCCP that are also listed under both CESA and ESA or only under ESA could occur within the proposed activity footprint of the cannabis use, the applicant must avoid impacts by implementing no-disturbance buffers or redesigning the project until such time as federal permits, authorizations, and procedures/protocols under the HCP portion of the HCP/NCCP can be applied. <u>Special-Status Species Not Covered under the Yolo HCP/NCCP</u> If species not covered under the Yolo HCP/NCCP are determined to be present or likely to be present within the proposed activity footprint of the cannabis use, the applicant shall apply biological resource protection measures consistent with state and local requirements as described below: • If CDFW Species of Special Concern, species listed only under CESA, nesting raptors and native birds protected under California Fish and Game Code, or plants considered by CDFW to be "rare, threatened, or endangered	

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		in California" could occur within the proposed activity footprint of the cannabis use, the applicant will retain a qualified biologist to conduct protocol-level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018b], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special-status species, then the qualified biologist will consult with CDFW or USFWS to determine the survey protocol. • If CDFW Species of Special Concern, species listed only under CESA, or plants considered by CDFW to be "rare, threatened, or endangered in California" are identified within the proposed activity footprint of the cannabis use during protocol-level surveys, then these species will be avoided by implementing no-disturbance buffers or redesigning the project, if feasible. • If avoidance of CDFW Species of Special Concern, species listed only under CESA, or plants considered by CDFW to be "rare, threatened, or endangered in California" is not feasible, then the applicant will consult with CDFW to determine applicable, established minimization measures for the given species, and will implement these measures. If impacts on species listed under CESA are unavoidable, then the applicant will submit an incidental take permit application to CDFW and receive take authorization before commencing development of the proposed activity footprint of the cannabis use. Conditions of incidental take authorization may include minimization measures to reduce impacts, and compensation for loss of the species including but not limited to purchasing credits from a CDFW-approved mitigation bank. • If species listed under both CESA and ESA or only under ESA could occur within the proposed activity footprint of the cannabis use, the applicant must avoid impacts by implementing no-disturbance buffers or redesigning the project until such time as federal permits, authorizations, and procedures/protocols can be applied. <u>Sensitive Habitats</u> If sensitive habitats, including federally-protected wetlands, waters of the state, riparian habitat, or sensitive natural communities (e.g., elderberry savanna, valley oak	

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		woodland) are identified within the proposed activity footprint of the cannabis use, these habitats will be avoided by implementing no-disturbance buffers as required by the SWRCB and the Yolo HCP/NCCP, such that the habitat is completely protected from direct and indirect adverse effects of project development. All ground disturbance, vegetation removal, and staging activities will be prohibited within this no-disturbance buffer, which may require project redesign. • A delineation of waters of the United States, including identification of hydrology, hydric soils, and hydrophytic vegetation, by a qualified biologist may be required to identify the exact extent of wetland features. • If federally protected wetlands cannot be avoided by at least 50 feet, then the proposed commercial cannabis operation will not be permitted until such time as cannabis uses may receive federal wetland permitting coverage under Section 404 of the CWA.	
Impact BIO-2: Adversely Affect Riparian Habitat and Other Sensitive Natural Communities	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure BIO-2: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)**	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact BIO-3: Adversely Affect State-Protected or Federally Protected Wetlands	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure BIO-3: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)**	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact BIO-4: Interfere Substantially with the Movement of Resident or Migratory Wildlife Species or with Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure BIO-4: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)**	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact BIO-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact BIO-6: Conflict with the Yolo HCP/NCCP	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: NI ALT 3: NI ALT 4: NI ALT 5: NI
Impact BIO-7: 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	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.5 Cultural Resources			
Impact CULT-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CULT-2: Cause a Substantial Adverse Change in the Significance of an Archaeological Resource	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CULT-3: Disturb Any Human Remains, Including Those Interred Outside of Dedicated Cemeteries	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CULT-4: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
3.6 Energy			
Impact ENE-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact ENE-2: Conflict with Plans for Renewable Energy and Energy Efficiency	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.7 Geology and Soils			
Impact GEO-1: Create Substantial Soil Erosion or Loss of Topsoil	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact GEO-2: Be Located on a Geologic Unit or Soil That Is Unstable or Would Become Unstable as a Result of the Project or Be Located on Expansive Soil, Creating Direct or Indirect Risks to Life or Property	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact GEO-3: Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact GEO-4: Result in the Loss of Availability of a Known Mineral Resource or Locally Important Mineral Resource Recovery Site	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
3.8 Greenhouse Gas Emissions and Climate Change			
Impact GHG-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with Plan or Policies Adopted to Reduce Emissions of Greenhouse Gases	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure GHG-1: Demonstrate Compliance with Yolo County CAP (Alternatives 1, 2, 3, 4, and 5)** The following shall be included as a new performance standard in Section 8-2.1408 of the CLUO: • Permittees shall demonstrate compliance with the applicable provisions of the Yolo County Climate Action Plan (CAP) including energy efficiency measures for irrigation pumps and water efficiency requirements for buildings.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.9 Hazards			
Impact HAZ-1: Create a Significant Hazard through Transport, Use, or Disposal of Hazardous Materials	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HAZ-2: Create a Significant Hazard to the Public or Environment through Reasonably Foreseeable Upset and/or Accident Conditions Involving Release of Hazardous Materials or Be Located on a Site Included on a List of Hazardous Material Sites Complied Pursuant to Government Code Section 65962.5, Which Would Create a Significant Hazard to the Public or Environment	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HAZ-3: Emit Hazardous Emissions or Handle Hazardous Materials within 0.25 Mile of an Existing or Proposed School	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HAZ-4: Result in a Safety Hazard or Noise for People Residing or Working within 2 Miles of a Public Airport or Public Use Airport	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact HAZ-5: Impair or Physically Interfere with Emergency Response or Evacuation Plans	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HAZ-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildfires, Exacerbate Wildfire Risks from Installation of Infrastructure, or Expose People or Structures to Significant Risks Due to Postfire Conditions	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.10 Hydrology and Water Quality			
Impact HYDRO-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface Water or Groundwater Quality through Development or Alteration of Drainage Patterns	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HYDRO-2: Decrease Groundwater Supplies or Interfere with Groundwater Recharge That May Impede Sustainable Groundwater Management and Increase Demand for Water Supply	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HYDRO-3: Impede or Redirect Drainage Patterns in a Manner That Would Result in Flooding	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact HYDRO-4: Conflict with a Water Quality Control Plan	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure HYDRO-4: Prepare a Wastewater Pre-Treatment Program for Commercial Cannabis Activities Discharging to Public Wastewater Systems (Alternatives 1, 2, 3, 4, and 5)** The following shall be added to Section 8.2.1408(TT) of the CLUO: • Applicants for indoor cultivation and noncultivation cannabis operations shall prepare a wastewater pre-treatment program that will characterize	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		wastewater generated and will identify any additional treatment measures required to allow discharge to a public wastewater system without violating the waste discharge requirements of the facility.	
3.11 Land Use			
Impact LU-1: Physically Divide an Established Community	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact LU-2: 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	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact LU-3: Induce Substantial Unplanned Population Growth in an Area, Either Directly or Indirectly	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.12 Noise			
Impact NOI-1: Create Excessive Noise Levels from Construction Activities	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure NOI-1: Implement Construction-Noise Reduction Measures (Alternatives 1, 2, 3, 4, and 5)** The following new performance standards shall be included under Section 8-2.1408 of the CLUO: • From 6:00 a.m. to 6:00 p.m., noise levels shall not exceed an average noise level equivalent (L_{eq}) of eighty (80) decibels (dBA) measured at the property boundaries of the site. However, noise levels shall not exceed an average noise level equivalent (L_{eq}) 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 (L_{eq}) of sixty-five (65) decibels (dBA) measured at the property boundaries of the site.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		• 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 off-site residential structures. Achieving the noise standards may involve setbacks, the use of quieter equipment adjacent to residences, or other appropriate measures.	
Impact NOI-2: Create Excessive Operational Non-Transportation Noise	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact NOI-3: Create Excessive Traffic Noise	ALT 1: NI ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.13 Public Services and Recreation			
Impact PS-1: Result in Substantial Adverse Physical Impacts Associated with the Need for New or Physically Altered Fire Protection Facilities	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact PS-2: Result in Substantial Adverse Physical Impacts Associated with the Need for New or Physically Altered Law Enforcement Facilities	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
3.14 Transportation and Circulation			
Impact TRANS-1: Conflict with Program, Plan, Ordinance or Policy Addressing the Circulation System	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact TRANS-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)	ALT 1: NI ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: NI ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
3.15 Utilities and Service Systems			
Impact UTIL-1: Result in Relocation or Expansion of Wastewater Treatment Systems and Facilities	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact UTIL-2: Result in Relocation or Expansion of Water Supply Systems	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact UTIL-3: Generate Solid Waste in Excess of Solid Waste Facilities or That Conflicts with Regulations	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
4.1 Cumulative			
Impact CUM-1: Contribution to Cumulative Aesthetic Impacts	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	There are no known feasible measures that would offset cumulative impacts.	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU
Impact CUM-2: Contribution to Cumulative Agricultural Resource Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-3: Contribution to Cumulative Air Quality and Odor Impacts	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	There are no known feasible measures that would offset cumulative impacts.	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU
Impact CUM-4: Contribution to Cumulative Biological Resource Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-5: Contribution to Cumulative Cultural Resource Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-6: Contribution to Cumulative Energy Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact CUM-7: Contribution to Cumulative Geology and Soil Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-8: Contribution to Cumulative Greenhouse Gases and Climate Change Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-9: Contribution to Cumulative Hazards and Hazardous Material Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-10: Contribution to Cumulative Hydrology and Water Quality Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-11: Contribution to Cumulative Land Use and Planning Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-12: Contribution to Cumulative Noise Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-13: Contribution to Cumulative Public Service Impacts	ALT 1: LTS ALT 2: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
	ALT 3: LTS ALT 4: LTS ALT 5: LTS		ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-14: Contribution to Cumulative Transportation and Circulation Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact CUM-15: Contribution to Cumulative Utilities and Service System Impacts	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
4.2 Overconcentration			
Impact OVC-1: Aesthetic Impacts from Overconcentration of Cannabis Uses	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure OVC-1a: Modify CLUO Section 8-2.1406(H) (Alternative 1-5)** Establish and implement detailed procedures for implementing Section 8-2.1406(H) of the proposed CLUO for all Alternatives 1 through 5 to include the following: I. Establish a threshold for the number of sites within a six-mile diameter area that would not constitute over-concentration. Based on the EIR analysis, the threshold is five or fewer sites. II. Establish a threshold for the number of sites within a six-mile diameter area that constitutes over-concentration. Based on the EIR analysis, the threshold falls between six and 22 sites which is the identified range of potential overconcentration. The Board of Supervisors will identify a specific threshold for over-concentration as a matter of policy and this threshold will be included in the adopted CLUO as reflected in VI below. III. Prohibit the issuance of any Cannabis Use Permits in any identified or future six-mile diameter area in excess of the threshold established in II above, unless special findings described in VI below are made. IV. The Board of Supervisors shall have final decision-making authority over Cannabis Use Permits in areas of potential over-concentration and over-concentration. In	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		other areas, the Planning Commission will be the decision-making authority, and would only go before the Board of Supervisors on appeal. V. The County shall establish a procedure and appropriate resources for processing use permit applications under the adopted CLUO such that all sites within each of the four identified clusters will be processed simultaneously to enable consideration of community specific issues and to facilitate community involvement. Use permit applications for the 78 existing and eligible licensees will be processed prior to acceptance of subsequent applications. VI. To satisfy Mitigation Measure OVC-1a through c, the proposed language for Section 8-2.1406(H) shall be modified as follows: Section 8-2.1406 (H) Over-Concentration – Five or less cannabis use permits in any area of the County with a diameter of six-miles shall not be considered over-concentrated. Six to XX cannabis use permits in any area of the County with a diameter of six-miles shall be considered potentially over-concentrated. More than XX cannabis use permits in any area of the County with a diameter of six miles shall be considered over-concentrated, and shall not be allowed unless special findings are made as described further below. [3] By resolution adopted concurrently with, or subsequent to, this article, as may be amended from time to time, the Board of Supervisors shall establish procedures and commit resources to implement this section and ensure processing of cannabis use permits in areas of potential over-concentration and over-concentration, consistent with the adopted CLUO. ~~By resolution adopted concurrently with, or subsequent to, this article, as may be amended from time to time, the Board of Supervisors may establish limitations on the number of cannabis operations that may be approved in distinct subregions of the County. The subregions correspond with the jurisdictional boundaries of local General Plan Citizens' Advisory Committees. *Note: Limitations or "caps" on the number of allowed cannabis operations in various County sub-regions have not yet been determined but are expected to be based primarily on population size and density in each subregion, with higher caps in less populated, less dense subregions.* For purposes of applying any limitations set forth in such resolution,~~ ~~m~~Multiple licenses/permits (including permitted co-locations) at a single address shall count as one operation. Subject to this limitation, each operation covered by	

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		a development agreement approved through the "early" development agreement process that predated this article shall also count against the limitation. ~~If any combination of the number of approved use permits, "early" development agreements, or pending permit applications exceeds the limitation within a subregion,~~ The Board of Supervisors shall be the final decision-making authority on any use permit application within an area of potential over-concentration or over-concentration. The Board may approve a use permit in an area of ~~if the approval would create or add to an~~ over-concentration only upon making special findings that denial of the application would unduly limit development of the legal market so as to perpetuate the illegal market for cannabis and related products, ~~and~~ that the approval would not cause or contribute to a cannabis-related law enforcement problem or other public nuisance in the affected subregion and any surrounding affected areas. [3] This will be replaced with the threshold determined by the Board of Supervisors pursuant to Mitigation Measure OVC-1a(II) **Mitigation Measure OVC-1b: Establish Priority Processing for Cannabis Use Permits in Cluster Areas (Alternatives 1-5)** Adopt procedures pursuant to Mitigation Measure OVC-1a V to ensure that Cannabis Use Permits for existing cannabis cultivation sites in the Guinda/Rumsey Cluster #1, Willow Oaks/Monument Hills Cluster #2, Dunnigan Area Cluster #3, and Esparto Area Cluster #4 are processed prior to the consideration of new cannabis uses under any alternative. **Mitigation Measure OVC-1c: Expand Cannabis Use Permit Issuance Findings (Alternatives 1-5)** Modify CLUO Section 8-2.1406(L) to add the following community considerations in addition to the those already identified in the CLUO for determining whether to grant a Cannabis Use Permit: • Number of cannabis operations in area • Proximity of cannabis operations (e.g. to each other/and/or to other identified sensitive uses) • Adjoining/nearby land uses • Population in area	

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
		• Crime rate in area • Compliance history of the applicant and/or operator • Nuisance abatements in area • Community character • Community support • Parcels size and proposed uses on non-cannabis portion of parcel • Subject matter input relevant to the specific location or proposed project from County department and division heads • Other cultural, social, equity, and environmental justice concerns deemed applicable by the County	
Impact OVC-2: Agricultural Resource Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-3: Air Quality and Odor Impacts from Overconcentration of Cannabis Uses	ALT 1: S ALT 2: S ALT 3: S ALT 4: S ALT 5: S	**Mitigation Measure OVC-1a: Modify CLUO Section 8-2.1406(H) (Alternative 1-5)** **Mitigation Measure OVC-1b: Establish Priority Processing for Cannabis Use Permits in Cluster Areas (Alternatives 1-5)** **Mitigation Measure OVC-1c: Expand Cannabis Use Permit Issuance Findings (Alternatives 1-5)**	ALT 1: SU ALT 2: SU ALT 3: SU ALT 4: SU ALT 5: SU
Impact OVC-4: Biological Resource Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-5: Cultural Resource Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact OVC-6: Energy Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-7: Geology and Soil Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-8: Greenhouse Gases and Climate Change Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-9: Hazards and Hazardous Material Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-10: Hydrology and Water Quality Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-11: Land Use and Planning Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measure (Alternative to which it applies)	Significance after Mitigation
Impact OVC-12: Noise Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-13: Public Service Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-14: Transportation and Circulation Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS
Impact OVC-15: Utilities and Service System Impacts from Overconcentration of Cannabis Uses	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS	No mitigation is required for any of the alternatives.	ALT 1: LTS ALT 2: LTS ALT 3: LTS ALT 4: LTS ALT 5: LTS

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1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the potential environmental impacts of adoption and implementation of the Yolo County Proposed Cannabis Land Use Ordinance (CLUO, or project), including adoption of related General Plan amendments. It has been prepared under the direction of Yolo County in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Sections 21000–21177) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Sections 15000–15387). The County of Yolo is the lead agency for consideration of this EIR and potential project approval.

1.1 PURPOSE OF THIS EIR

CEQA requires that public agencies consider the significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (PRC Section 21000 et seq.). It also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, significant adverse environmental effects of projects it approves or implements. If implementing a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can still be approved, but the lead agency decision maker—in this case, the Yolo County Board of Supervisors (Board)—must prepare findings and issue a "statement of overriding considerations," explaining in writing the specific economic, social, or other considerations that they have determined, based on substantial evidence, make those significant effects acceptable (PRC Section 21002, CCR Section 15093).

According to State CEQA Guidelines Section 15064(f)(1), preparation of an EIR is required whenever a project may result in a significant adverse environmental impact that cannot be clearly mitigated to a less-than-significant level. As required by CEQA, an EIR is used to inform public agency decision makers and the public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

In compliance with CEQA, this EIR discloses the environmental consequences of implementing the CLUO, assuming five alternative regulatory scenarios. This EIR is designed to fully inform the County decision makers, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of implementing the CLUO. Upon certification of the Final EIR, the Yolo County Board of Supervisors will use the analysis in this EIR to support a decision to adopt the proposed General Plan amendment and CLUO.

As encouraged under CEQA, the County intends to use this Program EIR prepared for the CLUO to streamline the environmental review and consideration of future cannabis operation applications. The County plans to make use of the streamlining provided by CEQA, as applicable. Subsequent to adoption of the CLUO, applicants, including those licensed or eligible for licensing under the County's current cannabis program, will apply for Cannabis Use Permits pursuant to the new regulations. Individual applications for commercial cannabis operations under the ordinance will be subject to further site-specific environmental review as applicable under CEQA pursuant to State CEQA Guidelines Section 15168(c), Use with Later Activities. This section of the guidelines addresses environmental review of projects intended to be addressed in a program for which an EIR was prepared. The County may determine that the environmental impacts of an individual project are adequately addressed in the EIR and that no further environmental review is required, or it may determine that additional environmental review is required or could require focused environmental review. Preparation of a site-specific environmental review document would be required if the County determines that the individual project would cause a significant environmental impact that was not examined in the EIR

or would substantially increase the severity of a previously identified significant impact under State CEQA Guidelines Sections 15162 and 15168(c). This Program EIR may also be used and/or relied upon by the California Department of Food and Agriculture for its licensing actions.

Under PRC Section 21083.3 and State CEQA Guidelines Section 15183, lead agencies can use EIRs prepared for zoning actions (such as this ordinance) to analyze the impacts of proposed cannabis projects that may be approved pursuant to the ordinance, and limit later project-level analysis to only site-specific issues not already examined (if any). Under the above-referenced code sections, CEQA analysis for later projects will be limited to issues "peculiar" to the site or new environmental concerns not previously addressed. State CEQA Guidelines Section 15183(f) provides that impacts are not "peculiar" to the project if uniformly applied development policies or standards substantially mitigate that environmental effect. Upon adoption, the CLUO will meet the definition of a uniformly adopted standard, and compliance with the CLUO will allow for CEQA streamlining.

1.2 CANNABIS LAND USE ORDINANCE BACKGROUND

On March 22, 2016, in response to the Medical Marijuana Regulation and Safety Act and to effect greater local control, the Board adopted the Marijuana Cultivation Ordinance (Ordinance Number 1467), adding Chapter 20 to Title 5 of the Yolo County Code to regulate medical cannabis cultivation in Yolo County.

The overall purpose of the proposed CLUO is to add Article 14 (Cannabis Land Use Ordinance) to Title 8, Chapter 2, Zoning Regulations, of the Yolo County Code, establishing new Zoning Regulations to control cannabis operations throughout the unincorporated County area. These regulations are separate and distinct from the cannabis licensing regulations currently in Chapter 20 of Title 5 of the Yolo County Code, which will ultimately be modified and moved to a new Chapter 4 in Title 12 (Business Licenses).

1.3 EQUAL WEIGHT CANNABIS LAND USE ORDINANCE ALTERNATIVES

The County is considering five alternative variations to the proposed CLUO, all of which rely on the same underlying regulatory requirements that would regulate cannabis activities through land use, zoning, and development standards. The alternatives vary by the assumed type of cannabis license/activity, limits on the number of operations, buffer distances, and performance standards. The County has identified Alternative 1 as the proposed project (CEQA preferred alternative); however, this should not be construed as selecting this alternative over any others. These five alternatives are evaluated at an equal level of detail and are summarized below. This EIR is intended to provide analysis sufficient to allow one of the alternatives or a modified version of one of the alternatives that incorporates features from the other alternatives to be adopted.

1.3.1 Alternative 1: Cultivation (Ancillary Nursery and Processing Operations Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 assumes that existing personal use and commercial cannabis cultivation (including on-site nurseries and processing that provides support to the cultivation operation) would continue to operate but under the requirements of the new CLUO, in addition to the existing County licensing ordinance, rather than solely under the provisions of the existing licensing ordinance. There are currently 78 existing and eligible cultivators in the County. This alternative assumes 78 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws, and the proposed CLUO:

- personal: unlimited
- cultivation: 78 operations

This alternative includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences, and 1,000-foot buffers between outdoor cannabis uses and the following uses: residentially designated lands, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

1.3.2 Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes that all types of cannabis uses would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

Alternative 2 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions, for example, within the defined comment areas of the County's citizen's advisory committees) (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 1,000-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

1.3.3 Alternative 3: All License Types with High Limits

Alternative 3 assumes that all types of cannabis uses would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusiness. As defined, implementation of this alternative would result in 264 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 160 (includes 78 operations from Alternative 1)
- nurseries: 10
- processing: 10
- manufacturing: 4
- testing: 10
- distribution: 20
- retail: 4
- microbusiness: 100

Alternative 3 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions for example within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 75-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

1.3.4 Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes that personal cultivation, commercial cannabis cultivation, nurseries, processing, and microbusinesses would be limited to indoor and mixed-light operations within a structure. It is assumed that 75 of the existing and eligible cannabis cultivation sites with outdoor cultivation would convert entirely to indoor or mixed-light cultivation in greenhouses or indoor buildings. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal (indoor only): unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

Alternative 4 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions (for example, within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO).

1.3.5 Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes all license types, with the exception of retail, but would limit commercial cannabis (including personal outdoor grows) to agricultural zone districts. Personal indoor grows would be allowed in all zoning districts. As defined, implementation of this alternative would result in 130 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- microbusiness: 5

This alternative includes 1,000-foot buffers between outdoor cannabis uses and the following uses: occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as that would have the unintended effect of prohibiting such use entirely.

1.4 LEAD AGENCY

For this EIR, Yolo County is the lead agency under CEQA (State CEQA Guidelines Section 15367).

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Under CEQA, a responsible agency is a public agency, other than the lead agency, that has responsibility to carry out or approve a project (PRC Section 21069). A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California (PRC Section 21070).

The following responsible and trustee agencies may have jurisdiction over elements of the project:

- California Department of Consumer Affairs, Bureau of Cannabis Control;
- California Department of Fish and Wildlife;
- California Department of Food and Agriculture, CalCannabis;
- California Department of Pesticide Regulation;
- California Department of Public Health;
- California Department of Transportation;
- California Department of Water Resources;
- Central Valley Regional Water Quality Control Board;
- State Water Resources Control Board; and
- Yolo-Solano Air Quality Management District.

1.6 CEQA PROCESS AND SCOPE OF ENVIRONMENTAL ANALYSIS

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus an EIR's discussion on significant environmental effects and may limit discussion on other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15128). Potentially significant impacts were identified based on review of comments received as part of the public scoping process for the notice of preparation (NOP) (Appendix A) and additional research and analysis of relevant project data during preparation of this Draft EIR.

The County has determined that the project has the potential to result in significant environmental impacts on the following resources, which are addressed in detail in this Draft EIR:

- aesthetics;
- agricultural resources;
- air quality and odors;
- biological resources;
- archaeological, historical, and tribal cultural resources;
- energy;
- geology and soils;

- greenhouse gas emissions and climate change;
- hazards and hazardous materials;
- hydrology and water quality;
- land use and planning;
- noise;
- public services;
- transportation and circulation; and
- utilities and service systems.

The NOP substantiated that forestry resources would not be addressed in the Draft EIR because Yolo County has no commercial forestland or timber resources and the proposed CLUO would prohibit the removal of oak woodlands. Therefore, no impact on forestry resources is expected to occur.

1.7 NOTICE OF PREPARATION AND PUBLIC SCOPING

CEQA requires an early and open process for determining the scope of issues that should be addressed in the EIR. The NOP provides formal notification to all state, regional, and local agencies that may have interest in the project, and to other interested organizations and members of the public, that an EIR will be prepared for the project. The NOP is intended to encourage interagency communication concerning the proposed action and to provide background information about the proposed action sufficient to allow agencies, organizations, and individuals to respond with specific comments and questions on the scope and content of the EIR. A copy of the NOP, a table of comments received and how the comments are addressed in the Draft EIR, and copies of the comments received on the NOP are provided in Appendix A.

Yolo County issued the NOP on August 24, 2018. As required by CEQA, the County sent a copy of the NOP to the State Clearinghouse within the California Office of Planning and Research and to the Yolo County Clerk-Recorder. The NOP was also posted on the County's website (https://www.yolocounty.org/community-services/cannabis-3398).

A public scoping meeting was conducted at the Yolo County Planning Commission meeting of September 13, 2018.

1.8 ORGANIZATION OF THIS DRAFT EIR

This Draft EIR is organized as follows:

- **Executive Summary:** This chapter introduces the CLUO; provides a summary of the environmental review process, and key environmental issues; and lists significant environmental impacts and mitigation measures to reduce significant impacts to a less-than-significant level. Finally, areas of controversy and issues to be resolved are described.

- **Chapter 1, "Introduction":** This chapter provides a description of the lead and responsible agencies, the legal authority and purpose of the EIR, the scope of the environmental analysis, agency roles and responsibilities, the CEQA public review process, and organization of this EIR.

- **Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives":** This chapter describes the project background, including existing and related regulations; lists the objectives of the CLUO; and provides a detailed description of the CLUO and the five alternatives.

- **Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures":** The resource sections in this chapter evaluate the environmental impacts expected to be generated by the project. The five alternatives for the CLUO are evaluated at an equal level of detail in this chapter. In each subsection of Chapter 3, the regulatory background, existing environmental setting, significance criteria, and analysis methodology and

assumptions are described. The anticipated changes to existing environmental conditions associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO are then evaluated for each resource. For any significant or potentially significant impact that would result from implementing any of the five alternatives, mitigation measures are presented, and the resulting level of significance is identified. Environmental impacts are named and numbered to reflect the section of Chapter 3 in which they are introduced and the order in which they are discussed. For example, the first impact discussed in Section 3.1, "Aesthetics," is identified as Impact AES-1. Any required mitigation measures are named and numbered to correspond to the relevant impacts; therefore, the mitigation measure for Impact AES-1 would be Mitigation Measure AES-1.

- **Chapter 4, "Cumulative Impacts and Overconcentration":** This chapter provides information regarding the potential cumulative impacts that would result from implementation of the CLUO under each of the five alternatives together with other past, present, and probable future projects. This chapter also evaluates the environmental impacts that may occur from a concentration of multiple cannabis uses located in distinct subregions of the County.

- **Chapter 5, "Alternatives":** This chapter provides a summary of the impact conclusions for each of the five alternatives evaluated at an equal level of detail in Chapter 3, identifies alternatives considered but rejected from further consideration, and identifies the environmentally superior alternative.

- **Chapter 6, "Other CEQA-Mandated Sections":** This chapter provides a summary of the significant and irreversible commitment of resources, and the growth-inducing impacts associated with implementing the CLUO.

- **Chapter 7, "List of Preparers":** This chapter identifies the lead agency contacts and the preparers of this Draft EIR.

- **Chapter 8, "References":** This chapter identifies the documents and persons used as sources for the analysis presented in this Draft EIR.

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2 DESCRIPTION OF PREFERRED ALTERNATIVE AND EQUAL WEIGHT ALTERNATIVES

This Draft EIR evaluates the environmental impacts associated with the CLUO. Adoption of the proposed CLUO would establish land use regulations for all cannabis activities and operations within unincorporated Yolo County.

The County currently regulates the cultivation of marijuana (cannabis) under Chapter 20 of Title 5 of the Yolo County Code of Ordinances (Yolo County Code). Chapter 20 includes standards for setbacks, compliance with the Central Valley Regional Water Quality Control Board[1], surety bonding, lighting restrictions for mixed-light cultivation, and implementation and enforcement provisions. The approval process for cannabis cultivation licenses is currently ministerial with no public notification or hearing process. Cannabis cultivation licenses are required to be renewed annually. The County proposes to amend the County General Plan and Chapter 2 of Title 8 of the Yolo County Code to continue to regulate, and potentially reduce or expand, allowed cannabis activities in the unincorporated area. The County is considering five alternative variations to the CLUO, all of which rely on the same underlying regulatory requirements that would regulate cannabis activities through land use, zoning, and development standards. The alternatives vary based on allowed cannabis license types, assumed numbers of operations, allowed locations based on zoning, controls on overconcentration, and required buffers from identified sensitive uses. These alternatives are summarized below.

2.1 REGIONAL AND LOCAL SETTING

Yolo County is located in the northern part of the Central Valley of California (Exhibit 2-1) and is bounded by Sacramento, Sutter, Colusa, Lake, Napa, and Solano Counties. The County consists of approximately 653,550 acres, which includes four incorporated cities totaling 32,325 acres. The four incorporated cities are Davis, West Sacramento, Winters, and Woodland. In addition to the incorporated cities, land owned by state and federal agencies, tribal trust land held on behalf of the Yocha Dehe Wintun Nation, and the University of California, Davis, campus have independent land use decision-making authority and are not under the jurisdiction of Yolo County. There are 11 unincorporated towns in Yolo County: Capay, Guinda, Rumsey, Clarksburg, Dunnigan, Esparto, Knights Landing, Madison, Monument Hills, Yolo, and Zamora. These unincorporated towns are under the jurisdiction of the County. Aside from the small unincorporated communities, the unincorporated area is generally rural and composed primarily of agricultural land uses.

Yolo County is generally flat with three mountain areas consisting of the Blue Ridge Mountains (located along its western boundary), the Capay Hills (located in the northwestern portion of the County), and the Dunnigan Hills (located just west of Interstate 5, in the northern portion of the County). Major water features in the County include the Sacramento River, Putah Creek, Cache Creek, Colusa Basin Drainage Canal, and Willow Slough. The Yolo Bypass is a 41-mile-long area of agricultural lands subject to flowage easements bounded by levees created as a part of the Sacramento River system to provide flood protection for the city of Sacramento. For further description of the County's agricultural and natural resources, refer to Section 3.2, "Agricultural Resources," and Section 3.4, "Biological Resources."

[1] Board Order No. R5-2015-0113 protects water quality, biological resources, and cultural resources, and is now superseded by the State Water Resources Control Board Cannabis Cultivation Policy – Guidelines for Cannabis Cultivation.

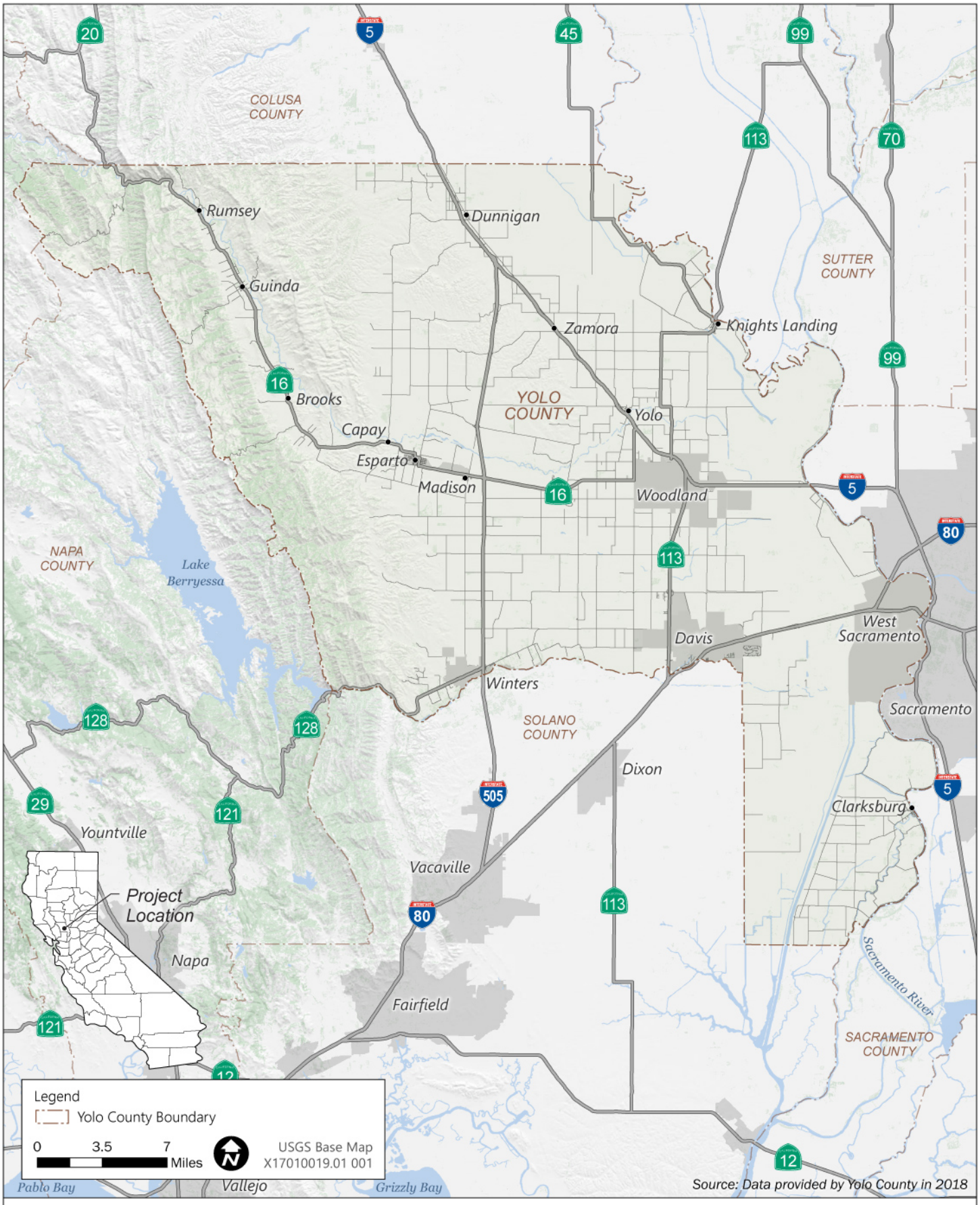


Exhibit 2-1 **Regional Location**

2.2 CANNABIS OVERVIEW

The use of cannabis was initially regulated under federal law in 1937, when Congress passed the Marijuana Tax Act. The Marijuana Tax Act was repealed through passage of the Controlled Substances Act in 1970, which scheduled or categorized therapeutic goods. Through the Controlled Substances Act, cannabis was deemed to be a Schedule 1 substance, meaning that it is categorized by the federal government as having no valid medical uses and a high potential for abuse. Since that time, efforts to decriminalize, legalize, and otherwise reschedule marijuana have occurred at the federal and state levels.

The State of California regulates the cultivation, manufacture and use of cannabis through a variety of legislative and regulatory processes. Local jurisdictions are allowed to enact more stringent regulations or to ban commercial cannabis activities. Yolo County enacted its own cultivation licensing ordinance in March 2016. Section 2.3 provides a further description of state and County regulations associated with the licensing of cannabis uses.

SUMMARY OF CANNABIS CULTIVATION AND COMMERCE PROCESSES

Cannabis cultivation requires a growth medium, light, water, and nutrients. This section describes activities and processes associated with cannabis cultivation, including stages of growth, indoor and outdoor growth requirements, harvesting activities, and preparation of cannabis products for sale. The commerce process for cannabis includes manufacturing, testing, retail, and distribution. This discussion begins with nursery operations and continues through the commerce process.

Nursery Operations

To maintain specific varieties of cannabis at cultivation sites, the practice of cloning is often employed. Mature female plants maintained in a vegetative nonflowering stage using artificial light for approximately 18 hours per day are used as a source of the cuttings, or "clones." Cuttings (i.e., targeted trimmings of a plant) are taken and dipped into medium to stimulate root growth. After roots develop, the clones are placed into small pots to grow to a size sufficient for transplanting to larger pots in which they grow to maturity.

Germination, the process during which seeds sprout, typically occurs in a nursery in an enclosed greenhouse building. Generally, germination is initiated by soaking seeds between wet paper towels, soaking them in a cup of water at room temperature, planting them in wet peat pellets, or planting them directly in potting soil. Warmth, darkness, and moisture initiate metabolic processes, such as the activation of hormones that trigger the expansion of the embryo in the seed. After germination is complete, seedlings are prepared for indoor, outdoor, or mixed-light cultivation.

Nurseries can be located on the cultivation sites as an ancillary component of cultivation operations when used to support on-site needs without separate state licensing. Nurseries can also be operated as a stand-alone retail or wholesale operation that can provide a source of seed or immature clone plants that can be purchased for personal use or as part of a commercial cultivation operation. These types of nurseries are licensed separately from cultivation under the state's licensing process. Nurseries may have indoor, outdoor, or mixed-light operations. Per County regulation, cultivation garden canopy is limited to 43,560 square feet (sq. ft.) per County license (Yolo County Code Section 5-20.04[A][2][a][1]).

While currently in Yolo County, nurseries are only allowed to serve the on-site needs of the applicant cultivator, two applications for commercial nurseries that would be permitted to serve other cultivators have been received under the County's nursery and processing facilities pilot program. The reader is referred to Section 2.3.4 for further details on the County's nursery and processing facilities pilot program.

Cultivation Operations

There are three cultivation operation types recognized through the state licensing program: outdoor, mixed-light, and indoor. The following summarizes each cultivation operation type and the current extent of these cultivation operations in the County.

As identified in Appendix B and shown in Exhibit 2-2, there are 78 licensed or eligible cannabis cultivators ("operations") in the County. Based on review of County geographic information system mapping and Google Earth satellite imagery, approximately 266 acres (2 acres per cultivation site) have been committed to the cultivation of cannabis (defined as the "activity footprint') including buildings, staging areas, and storage areas.

Outdoor Cultivation

Cannabis can be grown outdoors, either in natural soil or in pots of premade or commercial soil with no artificial light. In Yolo County, outdoor cultivation includes cultivation in fields and may include the use of hoop houses. Per County regulation, cultivation garden canopy is limited to 43,560 sq. ft. per County license (Yolo County Code Section 5-20.04[A][2][a][1]). Some strains perform better than others in outdoor settings, depending on conditions. To generate optimum quantities of cannabinoids, the plant needs fertile soil and long hours of daylight. For outdoor cultivation, growers generally select areas that receive 12 hours or more of sunlight per day. Depending on the varietal, each plant can reach 12 or more feet in height with a radius of 6 feet or more.

Based on existing licensed cultivation site operations in the County, individually licensed cultivation garden canopy area ranges from 0.50 acre to 1 acre in size (average size is 0.88 acre). Building and structures that are typically found at outdoor cultivation sites in the County include single-family residences (800–5,000 sq. ft.), offices (1,000–2,000 sq. ft.), outbuildings that are used for material storage and processing of on-site cultivated cannabis (800–23,000 sq. ft.), and greenhouses (600–18,000 sq. ft. per building). Outdoor cultivation in the County ranges from one to three harvests a year. Average full-time employment is approximately 4.5 employees per acre of outdoor cannabis cultivation, while seasonal (harvest) employment can vary from three to 30 employees per operation (Ascent 2018).

Mixed-Light Cultivation

Mixed-light cultivation is cultivation using a combination of natural and supplemental artificial lighting to increase the number of harvests in a year. In Yolo County, this is cultivation that occurs within greenhouses. Per state regulation, canopy is limited to 22,000 sq. ft. per state license (3 CCR Section 8201[d]); however, because the state allows stacking of small licenses, the County's one-acre limit becomes the effective limit for mixed-light cultivation in Yolo County. Mixed-light cultivation operations allow for manipulation of light and dark cycles through the use of artificial lighting or deprivation of light. Light manipulation is used to increase or decrease the vegetative and flowering phases by mimicking seasonal daylight variation. In the northern hemisphere, daylight exceeds 12 hours per day beginning with the vernal equinox (March 21) and is less than 12 hours per day after the autumnal equinox (September 21). Longer light exposure, which in nature peaks at the summer solstice (June 21), is associated with the vegetative stage; the flowering stage is prompted when the number of daylight hours approaches 12 hours per day or less.

Light manipulation techniques can increase the number of harvests per year. Artificial light is used to "extend" daylight hours or to disrupt periods of darkness (typically for approximately 2 hours in the middle of the night) to foster vegetative development, and shorter hours of exposure, achieved in mixed-light operations by covering greenhouses with light-blocking opaque tarps, are used to promote flowering. In addition, artificial light may be used to supplement sunlight during periods of low light (e.g., several days of rain). Light systems that are not connected to the electrical grid use generators and/or solar-powered batteries to power lights when natural light is not available.

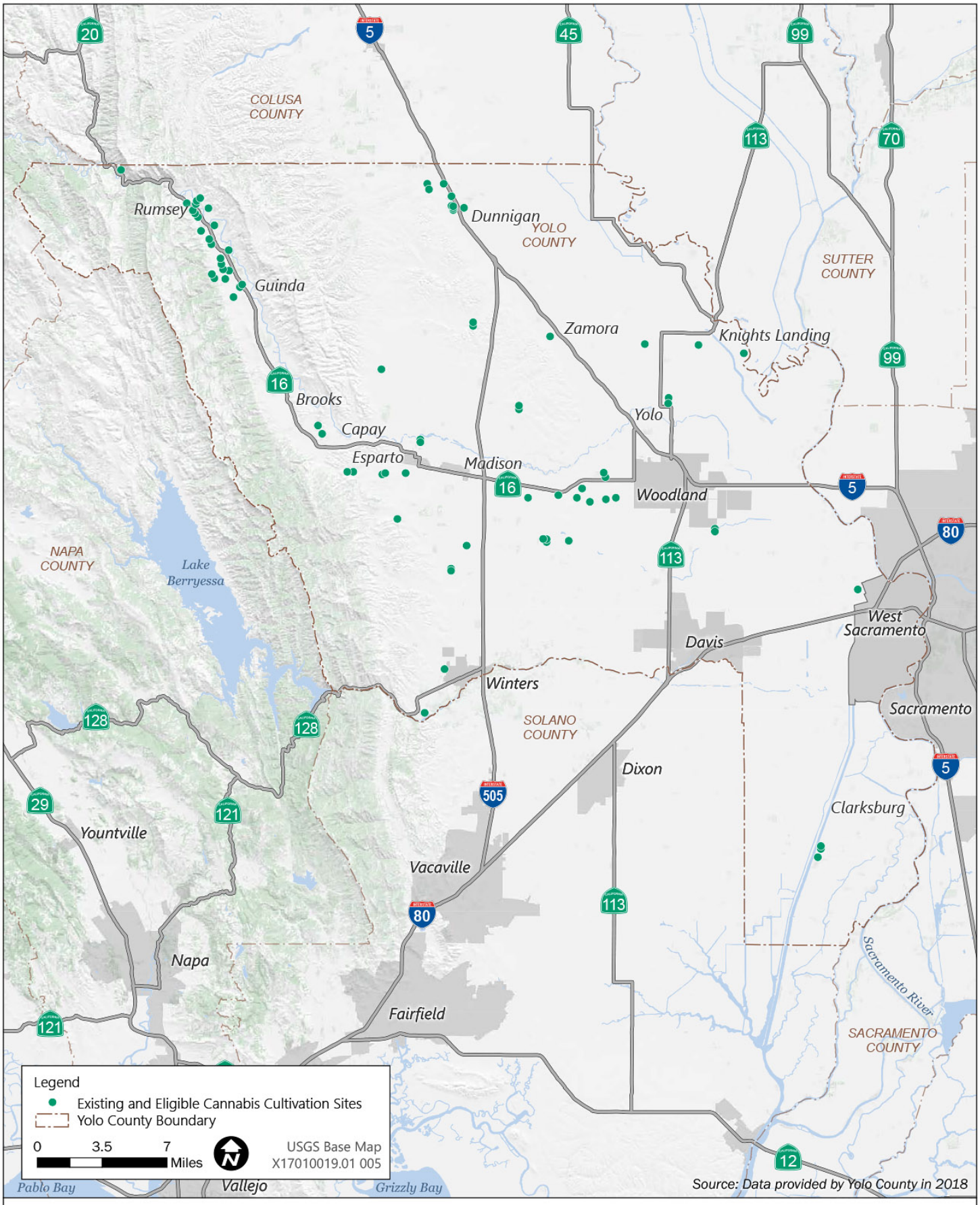


Exhibit 2-2 **Existing and Eligible Cultivation Sites**

Individually licensed mixed-light cultivation garden canopy area ranges from 0.12 acre to 1 acre in size (average size is 0.62 acre). Buildings and structures that are typically found at mixed-light cultivation sites in the County include single-family residences (1,200–5,000 sq. ft.), offices (1,000–1,500 sq. ft.), outbuildings that are used for material storage and processing of on-site cultivated cannabis (1,000–20,000 sq. ft.), hoop houses, and greenhouses (600–18,000 sq. ft.). County mixed-light cultivation can range from three to four harvests a year. Average full-time employment is approximately 28 employees per acre of mixed-light cannabis cultivation canopy (existing and proposed based on cannabis applications received in response to the early implementation development agreements for cannabis operations) in the County (Ascent 2018).

Indoor Cultivation

Indoor cultivation is cultivation that makes exclusive use of artificial light during the vegetative and flowering phases. In Yolo County, this is cultivation undertaken inside of buildings. Per state regulation, canopy is limited to 22,000 sq. ft. per state license (3 CCR Section 8201[d]); however, because the state allows stacking of small licenses, the County's 1-acre limit becomes the effective limit for indoor cultivation in Yolo County. Generally, cultivating cannabis indoors rather than outdoors is more complicated and expensive, but it allows the cultivator complete control over the growing environment and increases the number of harvests per year. Plants of any type can be grown faster indoors than outdoors because light, carbon dioxide concentrations, and humidity can be controlled. Plants can also be grown indoors through the use of hydroponics, which uses a mineral nutrient solution in water rather than soil.

Year-round indoor cultivation is subject to substantial energy demands associated with lighting fixtures, cooling ventilation systems, humidity control, watering, and air filtration systems.

Water demand for indoor cultivation varies, depending on whether the grower employs a water capture/ reuse system. The use of dehumidifiers or modified air conditioning systems that can capture water for reuse can reduce water demand.

Indoor operations in the County are contained in buildings that range from 3,200–5,000 sq. ft. in size and are permitted to cultivate between 501 and 5,000 sq. ft. of garden canopy area. These sites also include single-family residences and outbuildings. Indoor cultivation operations in the County typically generate up to four harvests a year. Average full-time employment is approximately two employees per 5,000 sq. ft. of indoor cannabis cultivation (Ascent 2018).

Processing Activities

Processing includes drying, curing, grading, trimming, and packing as a separate process from cultivation. These steps may be performed within the parcel where the cannabis was grown or at separate licensed facilities that accept product from multiple cultivation sites. Commercial cannabis processing activities generally require a maximum of approximately 10–15 employees. Plants are trimmed of their leaves to reveal buds, which typically are hang-dried or placed on drying racks in a warehouse, barn, or other enclosed building. Trimming may be done by hand or through the use of mechanized trimming. Cultivation sites may accommodate harvest staff on-site, or staff may commute daily. Harvested and trimmed cannabis typically is vacuum-sealed in plastic bags.

Each licensed cultivation site may process its own product. Buildings used for processing in the County range from 600 to 20,000 sq. ft. in size. Under the County's nursery and processing facilities pilot program, the County has received an application for a commercial processing facility that would accept product from other cultivation sites for processing and distribution.

Testing Activities

Upon taking physical possession of a cannabis goods batch, cannabis distributors are required under CCR Title 16, Division 42, Section 5304 to have the cannabis tested by a licensed testing laboratory. Testing facilities must be an accredited laboratory to perform tests consistent with the requirements of CCR Section 5702. Cannabis must be sampled for the following constituents:

- cannabinoids;
- foreign material;
- heavy metals;
- microbial impurities;
- mycotoxins;
- moisture content and water activity;
- residual pesticides;
- residual solvents and processing chemicals;
- if applicable, terpenoids; and
- if applicable, homogeneity.

There are currently no testing facilities in the unincorporated area of the County as existing Yolo County Code prohibits this use. There are existing state-licensed testing facilities in the city of Davis and, outside the County, in the city of Sacramento (California Bureau of Cannabis Control 2019).

Manufacturing Activities

Manufacturing is the process by which the raw agricultural product is transformed into a concentrate, edible products, or a topical product. The production, preparation, propagation, or compounding of cannabis or cannabis production is accomplished through extraction methods and/or chemical synthesis. Extraction usually involves the use of a closed loop system using carbon dioxide or volatiles (e.g., butane) to remove the key constituents from the cannabis. Generally, no more than 15 employees are required for large-scale operations. There are various types of licenses that can be obtained through the state for different types of manufacturing activities. Manufacturing activities can include the packaging or repackaging of cannabis products or the labeling or relabeling of the cannabis product container.

There are currently no manufacturing facilities in the unincorporated area of the County as existing Yolo County Code prohibits this use. There are existing state-licensed manufacturing facilities in the cities of Davis, West Sacramento, and Sacramento (California Department of Public Health 2019).

Distribution Activities

Under current state law, manufactured cannabis products must pass through a licensed distributor before they can be offered for retail sale to patients with physician recommendations for medical cannabis use or to adults for recreational use. The distribution phase includes an important quality control step whereby product is held for testing by independent licensed testing laboratories for cannabis constituent content, strength, and contaminants.

There are currently no distribution facilities in the unincorporated area as existing Yolo County Code prohibits this use, except as allowed under the County's nursery and processing facilities pilot program and early implementation development agreement program. In early 2019, however, the Board of Supervisors (Board) approved the issuance of County distribution licenses to enable licensed cultivators to distribute only their own product. Specifically, two types of distributor licenses were approved by the Board, consistent with the state distributor licenses:

- Distributor: A distributor is responsible for transporting cannabis goods, arranging for testing of cannabis goods, and conducting quality assurance review of cannabis goods to ensure they comply with all packaging and labeling requirements.

- Distributor-Transport: A distributor-transport license allows a licensee to transport cannabis goods between licensed cultivators, manufacturers, and distributors.

There are existing state-licensed distribution facilities in the cities of Davis, Woodland, West Sacramento, and Sacramento (California Bureau of Cannabis Control 2019).

Retail Activities

Retail facilities are required by the State to be located at least 600 feet from schools (grades K through 12), day care centers, and youth centers unless the jurisdiction establishes alternative buffers (16 C.C.R. Section 5026). They are required under the state licensing process to maintain and implement operating procedures for the safe transportation of cannabis, inventory procedures, quality control process for cannabis goods, security and surveillance systems, and waste management procedures. Retail sale of cannabis products is required by state law to be conducted exclusively through licensed dispensaries to qualified patients holding physician recommendations for cannabis use, which may include persons under 21 years of age, or for adults 21 years of age and older for recreational use. The retail outlets may not offer alcohol or tobacco products for sale. However, state licenses do not require separate licensed retail outlets for medical cannabis and adult cannabis uses.

There are currently no retail facilities in the unincorporated area as existing Yolo County Code prohibits retail uses. There are existing state-licensed retail facilities in the cities of Davis and Sacramento (California Bureau of Cannabis Control 2019).

The following is a description of state-licensed retail activities for cannabis and cannabis products.

Non-Storefront Retail

Non-storefront retail sites sell cannabis or cannabis products that are delivered to the consumer. No on-site sales of cannabis are allowed under this license type.

Storefront Retail

State-licensed storefront retail uses include on-site sales and delivery of cannabis or cannabis products to consumers. Retail building sites generally range from 900 to 3,500 sq. ft. in size statewide and have a full-time staff of eight to 20 employees (Ascent 2018). Average hours of cannabis retail operations in the city of Davis are 10:00 a.m. to 8:00 p.m. and in the city of Sacramento are 9:00 a.m. to 9:00 p.m.

Microbusiness

Microbusiness licensed businesses must combine at least three of the following activities: cultivation operations (less than 10,000 sq. ft. of cannabis canopy area), manufacturing (non-volatile), distribution, and/or retail sales. These activities must be conducted on the same site. Existing state-licensed microbusinesses in the region are limited to the city of Sacramento (California Bureau of Cannabis Control 2019).

2.3 EXISTING STATE AND COUNTY CANNABIS REGULATIONS

As discussed above, cannabis is regulated as a Schedule 1 drug under the federal Controlled Substances Act. In California, the passage of Proposition 215 in 1996 legalized medical marijuana, and the passage of Proposition 64 in 2016 decriminalized recreational marijuana for adults over 21 years of age. Both medical and recreational marijuana remain illegal under federal law. The following is an overview of state and Yolo County cannabis regulations.

2.3.1 Evolution of State Cannabis Regulations

COMPASSIONATE USE ACT (1996) AND THE MEDICAL MARIJUANA PROGRAM ACT (2003)

The Compassionate Use Act of 1996, which allowed for the medical use of cannabis in California under state law, was passed through voter approval of Proposition 215. It allowed patients with a valid doctor's recommendation and the patients' designated primary caregivers to possess and cultivate cannabis for personal medical use without facing criminal charges from the state. The Compassionate Use Act changed California's penal code by decriminalizing the cultivation and possession of medical marijuana by a patient

or the patient's primary caregiver for the patient's personal use and by creating a limited defense to the crimes of possessing or cultivating marijuana.

The passage of Senate Bill (SB) 420 (Statutes of 2003) enacted the Medical Marijuana Program Act. The Medical Marijuana Program Act clarified the scope and application of the Compassionate Use Act and established the California medical marijuana program. Specially, this act established a voluntary program for the issuance of identification cards to qualified patients and established procedures under which a qualified patient with an identification card may use marijuana for medical purposes to protect patients and their caregivers from arrest.

MEDICAL CANNABIS REGULATION AND SAFETY ACT (2015)

Originally referred to as the Medical Marijuana Regulation and Safety Act but renamed through subsequent amendments, the Medical Cannabis Regulation and Safety Act consists of three separate bills that were enacted together in September 2015 (Assembly Bill [AB] 266, AB 243, and SB 643). The bills created a comprehensive state licensing system for the commercial cultivation, manufacture, retail sale, transport, distribution, delivery, and testing of medical cannabis. All licenses must be approved by local governments. AB 266 established a new Bureau of Medical Cannabis Regulation (now called the California Bureau of Cannabis Control or BCC) under the California Department of Consumer Affairs. SB 643 and AB 243 established the following responsibilities: the California Department of Food and Agriculture (CDFA) is responsible for regulating cultivation; the California Department of Public Health is responsible for developing standards for manufacture, testing, and production and labeling of edibles; the California Department of Pesticide Regulation is responsible for developing pesticide standards; and the California Department of Fish and Wildlife and State Water Resources Control Board are responsible for protecting water quality.

ADULT USE OF MARIJUANA ACT (2016) AND MEDICINAL AND ADULT-USE CANNABIS REGULATION AND SAFETY ACT (2017)

On November 8, 2016, California voters approved Proposition 64, the California Marijuana Legalization Initiative, or the Adult Use of Marijuana Act. Proposition 64 decriminalized the personal use and cultivation of marijuana in California as of November 9, 2016. The ability to sell recreational cannabis, and taxation of those transactions, went into effect January 1, 2018. The act established a comprehensive system to decriminalize, control, and regulate the cultivation, processing, manufacture, distribution, testing, and sale of nonmedical marijuana products, for use by adults 21 years and older, and to tax the commercial growth and retail sale of marijuana for recreational use.

The Medicinal and Adult-Use Cannabis and Safety Act (SB 94), adopted in June 2017, reconciles conflicts in regulations between the Medical Cannabis Regulation and Safety Act and the Adult Use of Marijuana Act.

2.3.2 Current State Permitting of Commercial Cannabis Operations

Permitting of commercial cannabis operations (medical and adult use) is handled by the following state agencies under regulations approved in January 2019:

- CDFA: cannabis cultivation (known as CalCannabis Cultivation Licensing) and management of the track and trace program, which will be used statewide to record the inventory and movement of cannabis and cannabis products through the commercial cannabis supply chain (CCR Title 3, Division 8 [Cannabis Cultivation]);

- BCC: permitting of distributors, retailers, testing laboratories, and microbusinesses (CCR Title 42 [Bureau of Cannabis Control]); and

- California Department of Public Health, Manufactured Cannabis Safety Branch: permitting of manufacturers of cannabis products (CCR Title 17, Chapter 13 [Manufactured Cannabis Safety]).

On January 16, 2019, the Office of Administrative Law officially approved state regulations for cannabis businesses.

A summary of state cannabis operation license types is provided in Table 2-1.

Table 2-1 State Cannabis Operation License Types

Name	Description
Cultivation	
Specialty Cottage Outdoor	For outdoor cultivation site with up to 25 mature plants
Specialty Cottage Indoor	For indoor cultivation site with 500 square feet or less of total canopy
Specialty Cottage Mixed-Light Tier 1	For mixed-light cultivation site with 2,500 square feet or less of total canopy and the use of artificial light at a rate of 6 watts per square foot or less
Specialty Cottage Mixed-Light Tier 2	For mixed-light cultivation site with 2,500 square feet or less of total canopy and the use of artificial light at a rate above 6 and below or equal to 25 watts per square foot
Specialty Outdoor	For outdoor cultivation site with less than or equal to 5,000 square feet of total canopy or up to 50 mature plants on noncontiguous plots
Specialty Indoor	For indoor cultivation site with between 501 and 5,000 square feet of total canopy
Specialty Mixed-Light Tier 1	For mixed-light cultivation site with between 2,501 and 5,000 square feet of total canopy and the use of artificial light at a rate of 6 watts per square foot or less
Specialty Mixed-Light Tier 2	For mixed-light cultivation site with between 2,501 and 5,000 square feet of total canopy and the use of artificial light at a rate above 6 and below or equal to 25 watts per square foot
Small Outdoor	For outdoor cultivation site with between 5,001 and 10,000 square feet of total canopy
Small Indoor	For indoor cultivation site with between 5,001 and 10,000 square feet of total canopy
Small Mixed-Light Tier 1	For mixed-light cultivation site with between 5,001 and 10,000 square feet of total canopy and the use of artificial light at a rate of 6 watts per square foot or less
Small Mixed-Light Tier 2	For mixed-light cultivation site with between 5,001 and 10,000 square feet of total canopy and the use of artificial light at a rate above 6 and below or equal to 25 watts per square foot
Medium Outdoor	For outdoor cultivation site with between 10,001 square feet and 1 acre (43,560 square feet) of total canopy
Medium Indoor	For indoor cultivation site with between 10,001 and 22,000 square feet of total canopy
Medium Mixed-Light Tier 1	For mixed-light cultivation site between 10,001 and 22,000 square feet of total canopy and the use of artificial light at a rate of 6 watts per square foot or less
Medium Mixed-Light Tier 2	For mixed-light cultivation site with between 10,001 and 22,000 square feet of total canopy and the use of artificial light at a rate above 6 and below or equal to 25 watts per square foot
Nursery	For nursery cultivating only cannabis
Processor	For processor only trimming, drying, curing, grading, packaging, or labeling cannabis and nonmanufactured cannabis products
Large Outdoor (Note: CDFA will not issue this license until January 1, 2023.)	For outdoor cultivation that uses no artificial lighting for more than 1 acre of total canopy size at one location
Large Indoor (Note: CDFA will not issue this license until January 1, 2023.)	For indoor cultivation that exclusively uses artificial lighting for more than 22,000 square feet of total canopy size at one location

Table 2-1 State Cannabis Operation License Types

Name	Description
Large Indoor (Note: CDFA will not issue this license until January 1, 2023.)	For indoor cultivation using a combination of natural and supplemental artificial lighting at a maximum threshold (which will be determined by the licensing authority) for more than 22,000 square feet of total canopy size at one location
Noncultivation	
Distributor	For the purchase/sale and transport of cannabis or cannabis products for medicinal and adult use between license holders
Distributor-Transport Only	For the transportation of cannabis or cannabis products for medicinal and adult use between license holders
Non-Storefront Retailer (Delivery)	For the retailer who sells cannabis or cannabis products for medicinal and adult use to consumers from licensed premises that are not open to the public and who conducts sales exclusively for delivery
Retailer (Storefront Sales)	For the retailer who sells cannabis or cannabis products for medicinal and adult use to consumers from licensed premises that may be open to the public; sales may also be conducted for delivery
Microbusiness	For microbusiness that may act (in part or whole) as a retailer, distributor, manufacturer (Level 1), and cultivator (less than 10,000 square feet of area) for medicinal and adult use; the microbusiness must engage in at least three of the above commercial cannabis activities
Testing Laboratory	For a laboratory, facility, or entity that offers or performs tests of cannabis or cannabis products
Manufacturing	For a facility that creates cannabis products for medicinal and adult use

Note: CDFA = California Department of Food and Agriculture.

Sources: CDFA 2017; California Bureau of Cannabis Control 2017

2.3.3 Yolo County Cannabis Regulations

On March 22, 2016, in response to the Medical Marijuana Regulation and Safety Act and to effect greater local control, the Board adopted Ordinance Number 1467 adding Chapter 20 to Title 5 of the Yolo County Code regulating medical cannabis cultivation in Yolo County. The Board adopted the initial ordinance as an interim measure to address neighbor complaints and limit harmful environmental impacts while protecting patient access to medical cannabis and currently includes the following provisions:

- allows cultivation of cannabis for personal and medicinal purposes (six plants); however, outdoor cultivation is prohibited within buffer areas specified in the ordinance;
- allows commercial cultivation of cannabis of up to 1 acre of cannabis garden canopy;
- establishes nuisance provisions (odor cannot cause a nuisance);
- establishes a 1,000-foot buffer between cultivation sites and youth-oriented facility, schools, school bus stops, churches, parks and residential treatment facilities;
- establishes a 75-foot buffer between cultivation sites and residences;
- requires background checks of cultivators and property owners;
- establishes a track and trace program, which the tracks each cannabis plant during cultivation, harvest, and distribution; and
- establishes enforcement provisions for violations of the ordinance.

The following notable amendments to the ordinance and cannabis program modifications were implemented since the inception of the Marijuana Cultivation Ordinance:

- October 25, 2016: The ordinance was amended to limit those who could obtain a license to cultivate in Yolo County to individuals who had submitted a complete Notice of Intent with full payment, to the Central Valley Regional Water Quality Control Board (CVRWQCB) by 5:00 p.m. on October 11, 2016. Since there were individuals who had submitted a complete Notice of Intent with full payment to the CVRWQCB by the deadline established by the County, but who had not yet submitted an initial cannabis cultivation license application, the ordinance was further amended on November 7, 2017, to establish a deadline of December 31, 2017, for the submittal of an initial cultivation license by these individuals. These amendments in effect limited the number of eligible licensees in Yolo County to approximately 78.

- October 10, 2017: The Board of Supervisors approved the development of a CLUO and Guiding Principles upon which the ordinance would be based. The CLUO would create a conditional use permit (CUP) process for determining where various cannabis activities should appropriately be located. The CUP would be in addition to the ministerial license, required under the Marijuana Cultivation Ordinance. Ten public outreach meetings were held with residents, property owners, and cultivators to obtain comments on what should be included in the ordinance.

- November 7, 2017: A provision was added to the Marijuana Cultivation Ordinance allowing the licensing of a limited number of nursery and processing facilities as part of a pilot program. In addition, a sunset provision was added that would automatically repeal the ordinance unless a tax measure was put forth to the voters and approved.

- March 6, 2018: The Board adopted Ordinance Number 1495, adding Chapter 18 to Title 3 of the Yolo County Code to impose a County general tax on the gross receipts of commercial cannabis activity in the unincorporated area. A resolution was also approved by the Board on March 6, 2018, to place the cannabis tax measure on the June 5, 2018, ballot. The Board also approved an early implementation development agreement policy for existing licensed cannabis cultivators in Yolo County proposing projects that include indoor or mixed-light (greenhouse) cultivation. (See Section 2.3.4, “Nursery and Processing Facilities Request for Proposals Process and Early Implementation Development Agreements.”)

- April 24, 2018: The Board approved, for public outreach purposes, a draft CLUO based on the Guiding Principles approved on October 10, 2017. Eleven public outreach meetings were held in numerous locations within the County with residents, property owners, and cultivators to obtain public input on the CLUO. Two Planning Commission meetings were also held.

- June 5, 2018: The voters of Yolo County, including those in the incorporated cities, approved Measure K by 79 percent, authorizing the County to impose a general tax on the gross receipts of commercial cannabis activity in unincorporated Yolo County.

- July 24, 2018: The Marijuana Cultivation Ordinance was amended to allow for recreational cannabis activities in addition to medicinal. The amendment also allowed for the issuance of distributor licenses in conjunction with the nursery and processing facilities pilot program when requested under a development agreement. (See Section 2.3.4, “Nursery and Processing Facilities Request for Proposals Process and Early Implementation Development Agreements.”)

- March 12, 2019: The Board adopted Ordinance Number 1509 amending the Marijuana Cultivation Ordinance to allow distribution licenses for existing County licensed cultivators to distribute their own product, broaden penalties for violations of the ordinance, and to provide an onramp for the adoption of early implementation development agreements.

The Marijuana Cultivation Ordinance is administered through the County’s Cannabis Task Force, which is a division of the Department of Community Services. The task force is led by the County’s Cannabis Policy and Enforcement Manager and is made up of three cannabis code enforcement officers, a supervisor, and two sheriff’s detectives. Each of the cannabis code enforcement officers is assigned a caseload of approximately 25 cultivators. Routine site visits are made to ensure compliance with the ordinance, including the track and

trace system. The sheriff's detectives accompany the task force on many of the site visits and assist with compliance activities. They also work on the investigation and abatement of illegal grows. Other Department of Community Services divisions, such as Building, Planning, and Environmental Health, assist the task force on compliance related items under their jurisdictions.

2.3.4 Nursery and Processing Facilities Pilot Program and Early Implementation Development Agreements

The County released a request for proposals in November 2017 to solicit applications for nursery facility and processing facility operations as part of a pilot program under Section 5-20.16 of the Yolo County Code. In addition, on March 6, 2018, the County Board of Supervisors approved an early implementation development agreement policy for existing licensed cannabis cultivators in Yolo County proposing projects that include indoor or mixed-light (greenhouse) cultivation. This process has been refined several times and has been effectively merged with the nursery and processing facilities pilot program described above.

The County is processing nine development agreement applications. Eight of them are existing licensed cultivators who have applied for "early implementation" development agreements, and two of the eight are also applicants for the separate nursery and processing pilot program (Kind Farms and Green Coast Industries [GCI]). The ninth application (Dark Heart) is a pilot program–only applicant. Each of the applicants is seeking a development agreement for a term of 10 years. The applications are currently undergoing separate CEQA reviews, and an environmental initial study will be prepared for each. It is anticipated that for those applications that qualify for a CEQA negative or mitigated negative declaration, the applications will be ready for consideration by the Yolo County Board of Supervisors in 2019. For those applications requiring a CEQA EIR, a lengthier process will be involved. Several of the development agreement applicants have requested that processing of their application temporarily cease while the CLUO is being considered. Processing of these applications may not resume until after adoption of the CLUO, however for the purposes of the cumulative analysis conducted in Chapter 4, "Cumulative Impacts and Overconcentration," of this EIR, these applications are assumed to be in place.

Combined, the development agreement applications seek to vest approximately 12 acres of indoor and mixed-light cultivation canopy on nine sites that total 408 acres countywide. The maximum combined developed area of these applications totals 1,011,824 sq. ft. Spatially, these applications are clustered in the west, central, and northwest areas of the County. One of the applications (Kind Farms) proposes commercial processing and distribution that would serve other cultivators; the others propose ancillary processing and distribution that would serve the on-site needs of the applicant cultivator only. Two of the applications (Dark Heart and GCI) propose commercial nursery facilities; the others propose ancillary nurseries only.

The following discussion briefly summarizes each proposal. Exhibit 2-3 identifies the location of each of these projects and Table 2-2 summarizes each proposal.

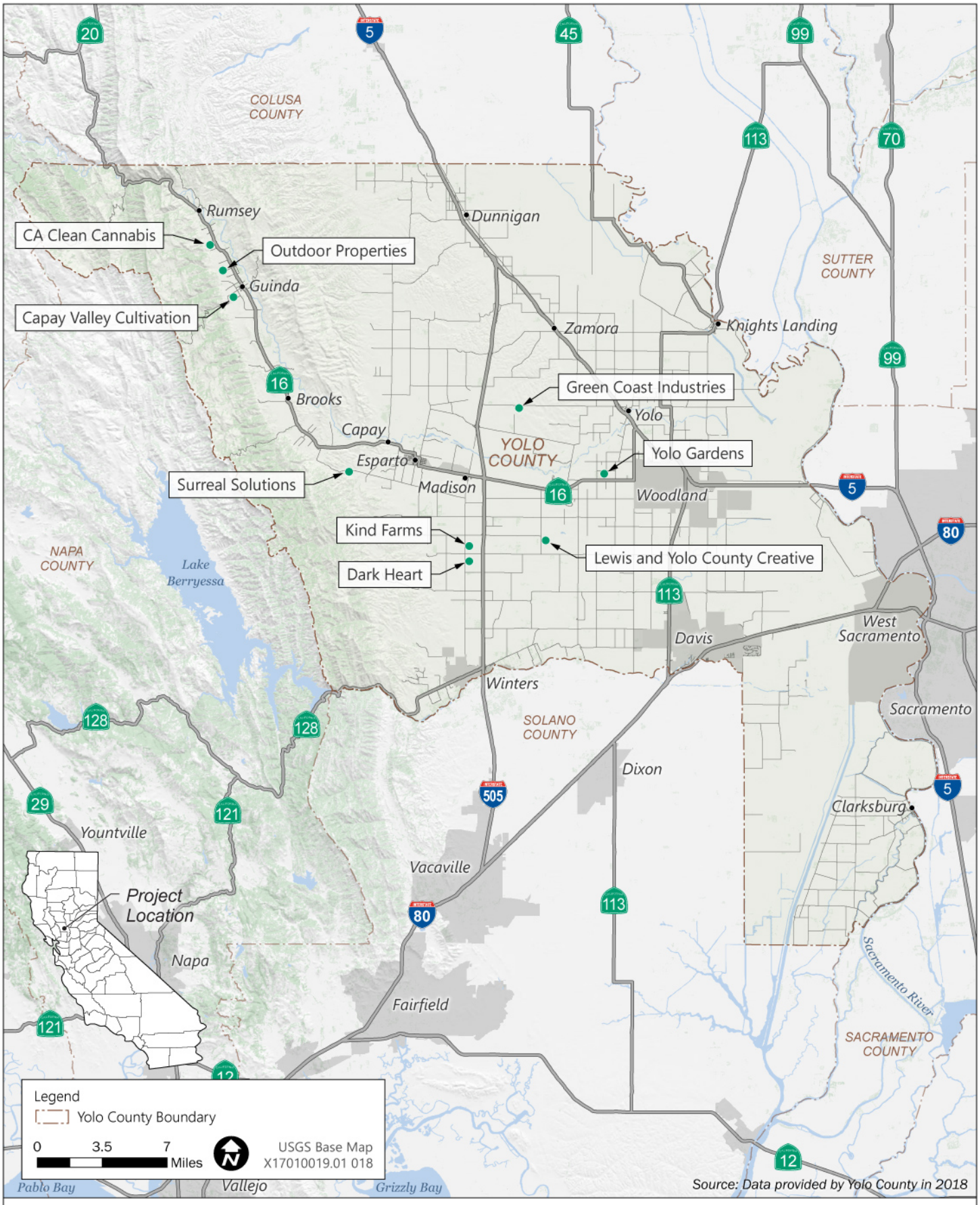


Exhibit 2-3 **Locations of Nursery and Processing Facilities Pilot Program and Early Implementation Development Agreement Sites**

Table 2-2 Summary of Nursery and Processing Facilities Pilot Program and Early Implementation Development Agreements

Name	Total Site Acres	Greenhouse Building Square Footage	Nursery Building Square Footage	Processing Building Square Footage
Kind Farms	20	49,692	n/a	15,120
Surreal	28	56,000	n/a	10,000
Green Coast Industries	40	202,536	101,268	n/a
Lewis and Yolo County Creative	160	224,000	n/a	7,500
Outdoor Properties	20	66,816	n/a	n/a
California Clean Cannabis	42	16,400	n/a	n/a
Capay Valley Cultivation	10	40,320	n/a	5,000
Yolo Gardens	31	96,000	n/a	33,600
Dark Heart	57	n/a	130,000	n/a
Totals	**408**	**751,764**	**231,268**	**71,220**

Kind Farms, currently licensed to cultivate up to 1 acre of canopy on a 20-acre agriculturally zoned parcel, proposes a commercial cannabis processing and distribution operation under the County's nursery and processing facilities pilot program, that would serve other cultivators. The project site is located on County Road 89 between Madison and Winters and has historically been used for animal husbandry and residential uses. Under its existing cultivation license, Kind Farms has obtained permits to construct a greenhouse for mixed-light cultivation. The proposed development agreement would cover the mixed-light cultivation, along with the commercial processing and distribution activities that would serve other cultivators.

GCI currently holds two licenses to cultivate on a co-located site, which consists of two contiguous agriculturally zoned parcels totaling 100 acres. GCI currently cultivates outdoors up to 2 acres of garden canopy. The project site is located on County Road 17, east of Interstate 505, and is maintained in open space or rangeland uses. GCI proposes to construct a commercial nursery under the County's nursery and processing facilities pilot program that would serve other cultivators, in addition to mixed-light cultivation with processing, testing, and distribution for product grown on-site. GCI has obtained permits to construct greenhouses for mixed-light cultivation under its existing licenses. The proposed development agreement would cover the commercial nursery operations that would serve other cultivators, in addition to mixed-light cultivation that would include ancillary processing, testing, and distribution. These latter uses would serve the applicant cultivator and would not serve others.

California (CA) Clean Cannabis currently cultivates under four separate licenses in different locations in the Capay Valley, and primarily grows outdoors and/or in seasonal hoop houses. The development agreement request is for a site located off State Route 16 northwest of Guinda on a 42-acre agriculturally zoned parcel that has historically been family farmed. CA Clean Cannabis proposes to convert existing agricultural structures totaling 16,400 sq. ft. for indoor cultivation, with ancillary packaging and distribution operations, in addition to new greenhouse development for mixed-light cultivation.

Outdoor Properties currently cultivates under an existing license on a 20-acre agriculturally zoned parcel in the Capay Valley. Previous agricultural uses include grazing and pasturing. Outdoor Properties, located on County Road 56 in Guinda, has obtained permits to construct greenhouses under its existing license and proposes to transition its outdoor cultivation operations to mixed-light cultivation. The proposed development agreement would cover the greenhouse development for mixed-light cultivation, along with ancillary processing and distribution for product grown on-site.

Yolo Gardens currently cultivates up to 1 acre of garden canopy outdoors and in greenhouses under an existing cultivation license on a 30-acre agriculturally zoned parcel on County Road 21 that contains a walnut orchard. Yolo Gardens proposes new construction to accommodate mixed-light cultivation in new greenhouses, with nursery, processing, packaging, and distribution operations for product grown on-site, as well as office and storage space. A portion of an existing walnut orchard remains on-site for screening purposes and crop production. Pest management efforts, as approved by the County Agricultural Commissioner are being implemented. The proposed development agreement would cover the mixed-light cultivation and ancillary nursery, processing, packaging, and distribution operations.

Lewis and Yolo County Creative (YCC) currently hold three separate cultivation licenses on two contiguous parcels. Lewis and YCC co-locate on a 120-acre agriculturally zoned parcel that has historically been farmed in rice, and YCC also separately operates on the adjacent 40-acre agriculturally zoned parcel that has been primarily used for residential purposes. The co-located site is located on County Road 93, and consists of up to 3 acres of garden canopy outdoors and proposed greenhouse development for mixed-light cultivation with processing, curing, and storage of cannabis. The co-located operation would be ancillary only and would not serve other cultivators. Lewis and YCC intend to continue tenant farming operations (row crops) on the remainder of the 120-acre parcel. The proposed development agreement would cover greenhouse development for the transition from outdoor cultivation to mixed-light cultivation and ancillary uses. The applicants propose phased development that includes both the 40-acre parcel and 120-acre parcel. Phase 1 would include development of one greenhouse on the 40-acre parcel. Phase 2 would involve construction of the first greenhouse on the 120-acre parcel, and YCC outdoor cultivation would be moved into the first greenhouse. During Phase 3, the YCC license on the co-located site would move into the second greenhouse, and Lewis would continue to cultivate outdoors on the 120-acre site. In Phase 4, which would be implemented 4 years after approval, the operator would construct a third greenhouse for Lewis to transition to mixed light upon completion.

Surreal Solutions currently cultivates up to 1 acre of outdoor garden canopy under an existing license on a 28-acre agriculturally zoned parcel located at the end of County Road 23, southwest of Esparto. The property is otherwise maintained in open space uses. Surreal Solutions proposes mixed-light cultivation in greenhouses in addition to processing operations for cannabis grown on-site. The proposed development agreement would cover the transition from outdoor cultivation to mixed-light cultivation in greenhouses with ancillary uses.

Capay Valley Cultivation (Jeremy Benny) currently cultivates up to 1 acre of garden canopy outdoors and in hoop houses under an existing cultivation license in the Capay Valley. The project site is located on County Road 45 in Guinda on a 10-acre agriculturally zoned parcel that was primarily used as a home site. Jeremy Benny has obtained permits under its existing license to construct greenhouses for mixed-light cultivation. The proposed development agreement would cover the development of greenhouses for mixed-light cultivation, as well as ancillary processing, curing, and storage of cannabis.

Dark Heart Nursery proposes a commercial nursery that would serve cannabis operations, as allowed under the County's nursery and processing facilities pilot program. Dark Heart Nursery is not currently licensed to cultivate in Yolo County, and the proposal is limited to nursery operations totaling 130,000 sq. ft. The project site is located on a 57-acre agriculturally zoned parcel, located on County Road 89, that is currently cultivated in rice. The proposed development agreement would cover development of the project site for commercial cannabis nursery operations that would serve other cannabis operators.

2.3.5 Hemp

On December 20, 2018, President Trump signed H.R. 2, the Agriculture Improvement Act of 2018 (the 2018 Farm Bill) into law, which removed industrial hemp from the federal list of controlled substances and authorizes the U.S. Department of Agriculture to create quality control standards for commercial hemp production, also giving states that desire to have primary regulatory authority over the production of hemp

the ability to adopt their own state plans. The state plan may include a reference to a state law regulating the production of hemp, to the extent consistent with federal law. The Department of Agriculture has not yet promulgated regulations for the approval of state or tribal plans for the cultivation of industrial hemp, and is not expected to do so until sometime in 2020.

The California Department of Food and Agriculture (CDFA) has adopted regulations for the registration fee for growers of industrial hemp for commercial purposes and seed breeders in California, 3 C.C.R. Section 4900, effective April 25, 2019, and for the pre-harvest sampling and testing of industrial hemp as emergency regulations, 3 C.C.R. Sections 4940 – 4946; 4950 – 4950.1, which went into effect June 10, 2019.

The regulations adopted by the CDFA do not require testing of industrial hemp product for purity (free of pesticides, mold, heavy metals, contaminants, etc.), potency or labeling of cannabinoid content and thus do not include safeguards to protect the health of hemp consumers. Currently, industrial hemp is not considered an approved source of cannabidiol (CBD) to be added to food products.

Due to the fact that industrial hemp and cannabis are derivatives of the same plant, Cannabis sativa L., the appearance and odor of industrial hemp and cannabis are indistinguishable, particularly when hemp is cultivated with feminized flowering plants for high levels of CBD for purposes of CBD extract or oil production.

Absent a laboratory performed chemical analysis for tetrahydrocannabinol (THC) content, or expensive specialized chemical field analysis equipment, the two plants cannot be distinguished. Neither the Sheriff's Office nor the Cannabis Task Force can verify that product is permissible industrial hemp and not cannabis intended for sale in the illicit market. The registration requirement for hemp growers, however, should help distinguish between lawful hemp cultivation and illegal cannabis grows.

Cannabis and hemp can cross pollinate because they are cultivars of the same plant. If this occurs, the cannabis THC levels can be reduced, reducing its market value, while the hemp THC levels can be increased, raising levels above legal limits and requiring the destruction of the crop. It is not yet known how far pollen can travel. Controls are available, including buffers and restrictions on the cultivation of male hemp plants, to reduce the potential for cross-pollination.

Industrial hemp can serve as a host to mites and other insects. At this time, there are no pesticides registered for hemp that specifically address such mites or other insects. The pesticides that have been approved for hemp are not always effective, which allows for such insects to move into other nearby crops.

As an urgency measure, on January 15, 2019 the Board of Supervisors established a temporary moratorium on the cultivation of industrial hemp for commercial purposes or by "Established Agricultural Research Institutions," as defined by California Food and Agricultural Code Section 81000(c), to give the County the opportunity to study the issue and to formulate and adopt regulations to mitigate or avoid negative effects of such grows, namely the potential for the cross pollination of hemp and cannabis which can damage cannabis grows. Potential solutions may include buffers between cannabis and hemp grows and/or pre-plotting of cannabis and hemp production similar to the current process for sunflower cultivation. On February 26, 2019 the Board acted to further extend the moratorium for ten months and 15 days.

While the focus of the proposed CLUO and CLUO Draft EIR does not explicitly include hemp activities, to the extent that specific hemp activities share similarities to the described cannabis activities, the CLUO could be modified to cover hemp explicitly. The Draft EIR is potentially of sufficient scope and content to provide appropriate CEQA impact analysis of hemp as a subset of cannabis if the County elects to implement a discretionary permitting process for hemp cultivation. Alternatively, the County could opt to regulate hemp differently, such as by requiring grower registration consistent with state law without any significant accompanying local regulations. This Draft EIR does not attempt to predict how the County will address hemp and the discussion of this topic is included in anticipation of questions that may arise concerning hemp and cannabis as emerging agricultural crops.

2.4 PROPOSED YOLO COUNTY CANNABIS LAND USE ORDINANCE

The County is considering five alternative variations to the CLUO, all of which rely on the same underlying regulatory requirements that would regulate cannabis activities through land use, zoning, and development standards. The alternatives, which vary by type of cannabis license/activity, limits on the number of operations, and performance standards, are described in Section 2.4.3, "Cannabis Land Use Ordinance Alternatives," and Table 2-3. The County has identified Alternative 1 as the CEQA preferred alternative. In Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures," Chapter 4, "Cumulative Impacts and Overconcentration," and Chapter 6, "Other CEQA-Mandated Sections," the alternatives are evaluated at an equal level of detail.

2.4.1 Project Background

The Public Review Draft CLUO was released April 24, 2018, for review and comment. Based on public, agency, neighbor, and industry input, County staff subsequently identified additional proposed changes to the draft ordinance to clarify the proposed regulations. These staff-initiated clarifications are reflected in Appendix C (Revised Public Review Draft CLUO) in strike-out/underline format and constitute "the project" for the analysis conducted in this EIR. Text marked in yellow highlight reflects where there are differences between the proposed alternatives.

The CLUO would add Article 14 to Title 8, Chapter 2, of the Zoning Regulations within the Yolo County Code. It would regulate all cannabis operations within the unincorporated area. Specific land use requirements and development performance standards are included in the CLUO that address, among many topics, the following environmental issues:

- agricultural applications,
- agricultural maintenance,
- biological resources,
- buffers from defined sensitive land uses,
- cultural resources,
- drainage and flooding,
- driveway design and access,
- dust control,
- energy use,
- environmental protection,
- fire protection,
- flood protection,
- generators,
- good neighbor communication,
- grading and land clearing,
- hazardous materials,
- lighting,
- noise control,
- nuisance,
- odor control,
- screening,
- security,
- tree protection,
- wastewater discharge,
- solid waste management, and
- water supply and use.

Table 2-3 Comparison of Cannabis Land Use Ordinance Alternatives

Key Assumption Between Alternatives	Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)[1]	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types	Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
License types assumed	Personal Cultivation Nurseries* Processing* *in support of cultivation only	Personal Cultivation Nurseries Processing Manufacturing Testing Distribution Retail[2] Microbusiness	Personal Cultivation Nurseries Processing Manufacturing Testing Distribution Retail[2] Microbusiness	Personal – Indoor Only Cultivation – Indoor and Mixed Light Nurseries – Indoor and Mixed-Light Processing – Indoor Only Manufacturing Testing Distribution Retail[2] Microbusiness – Indoor and Mixed-Light	Personal Cultivation Nurseries Processing Manufacturing Testing Distribution Microbusiness
Limits on number of operations assumed[3,4]	Personal: unlimited Cultivation: 78 TOTAL: 78+	Personal: unlimited Cultivation: 80 Nurseries: 5 Processing: 5 Manufacturing: 20 Testing: 5 Distribution: 10 Retail: 2 Retail/nonstore: unlimited Microbusiness: 5 TOTAL: 132+	Personal: unlimited Cultivation: 160 Nurseries: 10 Processing: 10 Manufacturing: 40 Testing: 10 Distribution: 20 Retail: 4 Retail/nonstore: unlimited Microbusiness: 10 TOTAL: 264+	Personal: unlimited Cultivation: 80 Nurseries: 5 Processing: 5 Manufacturing: 20 Testing: 5 Distribution: 10 Retail: 2 Retail/nonstore: unlimited Microbusiness: 5 TOTAL: 132+	Personal: unlimited Cultivation: 80 Nurseries: 5 Processing: 5 Manufacturing: 20 Testing: 5 Distribution: 10 Microbusiness: 5 TOTAL: 130+
Zoning districts assumed	Personal: A, R, C, I Cultivation Outdoor: A Cultivation Indoor: A, I, C-G/C-H Cultivation Mixed: A, I, C-G/C-H Nurseries: A, I Processing: A, I, C-G/C-H	Personal: A, R, C, I Cultivation Outdoor: A Cultivation Indoor: A, I, C-G/C-H Cultivation Mixed: A, I, C-G/C-H Nurseries: A, I Processing: A, I, C-G/C-H Manufacturing: A, I Testing: A, I Distribution: A, I Retail: C, I Microbusiness: A, I, C-G/C-H	Personal: A, R, C, I Cultivation Outdoor: A Cultivation Indoor: A, I, C-G/C-H Cultivation Mixed; A, I, C-G/C-H Nurseries: A, I Processing: A, I, C-G/C-H Manufacturing: A, I, C-G/C-H Testing: A, I Distribution: A, I, C-G/C-H Retail: C, I Microbusiness: A, I, C-G/C-H	Personal: A, R C, I Cultivation Indoor: A, I, C-G/C-H Nurseries: A, I Processing: A, I, C-G/C-H Manufacturing: A, I, C-G/C-H Testing: A, I Distribution: A, I, C-G/C-H Retail: C, I Microbusiness: A, I, C-G/C-H	Personal: Indoor in A, R, C, I; Outdoor in A only Cultivation: A Nurseries: A Processing: A Manufacturing: A Testing: A Distribution: A Microbusiness: A

Table 2-3 Comparison of Cannabis Land Use Ordinance Alternatives

Key Assumption Between Alternatives	Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)[1]	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types	Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
Controls on overconcentration assumed	No	Yes	Yes	Yes	No
Special buffers from identified sensitive uses assumed[5]	1,000-foot buffers[6] 75 feet from individual residences	1,000-foot buffers[6] 1,000 feet from individual residences	75-foot buffers[6] 75 feet from individual residences	None	1,000-foot buffers[6] 1,000 feet from individual residences

Notes:

A = Agricultural zones; C = Commercial zones; C-G = Commercial-General; C-H = Commercial Highway; I = Industrial zones; R = Residential zones.

1 The Board of Supervisors will examine all five alternatives and may choose one of the five alternatives or a combination. No position on the contents of the final ordinance should be assumed from the choice of Alternative 1 as the preferred alternative (Board of Supervisors meeting April 24, 2018).

2 Except special events.

3 These assumptions are for purposes of the EIR analysis. The Board of Supervisors retains the ability to decide whether to include these limits as part of the ordinance.

4 Except for personal use.

5 Buffers apply to outdoor cannabis uses as identified in Section 8-2.1408(e).

6 Buffers from "residentially designated land" would not apply to outdoor Personal use as that would eliminate the possibility of outdoor Personal cultivation which in not the intent.

As noted above, the County is considering a range of alternative approaches to sections of the CLUO related to the extent of allowed cannabis uses, performance standards and buffers, and concentration of cannabis operations in regions of the County. The alternatives, which are evaluated at an equal level of detail in this EIR, are summarized below. For the purposes of CEQA, which requires the identification of a preferred alternative, the County has identified Alternative 1 as the preferred alternative/proposed project.

2.4.2 Project Objectives

The overall purpose of the CLUO is to add Article 14 (Cannabis Land Use Ordinance) to Title 8, Chapter 2, Zoning Regulations, of the Yolo County Code, establishing new Zoning Regulations to control cannabis operations throughout the unincorporated area. These regulations are separate and distinct from the cannabis licensing regulations currently in Chapter 20 of Title 5 of the Yolo County Code, which will ultimately be modified and moved to a new Chapter 4 in Title 12. The primary objectives of the CLUO are identified in Section 8-2.1402 of the Draft CLUO as follows:

A. Protect the public health, safety, and welfare.

B. Protect environmental resources and minimize environmental impacts.

C. Ensure neighborhood compatibility.

D. Ensure safe access to medical cannabis for patients.

E. Support agricultural economic development including recognition of valuable new crops, preservation of agricultural land, and creation of opportunities for new farmers.

F. Recognize cannabis as an agricultural crop with unique challenges including Federal classification, legal history, crop value, transaction security, distinct odor, and energy and water requirements.

G. Recognize competing and evolving community values and interests related to the cannabis industry.

H. Avoid establishing undesirable precedents for other agricultural sectors.

I. Avoid unintended consequences including unforeseen community impacts and over-regulation that drives cannabis activities underground.

J. Allow for adaptation to changing market, cultural, and regulatory considerations over time.

K. Acknowledge the will of the voters in passing Proposition 64, Marijuana Legalization, in 2016.

2.4.3 Cannabis Land Use Ordinance Alternatives

ALTERNATIVE 1: CULTIVATION (ANCILLARY NURSERIES AND PROCESSING ONLY) WITH EXISTING LIMITS (EXISTING OPERATIONS WITH CLUO) (CEQA PREFERRED ALTERNATIVE)

Alternative 1 assumes that existing personal use and commercial cannabis cultivation (including on-site nurseries and processing that provides support to the cultivation operation) would continue to operate but under the requirements of the new CLUO, in addition to the existing County licensing ordinance, rather than solely under the provisions of the existing licensing ordinance. There are currently 78 existing and eligible cultivators in the County. This alternative assumes 78 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 78 operations

This alternative includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences, and 1,000-foot buffers between outdoor cannabis uses and the following uses: residentially designated lands, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

Exhibit 2-4 identifies the distribution of cannabis cultivation under Alternative 1 throughout the unincorporated area. Under this Alternative, implementation of the CLUO could result in relocation of nine existing and eligible cultivation sites to meet the assumed buffering and zoning requirements identified in Table 2-3.

ALTERNATIVE 2: ALL LICENSE TYPES WITH MODERATE LIMITS

Alternative 2 assumes that all types of cannabis operations would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 existing operations from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

Exhibit 2-5 identifies the assumed distribution of these cannabis uses under Alternative 2. This distribution is based on current licensed cultivation operations in the County, review of cannabis applications received in response to the nursery and processing facilities pilot program and the early implementation development agreements for cannabis operations, and input from County staff based on an understanding of the local cannabis industry and an intent to reflect reasonable dispersion assumptions for purposes of the environmental impact analysis. Vertical integration of new cannabis uses is also assumed to occur under this alternative.

Alternative 2 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions, (for example, within the defined comment areas of the County's citizen's advisory committees) (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 1,000-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

Under this Alternative, Implementation of the CLUO would require relocation of 30 existing and eligible cultivation sites to meet the buffering and zoning requirements identified in Table 2-3.

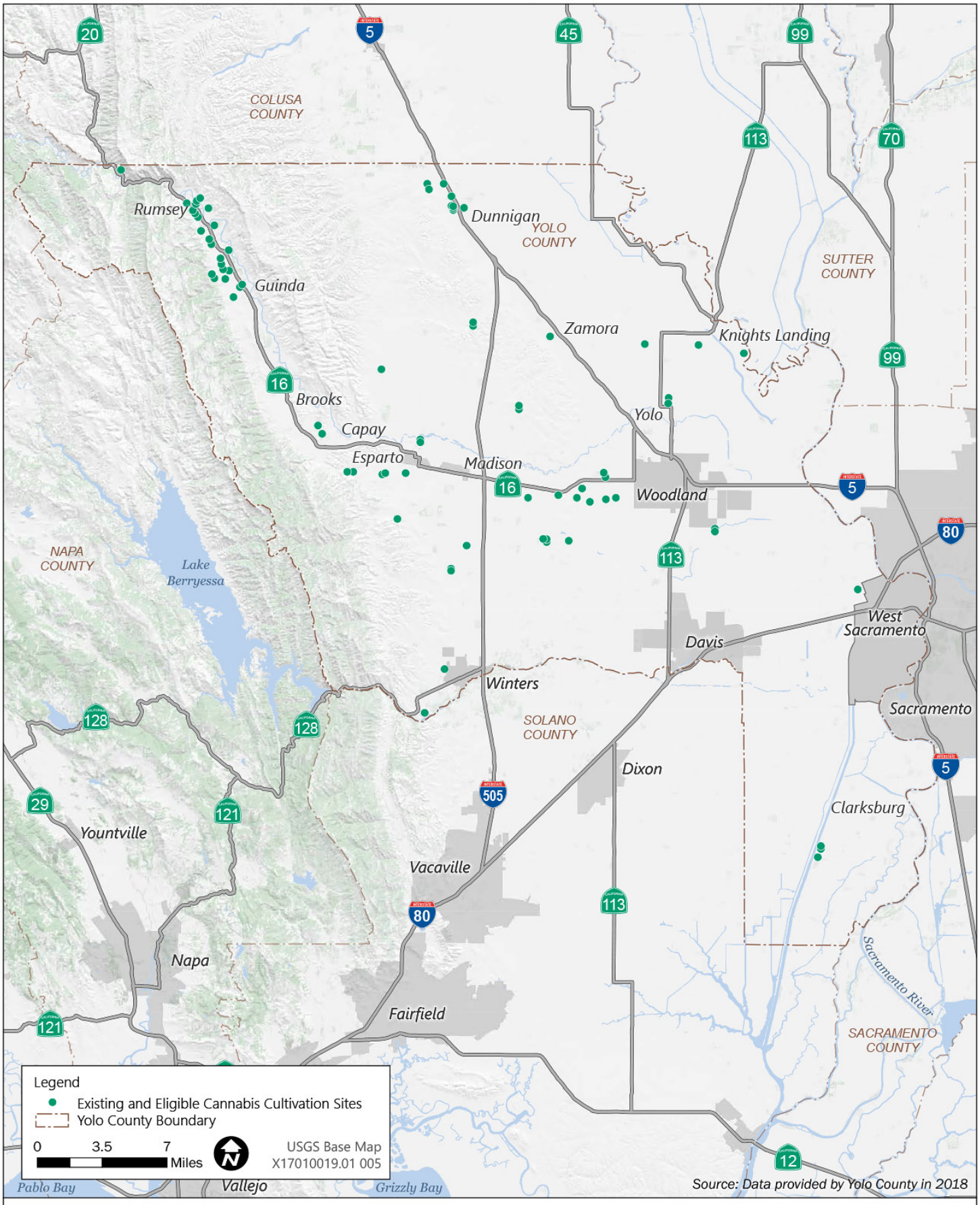


Exhibit 2-4

Alternative 1 Cannabis Uses

ASCENT ENVIRONMENTAL

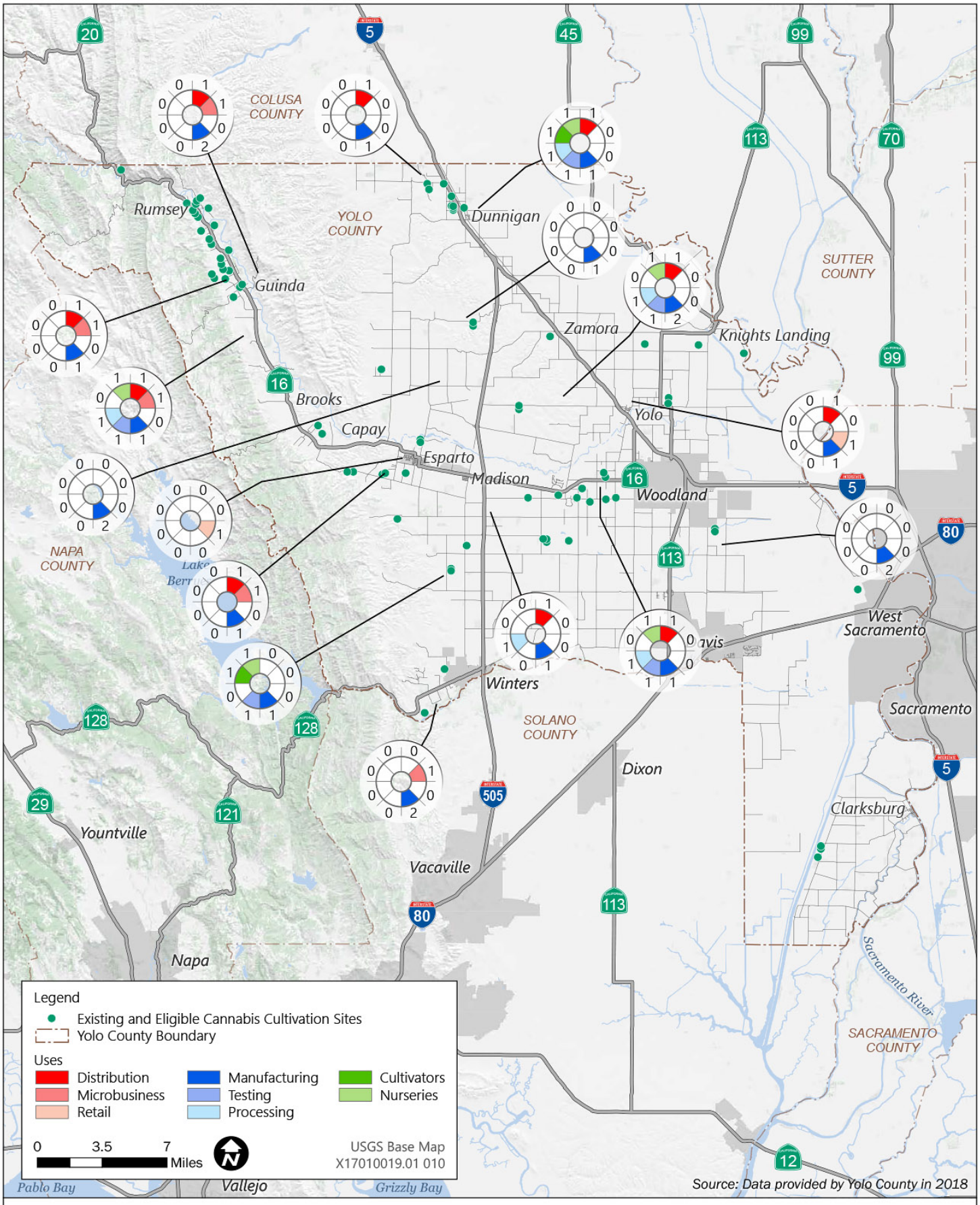


Exhibit 2-5

Alternative 2 Cannabis Uses

ALTERNATIVE 3: ALL LICENSE TYPES WITH HIGH LIMITS

Alternative 3 assumes that all types of cannabis operations would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusiness. As defined, implementation of this alternative would result in 264 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 160 (includes 78 existing operators from Alternative 1)
- nurseries: 10
- processing: 10
- manufacturing: 40
- testing: 10
- distribution: 20
- retail: 4
- microbusiness: 10

Exhibit 2-6 identifies the assumed distribution of these cannabis uses under Alternative 3. This distribution is based on current licensed cultivation operations in the County, review of cannabis applications received in response to the nursery and processing facilities pilot program and the early implementation development agreements for cannabis operations, and input from County staff based on an understanding of the local cannabis industry and an intent to reflect reasonable dispersion assumptions for purposes of the environmental impact analysis. Vertical integration of new cannabis uses is also assumed to occur under this alternative. Alternative 3 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions; for example, within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). This alternative also includes 75-foot buffers between outdoor cannabis uses and occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 75-foot buffer from residentially designated lands, as this would have the unintended effect of prohibiting such use entirely.

Under this alternative, implementation of the CLUO could require relocation of nine existing and eligible cultivation sites to meet the buffering and zoning requirements identified in Table 2-3.

ALTERNATIVE 4: MIXED-LIGHT/INDOOR LICENSE TYPES ONLY WITH MODERATE LIMITS, NO HOOP HOUSES OR OUTDOOR TYPES

Alternative 4 assumes that personal cultivation, commercial cannabis cultivation, nurseries, processing, and microbusinesses would be limited to indoor and mixed-light operations within a structure. It is assumed that 75 of the existing and eligible cannabis cultivation sites with outdoor cultivation would convert entirely to indoor or mixed-light cultivation in greenhouses or indoor buildings. As defined, implementation of this alternative would result in 132 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal (indoor only): unlimited
- cultivation: 80 (includes 78 existing operators from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- retail: 2
- microbusiness: 5

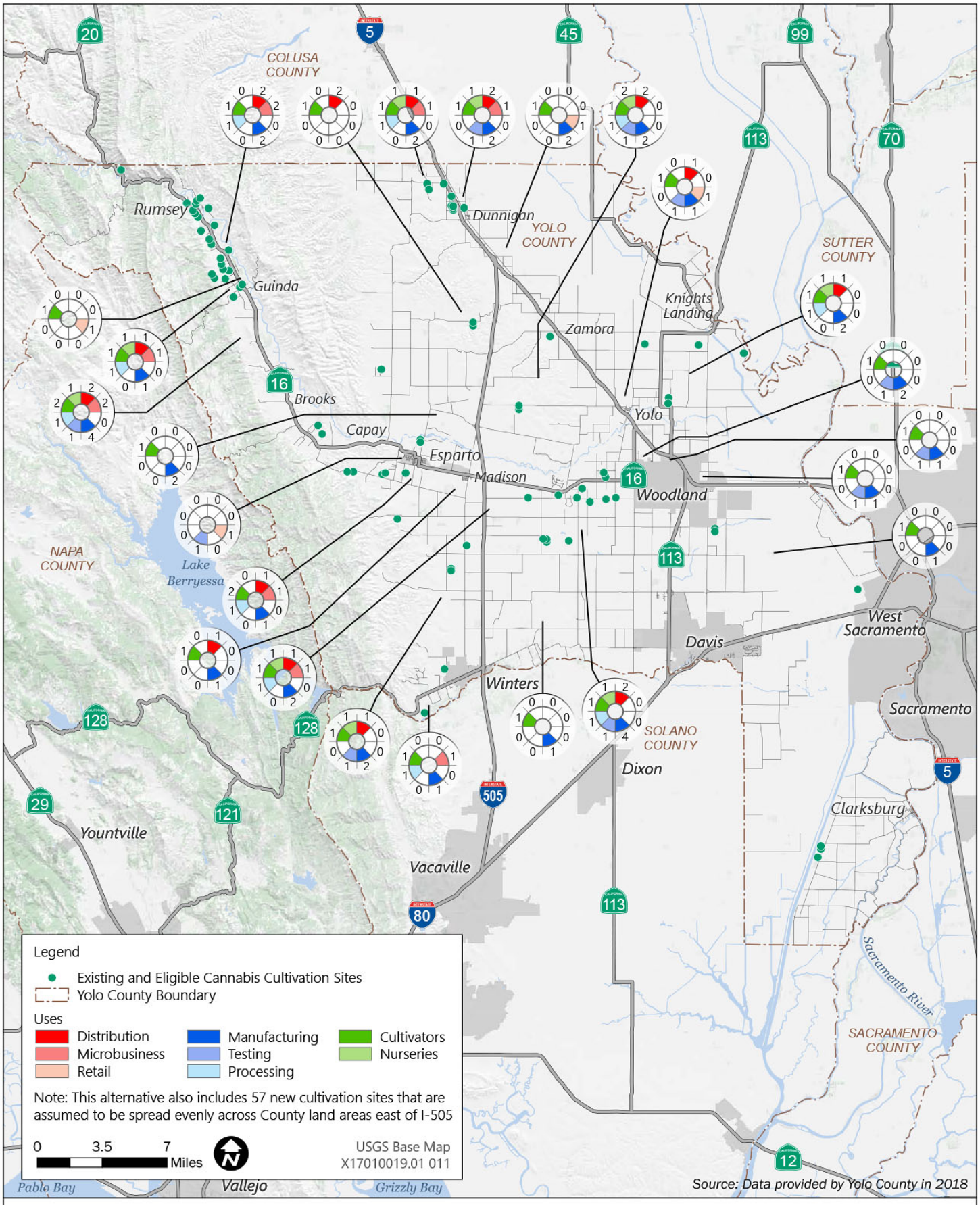


Exhibit 2-6 **Alternative 3 Cannabis Uses**

Exhibit 2-7 identifies the assumed distribution of these cannabis uses under Alternative 5. This distribution is based on current licensed cultivation operations in the County, review of cannabis applications received in response to the nursery and processing facilities pilot program and the early implementation development agreements for cannabis operations, and with input from County staff based on an understanding of the local cannabis industry and an intent to reflect reasonable dispersion assumptions for purposes of the environmental impact analysis. Vertical integration of new cannabis uses is also assumed to occur under this alternative. This would apply to all outdoor personal cultivation as well.

Alternative 4 includes the ability of the County to establish by resolution limits on the number of cannabis operations to avoid the overconcentration of such uses in distinct subregions (for example, within the defined comment areas of the County's citizen's advisory committees (see Section 8-2.1406(H) of the proposed CLUO). Under this alternative, implementation of the CLUO could require relocation of nine existing and eligible cultivation sites to meet the zoning requirements identified in Table 2-3. Because no outdoor cannabis activities are allowed under this alternative, it does not include buffers from identified sensitive land uses.

ALTERNATIVE 5: ALL LICENSE TYPES WITH MODERATE LIMITS, WITHIN AGRICULTURAL ZONES ONLY, NO RETAIL

Alternative 5 assumes all license types, with the exception of retail, but would limit commercial cannabis (including personal outdoor grows) to agricultural zone districts. Personal indoor grows would be allowed in all zoning districts. As defined, implementation of this alternative would result in 130 cannabis operations countywide plus unlimited cultivation for personal use conducted in accordance with applicable state and local (County) laws:

- personal: unlimited
- cultivation: 80 (includes 78 existing operators from Alternative 1)
- nurseries: 5
- processing: 5
- manufacturing: 20
- testing: 5
- distribution: 10
- microbusiness: 5

Exhibit 2-8 identifies the assumed distribution of these cannabis uses under Alternative 5. This distribution is based on current licensed cultivation operations in the County, review of cannabis applications received in response to the nursery and processing facilities pilot program and the early implementation development agreements for cannabis operations, and input from County staff based on an understanding of the local cannabis industry and an intent to reflect reasonable dispersion assumptions for purposes of the environmental impact analysis. Vertical integration of new cannabis uses is also assumed to occur under this alternative. Alternative 5 does not assume specific regulation of over-concentration. This alternative includes 1,000-foot buffers between outdoor cannabis uses and the following uses: occupied off-site residences and residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers. Personal outdoor grows would be required to meet the above buffering requirements with the exception of the 1,000-foot buffer from residentially designated lands, as that would have the unintended effect of prohibiting such use entirely.

Under this alternative, implementation of the CLUO would require relocation of 30 existing and eligible cultivation sites to meet the buffering and zoning requirements identified in Table 2-3.

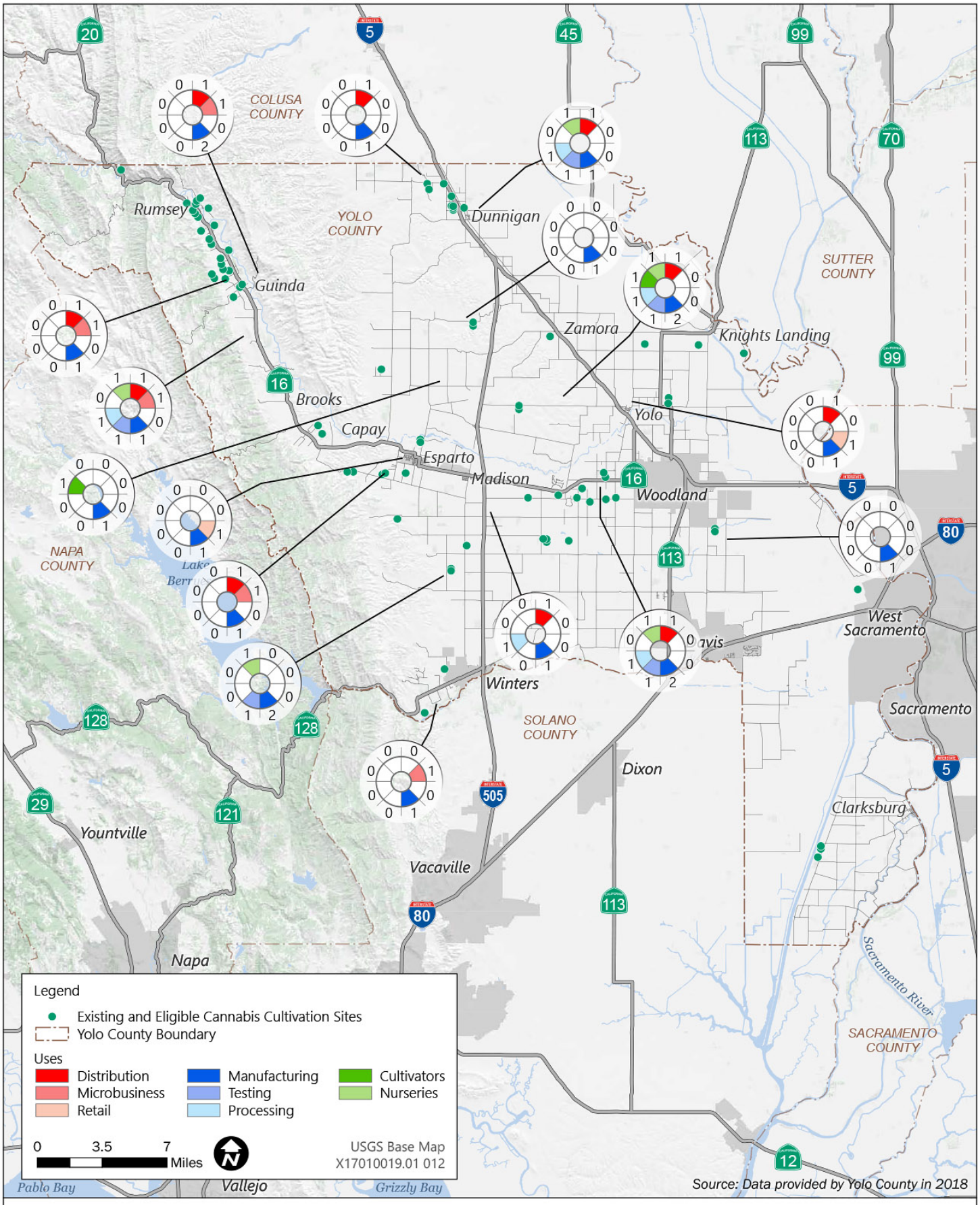


Exhibit 2-7

Alternative 4 Cannabis Uses

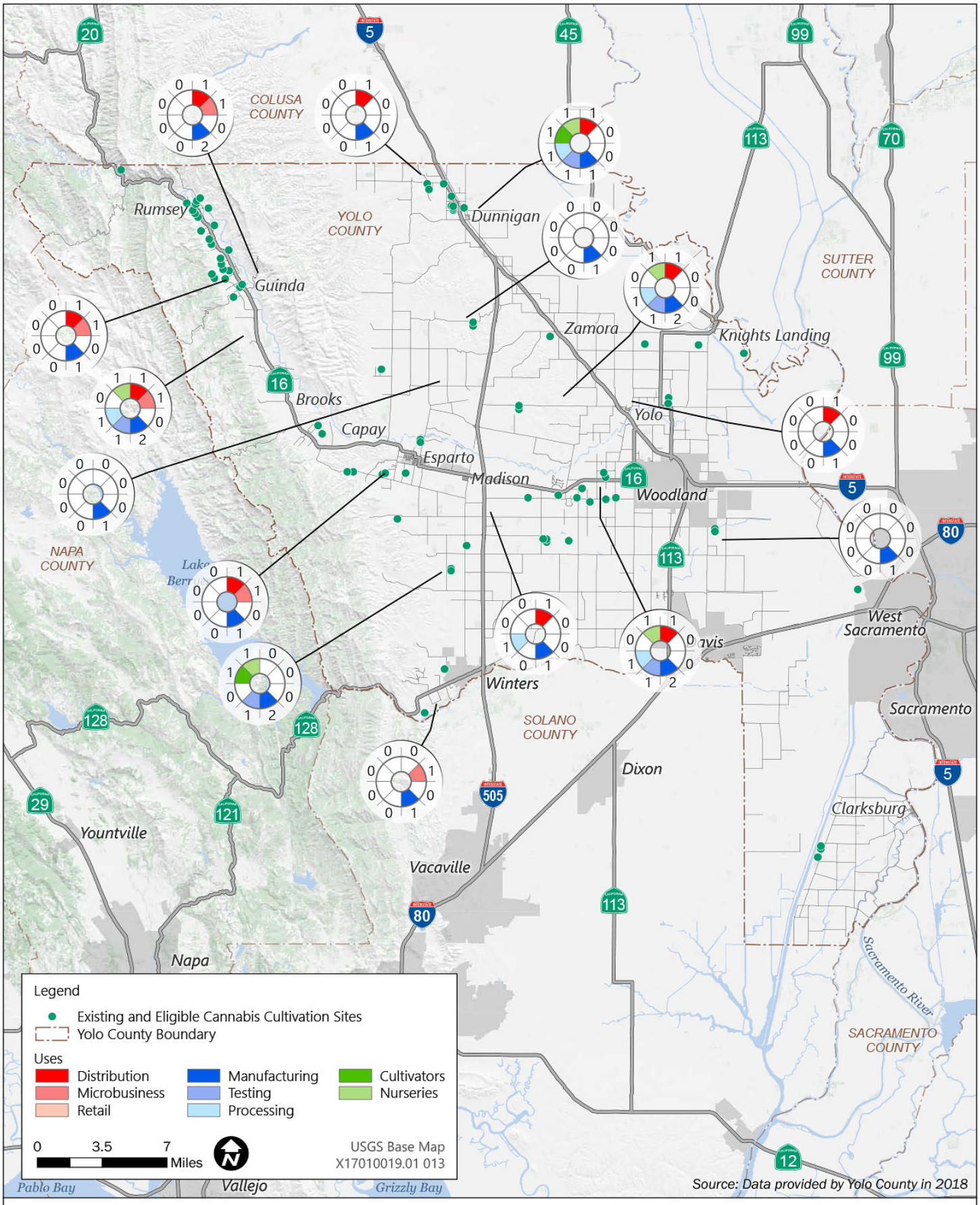


Exhibit 2-8

Alternative 5 Cannabis Uses

DEVELOPMENT AND OPERATION ASSUMPTIONS BY ALTERNATIVE

Table 2-4 identifies the extent of cannabis use development assumed in the EIR analysis. These assumptions are based on existing characteristics of cannabis operations in the County, review of cannabis applications received in response to the nursery and processing facilities pilot program and the early implementation development agreements for cannabis operations (see Section 2.3.4), information from noncultivation use applications from other local jurisdictions and information provided by cannabis operators in the County. Assumptions used in the EIR for construction and operation of cannabis uses is provided in Appendix D.

Table 2-4 Alternative Development Assumptions

Feature	Alternative[1]				
	1	2	3	4	5
Cultivation Uses					
Outdoor Cultivation					
Total Cultivation Garden Canopy (acres)[2]	63	64	128	0	64
Total Land Area for Assumed Activity Footprint (acres)[2]	126	128	256	0	128
Total Building Area (square footage)[3]	2,803,500	2,848,000	5,696,000	n/a	2,848,000
Total Number of Full-Time Equivalent Employees[4]	284	288	576	n/a	288
Total Number of Seasonal Employees[5]	1,197	1,216	2,432	n/a	1,216
Maximum Number of Harvests in a Year[6]	3	3	3	n/a	3
Mixed-Light Cultivation[7]					
Total Cultivation Garden Canopy (acres)[2]	13	14	27	68	14
Total Land Area for Assumed Activity Footprint (acres)[2]	26	28	54	136	28
Total Building Area (square footage)[3]	1,479,283	1,593,074	3,072,357	7,737,788	1,593,074
Total Number of Full-Time Equivalent Employees[4]	364	392	756	1,904	392
Maximum Number of Harvests in a Year[6]	4	4	4	4	4
Indoor Cultivation[7]					
Total Cultivation Garden Canopy (acres)[2, 11]	2	2	5	12	2
Total Land Area for Assumed Activity Footprint (acres)[2]	4	4	10	24	4
Total Building Area (square footage)[3]	88,000	88,000	220,000	528,000	88,000
Total Number of Full-Time Equivalent Employees[4]	35	35	88	211	35
Maximum Number of Harvests in a Year[6]	4	4	4	4	4
Cultivation Totals					
Total Number of Cultivation Sites	***78***	***80***	***160***	***80***	***80***
Total Cultivation Garden Canopy (acres)	*78*	*80*	*160*	*80*	*80*
Total Land Area for Assumed Activity Footprint (acres)	*156*	*160*	*320*	*160*	*160*
Total Building Area (square footage)	*4,370,763*	*4,529,074*	*8,988,357*	*8,265,788*	*4,529,074*
Total Number of Full-Time Equivalent Employees	*683*	*715*	*1,420*	*2,115*	*715*
Total Number of Seasonal Employees	*1,197*	*1,216*	*2,432*	*n/a*	*1,216*

Table 2-4 Alternative Development Assumptions

Feature	Alternative[1]				
	1	2	3	4	5
Noncultivation Uses					
Nurseries					
Total Number of Nurseries	n/a	5	10	5	5
Total Building Area (square footage)[3]	n/a	700,000	1,400,000	700,000	700,000
Total Land Area for Assumed Activity Footprint for Nursery Operation (acres)[3]	n/a	75	150	75	75
Total Number of Full-Time Equivalent Employees[4]	n/a	360	720	360	360
Processing					
Total Number of Processing Facilities	n/a	5	10	5	5
Total Building Area (square footage)[3]	n/a	32,500	65,000	32,500	32,500
Total Land Area for Assumed Activity Footprint for Processing Facilities (acres)[3]	n/a	3	5	3	3
Number of Full-Time Equivalent Employees[4]	n/a	13	25	13	13
Total Number of Seasonal Employees[5]	n/a	20	40	20	20
Manufacturing					
Total Number of Manufacturing Facilities	n/a	20	40	20	20
Building Area (square footage)[8]	n/a	54,000	108,000	54,000	54,000
Total Land Area for Assumed Activity Footprint for Manufacturing Facilities (acres)[8]	n/a	10	20	10	10
Number of Full-Time Equivalent Employees[8]	n/a	200	400	200	200
Testing					
Total Number of Testing Facilities	n/a	5	10	5	5
Building Area (square footage)[9]	n/a	14,000	28,000	14,000	14,000
Total Land Area for Assumed Activity Footprint for Testing Facilities (acres)[8]	n/a	3	5	3	3
Number of Full-Time Equivalent Employees[9]	n/a	30	60	30	30
Distribution					
Number of Distribution Facilities	n/a	10	20	10	10
Building Area (square footage)[3]	n/a	10,000	20,000	10,000	10,000
Total Land Area for Assumed Activity Footprint for Distribution Facilities (acres)[3]	n/a	3	5	3	5
Number of Full-Time Equivalent Employees[4]	n/a	20	40	20	20
Retail					
Number of Retail Facilities	n/a	2	4	2	n/a
Building Area (square footage)[3]	n/a	4,800	9,600	4,800	n/a
Total Land Area for Assumed Activity Footprint for Retail Facilities (acres)[3]	n/a	1	2	1	n/a
Number of Full-Time Equivalent Employees[4]	n/a	32	64	32	n/a
Microbusiness					
Number of Microbusinesses	0	5	10	5	5
Building Area (square footage)[10]	n/a	7,500	15,000	7,500	7,500

Table 2-4 Alternative Development Assumptions

Feature	Alternative[1]				
	1	2	3	4	5
Total Land Area for Assumed Activity Footprint for Microbusinesses (acres)[10]	n/a	3	5	3	3
Number of Full-Time Equivalent Employees[10]	n/a	45	90	45	45
Noncultivation Totals					
Total Number of Sites	*n/a*	*52*	*104*	*52*	*50*
Total Land Area for Assumed Activity Footprint (acres)	*n/a*	*100*	*197*	*100*	*99*
Total Building Area (square footage)	*n/a*	*822,800*	*1,645,600*	*822,800*	*818,000*
Total Number of Full-Time Equivalent Employees	*n/a*	*700*	*1,399*	*700*	*668*
Grand Totals					
Combined Total Number of Sites/Facilities	*78*	*132*	*264*	*132*	*130*
Combined Total Land Area for Assumed Activity Footprint (acres)	*156*	*260*	*517*	*260*	*259*
Combined Total Building Area (square footage)	*4,370,763*	*5,351,874*	*10,633,957*	*9,088,588*	*5,347,074*
Combined Total Full-Time Equivalent Employees	*1,880*	*2,631*	*5,251*	*2,815*	*2,599*

Notes: The alternatives do not include the projects that are being processed under the nursery and processing facilities pilot program and early implementation development agreements.

[1] Cited values are rounded.

[2] The "cultivation garden canopy" is the footprint of the cannabis plant area calculated in square feet and measure using physical boundaries of all area(s) that will contain mature plants at any point in time. The County limits the cultivation garden canopy area to 1 acre per license (Yolo County Code Section 5-20.04[A][2][a][1]). The "total land area for assumed activity footprint" consists of the cultivation site and adjacent land areas used to support the cultivation operation (e.g., buildings, materials storage, drying and processing, equipment storage, and staging areas). The breakdown of cultivation type was based on existing cultivation conditions in the County which is 80 percent outdoor, 17 percent mixed-light, and 3 percent indoor. Total land area committed to cannabis cultivation operations was assumed to consist of 2 acres for every 1 acre of licensed cannabis canopy based on field review and review of Google Earth satellite imagery.

[3] Building square footage for outdoor cultivation was based on average values for current cultivation operations in the County and was assumed to consist of 44,500 square feet per site. Mixed-light cultivation was based on review of current cultivation operations in the County in comparison with information provided in development agreement applications. An average building size of 113,791 square feet per site for mixed-light cultivation was used. An average of 44,000 square feet per acre of cultivation garden canopy was used for indoor cultivation based on review of current indoor operations in the County. Building square footage and land area for activity footprint for noncultivation uses was based on information provided in nursery and processing facilities pilot program application material, information provided by cannabis operators in the County, and applications/Google Earth satellite imagery from Humboldt County and the cities of Eureka and Needles: 140,000 square feet and 15 acres of activity footprint area for nurseries, 6,500 square feet and 0.50 acres of activity footprint area for processing, 1,000 square feet and 0.50 acres of activity footprint area for distribution, and 2,400 square feet and 0.50 acres of activity footprint area for retail.

[4] Full-time employment was based on information provided in development agreement applications and nursery and processing facilities pilot program application material and information provided by cannabis operators in the County: 4.5 employees per acre of cultivation garden canopy for outdoor cultivation, 28 employees per acre of cultivation garden canopy for mixed-light cultivation, 2 employees per 5,000 square feet of greenhouse/building for indoor cultivation, 72 employees per site for nurseries, 2.5 employees per site for processing, 2 employees per site for distribution, and 16 employees per site for retail.

[5] Seasonal employment was based on information provided by cannabis operators in the County: outdoor cultivation assumes 19 employees per acre of cannabis cultivation; processing activities assumes 4 employees per site.

[6] Number of harvests was based on information provided by cannabis operators in the County.

[7] Alternative 4 would prohibit outdoor cultivation so it was assumed that the cultivation would consist of 85 percent mixed-light and 15 percent indoor.

[8] It is assumed that each manufacturing operation would be contained within a 2,700-square-foot building with 0.50 acres of activity footprint area and have 10 employees each. These assumptions are based on review of applications and staff reports for existing manufacturing operations in Humboldt County and the city of Needles. These example sites are located in rural land use conditions similar to those in Yolo County.

[9] The testing facilities were assumed to be contained within a 2,800-square-foot building with 0.50 acres of activity footprint area and have 6 employees per site based on review of information provided by the City of Eureka for a testing facility (Dumouchel 2018).

[10] The microbusinesses were assumed to be contained within a 1,500-square-foot building with 0.50 acres of activity footprint area and have 9 employees (per the Cannabis Program restrictions) based on review of the staff report for an existing microbusiness in a rural area of Humboldt County. The microbusinesses are often co-located with other, larger commercial cannabis operations.

[11] The EIR analysis assumes that one of the eligible cannabis cultivation sites becomes an indoor cultivation operation under Alternative 1.

Source: Prepared by Ascent Environmental in 2018

Table 2-5 provides a summary of the assumed extent of potential new land disturbance from relocation of cultivation sites and new cannabis uses assumed for EIR analysis purposes under each of the alternatives. This is based on the assumptions identified in Appendix D.

Table 2-5 Assumed New Land Disturbance From Cultivation Site Relocations and New Cannabis Uses by Alternative

Feature	Alternative				
	1	2	3	4	5
Cultivation Site Relocations[1]					
Number of Cultivation Site Relocations	9	30	9	9	30
Total Land Area for Assumed Activity Footprint for Relocations (acres)[2]	18	60	18	18	60
New Cultivation Sites					
Number of New Cultivation Sites	0	2	82	2	2
Total Land Area for Assumed Activity Footprint for New Cultivation (acres)[2]	0	4	164	4	4
New Noncultivation Sites					
Number of New Noncultivation Sites	0	52	104	52	50
Total Land Area for Assumed Activity Footprint for New Noncultivation (acres)[3]	0	100	197	100	99
Total Assumed New Land Disturbance					
Total Land Area for Assumed Activity Footprint for Cultivation Relocations (acres)[2]	18	60	18	18	60
Total Land Area for Assumed Activity Footprint for New Cultivation (acres)[2]	0	4	164	4	4
Total Land Area for Assumed Activity Footprint for New Noncultivation (acres)[3]	0	100	197	100	99
Total of Land Disturbance (acres)	***18***	***164***	***379***	***122***	***163***

Notes: The alternatives do not include the projects that are being processed under the nursery and processing facilities pilot program and early implementation development agreements.

[1] Assumed cultivation relocations are based on compliance with CLUO zoning standards and buffer standards under each alternative.

[2] The "total land area for assumed activity footprint" consists of the cultivation site and adjacent land areas used to support the cultivation operation (e.g., buildings, materials storage, drying and processing, equipment storage, and staging areas). The total land area committed to cannabis cultivation operations was assumed to consist of 2 acres for every 1 acre of licensed cannabis canopy based on field review and review of Google Earth satellite imagery.

[3] Total land area for assumed activity footprint for noncultivation uses is based on the assumptions provided in Table 2-4.

Source: Prepared by Ascent Environmental in 2019

2.4.4 Summary of Draft Cannabis Land Use Ordinance

The discussion below summarizes the proposed Draft CLUO. These standards, except when noted, would apply to all the alternatives described above. Table 2-6 identifies what cannabis uses are allowed in the County's zoning districts.

Section 8-2.1401, Relationship to Other County Cannabis Regulations: This section identifies other Yolo County Code sections that contain regulations specific to cannabis activities.

Section 8-2.1402, Purpose: This section elaborates on the purpose of the regulations. It establishes County intent in implementing the ordinance. It describes the primary policy concerns and how they are to be balanced.

Section 8-2.1403, Definitions: This section provides definitions for various terms. Work on this section is ongoing. The definitions are guided by, and intended to be consistent with, the draft ordinance and would therefore result in no change to the environmental impact analysis presented herein. Unless otherwise defined, the County accepts the state definitions of various terms related to cannabis and cannabis activities.

Table 2-6 Proposed Cannabis Development Regulations

Cannabis Land Use Type	Max Canopy Area[1]	State License Type[2] and Agency	Agric Zones (A-N, A-X, A-I, A-C)[3]	Res Zones (RR-5, RR-2, R-L, R-M, R-H)[3]	Comm Zones (C-L, DMX)[3]	Comm Zones (C-G, C-H)[3]	Indus Zones (I-L, I-H)[3]	Buffers from Identified Uses[4]	Special Use Regulations
Personal									
Personal – Outdoor	≤6 plants per DU	Exempt	A[5]	A[5]	A[5]	A[5]	A[5]	X feet	Title 8, Chapter 2, Article 14
Personal – Indoor	<6 plants per DU	Exempt	A[5]	A[5]	A[5]	A[5]	A[5]	None[6]	
Cultivation[7], Nurseries, and Processing									
Specialty Cottage – Outdoor[8]	< 25 mature plants	1C, CDFA	UP(M)	N	N	N	N	X feet	Title 8, Chapter 2, Article 14
Specialty Cottage –Indoor	≤500 sq. ft.	1C, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Specialty Cottage –Mixed-Light[9]	≤2,500 sq. ft.	1C, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Specialty – Outdoor[8]	≤5,000 sq. ft. or ≤50 mature plants	1, CDFA	UP(M)	N	N	N	N	X feet	
Specialty – Indoor	501 to 5,000 sq. ft.	1A, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Specialty – Mixed-Light[9]	2,501 to 5,000 sq. ft.	1B, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Small – Outdoor[8]	5,001 to 10,000 sq. ft.	2, CDFA	UP(M)	N	N	N	N	X feet	
Small – Indoor	5,001 to 10,000 sq. ft.	2A, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Small – Mixed Light[9]	5,001 to 10,000 sq. ft.	2B, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Medium – Outdoor[8]	10,001 to 43,560 sq. ft.	3[10], CDFA	UP(M)	N	N	N	N	X feet	
Medium – Indoor	10,001 to 22,000 sq. ft.	3A[10], CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Medium – Mixed Light[9]	5,001 to 10,000 sq. ft.	3B[10], CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Large[11] – Outdoor[8]	>43,561 sq. ft[12]	5, CDFA	N	N	N	N	N	N/A	
Large[11] – Indoor	>22,001 sq. ft[12]	5A, CDFA	N	N	N	N	N	N/A	
Large[11] – Mixed Light[9]	>22,001 sq. ft[12]	5B, CDFA	N	N	N	N	N	N/A	
Nursery – Outdoor, Indoor or Mixed Light	Unlimited	4[13], CDFA	UP(M)	N	N	N	UP(M)	X feet for outdoor	Title 8, Chapter 2, Article 14
Processing Only[14]	N/A	Not Assigned, CDFA	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Manufacturing, Testing, and Distribution[15]									
Manufacturing – Non-volatile	N/A	6, CDPH	UP(M)	N	N	N	UP(M)	None[6]	Title 8, Chapter 2, Article 14
Manufacturing – Volatile	N/A	7, CDPH	UP(M)	N	N	N	UP(M)	None[6]	
Manufacturing – Infusion	N/A	6N, CDPH	UP(M)	N	N	N	UP(M)	None[6]	
Manufacturing – Packaging and Labeling	N/A	6P, CDPH	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Testing/Laboratory	N/A	8, BCC	UP(M)	N	N	N	UP(M)	None[6]	
Distribution	N/A	11(M)[16], BCC	UP(M)	N	N	UP(M)	UP(M)	None[6]	

Table 2-6 Proposed Cannabis Development Regulations

Cannabis Land Use Type	Max Canopy Area[1]	State License Type[2] and Agency	Agric Zones (A-N, A-X, A-I, A-C)[3]	Res Zones (RR-5, RR-2, R-L, R-M, R-H)[3]	Comm Zones (C-L, DMX)[3]	Comm Zones (C-G, C-H)[3]	Indus Zones (I-L, I-H)[3]	Buffers from Identified Uses[4]	Special Use Regulations
Distribution – Transport Only	N/A	12(M)[16], BCC	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Retail (Dispensary)									
Retail – Storefront	N/A	10(M)[16] and 10A(M), BCC	N	N	UP (M)	UP(M)	UP(M)	None[6]	Title 8, Chapter 2, Article 14
Retail – Non-Storefront	N/A	9(M)[16], BCC	UP(M)	N	N	UP(M)	UP(M)	None[6]	
Special Cannabis Event[17]	N/A	14(M)[16], BCC	N	N	N	N	N	None[6]	
Microbusiness									
Microbusiness	<10,000 sq. ft.	12(M)[16], BCC	UP(M)	N	N	UP(M)	UP(M)	X feet for outdoor	Title 8, Chapter 2, Article 14

Notes: These cannabis-specific regulations are in addition to other development regulations that apply in each zone (including minimum lot area, yard setbacks, height restrictions, building separation, building size, and density/intensity) and other Specific Use Requirements or Performance Standards that apply in each zone. In the case of a conflict the more restrictive regulations shall apply.

A = Allowed Use (applicable building permits and other approvals required); BCC = Bureau of Cannabis Control; CDFA = California Department of Food and Agriculture; CDPH = California Department of Public Health.

DU = dwelling unit; N = Not Allowed; sq. ft. = square feet; UP(M) = Major Use Permit; 43,560 sq. ft. = 1 acre.

1 Limited to 1-acre cultivation limit per County cannabis license.

2 With the exception of CDFA Type 3 licenses (medium cultivation) – see footnote 10 below), State regulations do not limit the number of licenses a person may hold of a particular license type. State regulations do limit the types of license a person may hold at one time. With some exceptions, licensees can only hold licenses in up to two separate categories.

3 Cannabis uses are prohibited in all zones not listed in this table.

4 Buffers are from the uses identified in Section 8-2.1408(E), Buffers, of the CLUO. Buffers are as defined for each CEQA alternative. All other setbacks are per the development requirements of each zone.

5 In legal residential units only, with landlord's permission pursuant to Section 8-2.1406(F), Personal Use Exemption, of the CLUO.

6 Setbacks applicable to the zone district would apply.

7 Cultivation includes processing associated with crops grown on-site. See Section 8-2.1408(HH) Processing, of the CLUO.

8 Includes hoop houses.

9 Includes greenhouses.

10 CDFA will issue a limited number of Type 3 state licenses (CDFA Regulations, Section 8209).

11 CDFA will not issue before January 1, 2023.

12 Unlimited.

13 Includes transport of live plants.

14 Trimming, drying, curing, grading, or packaging of cannabis and non-manufactured cannabis products associated with crops grown off-site. This use may only be conducted pursuant to Section 8-2.1408(HH). Processing, of the CLUO.

15 Distribution ancillary to other licensed and permitted cannabis activities does not require a separate County business license.

16 M = Medicinal; A = Adult-Use.

17 Includes tasting, promotional activities, farmer's markets, and temporary events.

Section 8-2.1404, Applicability: This section addresses various aspects of how the CLUO will be applied. On June 26, 2018, the Board of Supervisors directed staff to integrate adult use (nonmedical or recreational) into the current and proposed cannabis regulations. Therefore, the assumptions regarding medical-only as compared to adult use that were originally to be explored through the alternatives (Section 8-2.1404[I]) are no longer relevant. Yolo County no longer prohibits adult cannabis use.

Section 8-2.1405, Cannabis Use Categories and Use Types: This section identifies each of the state license use types and categorizes them for purposes of the draft CLUO. Generally, the use types are as defined in state law. Section 8-2.1405 (A through E), related to various cannabis use categories and use types, will be modified in the different EIR alternatives. Alternative 1 assumes cultivation only, with ancillary nurseries and processing allowed. Alternatives 2 and 3 assume all use types (except special events). Alternative 4 assumes outdoor uses are prohibited. Alternative 5 assumes the same use types as Alternative 2 restricted to agricultural zones and with the exclusion of retail.

Section 8-2.1406, Cannabis Permit Requirements: This section clarifies the various license and permit requirements. Among other things, it authorizes an administrative process for placing limits on the number of license and permits issued. It also establishes controls on overconcentration. In general, a cannabis operation must have the appropriate state cannabis license(s), a County cannabis license, a County business license (this requirement does not apply to cultivators, nurseries, or processing-only license holders), and a County cannabis use permit. The number of state licenses an individual or business can hold is dictated by state law. The number of separate County cannabis licenses and use permits a person or business can hold may be established in future administrative procedures to be adopted by the County. If such limits are enacted later, they would serve to further minimize environmental impacts identified in this EIR.

Section 8-2.1406(H) addresses possible future regulation of the number of cannabis activities within a geographic area of the County to address concerns of overconcentration. This subsection establishes that the County may choose to enact such controls at any time, identifies the use of the comment areas of the County's citizen advisory committees as possible subregions for such regulation, identifies the use of population and density as possible considerations, and establishes that effects on the illegal market should be among the factors considered when making decisions regarding specific cannabis use permit applications. Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in Sections 3.1 through 3.15. Chapter 4 also addresses the effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

For the purposes of this EIR, the maximum numbers of assumed cannabis operations by type are as defined for each alternative. Alternative 1 assumes 78 operations, Alternatives 2 and 4 assume up to 132 operations, Alternative 3 assumes 264 operations, and Alternative 5 assumes 130 operations.

Section 8-2.1406(L) identifies findings for approval and denial of Cannabis Use Permits. These findings are based generally on County use permit findings identified in Section 8-2.217 (Use Permits) of the current County Zoning Regulations. These findings require consistency with the contents and requirements of the ordinance under review in this EIR and will have no potential to result in new or different impacts.

Section 8-2.1407, Table of Cannabis Development Requirements: This section identifies in table format which use types are allowed in which zone districts, as well as other applicable development requirements, such as maximum canopy area and buffers from sensitive uses. In the final approved CLUO, this table will be modified to reflect the alternative approved by the Board of Supervisors including allowed use types and allowed zones. Alternative 1 assumes a 75-foot buffer between cultivation sites and individual residences and a 1,000-foot buffer between outdoor cannabis sites and identified sensitive uses. Alternatives 2 and 5 assume a 1,000-foot buffer between outdoor cannabis sites and individual residences and identified special uses. Alternative 3 assumes a 75-foot buffer between outdoor cannabis sites and individual residences and identified special uses. Alternative 4 assumes no buffers as outdoor cannabis uses are not allowed. As described in the table, these buffers do not apply to indoor and mixed light operations.

Section 8-2.1408, Specific Use Requirements and Performance Standards: This section provides specific requirements and performance standards to regulate operations for all cannabis use types. The list below provides a brief summary of each item:

A. Agricultural Applications – Requires compliance with applicable County, state requirements, and manufacturer instructions for fertilizers, herbicides, pesticides, rodenticides, fumigants, and other inputs/applications for improved agricultural performance.

B. Agricultural Maintenance – Sets an expectation of continued agricultural use and/or pest management over a majority of the parcel.

C. Backflow Prevention – Requires backflow prevention on wells used to mix chemicals.

D. Biological Resources – Requires applicants to survey and disclose on-site biological resources. Cannabis activities shall avoid special-status species and habitats where feasible, and mitigate pursuant to the Yolo Habitat Conservation Plan/Natural Community Conservation Plan and applicable state requirements when impacts cannot be avoided. Requires compliance with lake or streambed alteration agreements under California Fish and Game Code Section 1602 and with the 100-foot setback requirement of General Plan Policy CO-2.22 and with the Yolo Habitat Conservation Plan/Natural Community Conservation Plan.

E. Buffers – Establishes buffers for various receptors and sensitive land uses. The buffers differ by alternative as described above. Identified receptors include off-site individual legal residences, residentially designated land, licensed day care centers, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust by the federal government or that is the subject of a trust application for a federally recognized tribal government, and licensed youth centers inside and outside of the unincorporated area.

F. Building Design – Requires that design and construction of buildings and structures comply with all applicable codes, standards, regulations, and guidelines, and seek to minimize impacts. Encourages clustering of buildings to minimize impacts, and design compatibility with other allowed uses.

G. Co-Location – Co-location is the issuance of more than one cannabis license under one cannabis use permit, on the same or contiguous parcels. This section allows co-location, including sharing of infrastructure, security, and operations subject to identified requirements.

H. Cultural Resources – Requires evaluation of and mitigation for cultural resources (including tribal cultural resources) consistent with state law and the General Plan.

I. Delivery Services – Prohibits delivery services without a County Cannabis License and a County Business License.

J. Drainage and Storm Water Discharge – Requires that drainage and storm water discharge comply with the State Water Resources Control Board Cannabis Policy and Cannabis General Order and the County improvement standards. For Alternatives 2–5, microbusiness permittees must satisfy Section 5501(a) of the BCC regulations.

K. Driveway Access – Requires that driveways onto County and state maintained roads meet County improvement standards or Caltrans requirements, as applicable. Controlled access entries must provide a rapid entry system for use by emergency personnel and provide adequate space for vehicles to access without blocking the right-of-way. Driveways shall have an all-weather surface, such as compacted gravel.

L. Dust Control -- Permittees must comply with the requirements of the Yolo-Solano Air Quality Management District dust control requirements.

M. Edibles – Requires that sites manufacturing or selling edibles secure all necessary approvals.

N. Employee Services – Requires permittees to provide employee services consistent with labor requirements and secure all appropriate permits and approvals for employee housing.

O. Energy Use – Requires availability of adequate energy, and permittees must generate a minimum of 50 percent of power on-site from clean and/or renewable sources.

P. Fencing – Requires screening as described below.

Q. Fire Protection – Requires compliance with California Building, Electrical, and Fire Codes as adopted by the County. Permittees are required to manage vegetation and maintain fire breaks.

R. Flood Protection – Requires compliance with the applicable standard for flood protection under federal, state, and local requirements.

S. Functionally Equivalent Standards – Allows for flexibility in compliance so long as applicable standards are met or exceeded.

T. Generators – Allows use of generators of any fuel type for CDFA licensees. Use of generators beyond these provisions is prohibited, except for temporary use in the event of a power outage or emergency.

U. Good Neighbor Communication – Requires permittees to provide methods of communication with residents and tenants within 1,000 feet of the site's property line to address conditions at, and operation of, the facility.

V. Grading/Land Clearing -- Prohibits grading or land clearing for cannabis activities without an approved Cannabis Use Permit and County Grading Permit. Permittees are required to implement grading and drainage improvements in a manner to prevent soil erosion, water quality issues, and the accumulation of water (except for retention purposes).

W. Hazardous Materials -- Facilities that handle hazardous materials in reportable quantities must comply with federal, state, and local requirements regarding handling, transportation, storage, and disposal.

X. Hoop Houses – Allows hoop houses as temporary structures with no utilities, power, or lighting. Prohibits processing in hoop houses.

Y. Landscaping – Requires landscaping consistent with state and County requirements.

Z. Lighting – Establishes requirements for exterior lighting including controls for light spillover and to improve efficiency.

AA. Microbusiness – A microbusiness must comply with the requirements of the CLUO specific to any of the applicable cannabis activity use types in which the business engages. Microbusinesses are not assumed under Alternative 1.

BB. Noise Control – Requires permittees to control interior and exterior noise in compliance with the *Yolo County General Plan*.

CC. Nuisance – Establishes that cannabis uses must not create a public nuisance or adversely affect the health or safety of nearby residents or businesses by creating dust, light, glare, heat, noise, noxious gases, odor (see below), smoke, traffic, vibration, unsafe conditions, or other impacts, in excess of allowable thresholds, or be hazardous because of the use or storage of materials, processes, products, runoff, unauthorized releases, or illegal disposal of wastes. This subsection identifies procedures and

requirements related to nuisance. Permittees operating in compliance with the CLUO and other applicable laws are presumed to not cause or contribute to a public nuisance.

DD. Odor Control – Establishes that cannabis operations are required to provide odor control that will not exceed the maximum dilution-to-threshold (allowable threshold) at a specified point of measurement. The allowable threshold is defined as a maximum dilution-to-threshold ratio of seven parts clean or filtered air to one part odorous air (7:1). Odors at this level of dilution are identified as acceptable and would not be considered a nuisance. This threshold must be met at the property line of the site. Indoor and mixed-light facilities must install and maintain the following minimum equipment: an exhaust air filtration system with odor control that effectively minimizes internal odors from being emitted externally; an air system that creates negative air pressure between the facilities interior and exterior so that odors outside of the facility will not exceed the maximum dilution-to-threshold (allowable threshold); or other odor control system which effectively minimizes odor to a level compliant with the allowable threshold. Methods of odor control must be provided to the County in the form of an odor control plan.

EE. Operating Hours – Sets no limits on cultivation. Operating hours for other cannabis uses are subject to County approval.

FF. Parking – Describes parking requirements consistent with County Zoning Regulations and building code occupancy requirements. Prohibits street parking for agriculturally designated land.

GG. Personal Use – Cites regulations pertaining to personal cultivation.

HH. Processing – Establishes processing as an allowed cannabis activity that may be conducted indoors or with appropriate screening.

II. Public Land – Prohibits cannabis activities on public land.

JJ. Roadways – Encourages cannabis operators to minimize vehicle miles traveled and requires preparation of a traffic assessment for any application that meets the conditions identified in the Yolo County Transportation Impact Study Guidelines. Requires permittees to make appropriate roadway improvements identified by the County Engineer, Caltrans, or District Fire Chief as applicable.

KK. Screening – Requires outdoor cannabis cultivators to develop a screening plan that will avoid visibility of outdoor cultivation from public rights-of-way through the use of vegetation and/or fencing. Mixed-light facilities are not required to be screened unless determined to be necessary for security purposes.

LL. Security – Requires a site security system. Permittees must identify site and operation security measures as part of application submittals.

MM. Setbacks – Requires compliance with setbacks established in the Zoning Regulations.

NN. Signage and Advertising – Requires compliance with sign standards established in the Zoning Regulations.

OO. Site Design – Requires compliance with applicable County requirements and impact mitigation requirements.

PP. Site Maintenance – Requires a well-maintained site.

QQ. Trailers and Shipping Containers – Allows use subject to compliance with building permit requirements. Prohibits recreational vehicles.

RR. Tree Protection – Encourages protection of trees. Precludes detrimental activity within driplines. Precludes removal of native trees and tree clusters or stands, particularly in oak woodlands, remnant valley oaks, and riparian woodlands.

SS. Waste Management – Regulates storage of waste and requires regular removal.

TT. Wastewater Discharge – Requires adequate toilet facilities and restricts discharge of wastewater effluent.

UU. Vertical Integration – Vertical integration refers to operations that hold more than one category of license type. This section allows vertical integration.

VV. Water Supply/Use – Requires access to potable drinking water and water for hand washing during operation, consistent with the requirements of the Division of Environmental Health.

Section 8-2.1409, Special Cannabis Restrictions and Concerns: This section identifies and discloses restrictions and concerns unique to cannabis, including the current federal framework, the potential for changes in the regulatory environmental at all levels, and limitations on County liability.

Section 8-2.1410, Application Submittal and Processing: This section identifies information required for the cannabis use permit application specific to the proposed site and operation. It establishes general code compliance requirements and identifies use permit requirements specific to cannabis applications. It also discloses the intent to achieve project-specific CEQA coverage from the programmatic EIR by utilizing available CEQA streamlining opportunities.

Section 8-2.1411, Reporting and Inspections: This section identifies annual reporting and inspection requirements, and describes how that information will be presented to the Planning Commission and Board of Supervisors. All permittees are required to report annually to the County with proof of:

- compliance with County and state cannabis licensing requirements;
- compliance with Cannabis Use Permit requirements;
- compliance with CEQA mitigation measures, as applicable;
- compliance with development agreement requirements, as applicable; and
- monthly inventory records.

With regard to inspections, the CLUO includes the following requirements:

- Recordings made by security cameras at any cannabis business shall be made immediately available upon verbal request from the County.

- The County shall have the right to enter all cannabis businesses unannounced.

- Applicants and permittees must cooperate with employees and investigators of the County.

- Interference in the performance of an inspection by any means is grounds for permit revocation.

Section 8-2.1412, Enforcement: This section describes the enforcement process and related topics, including abatement, penalties, procedures for suspension and/or revocation, enforcement, and other matters. Any of the following items is identified as grounds for suspension or revocation of a cannabis permit:

- Any act or omission by a property owner or permittee in contravention of the provisions of the CLUO;

- Unresolved violation by the applicant or permittee, or unresolved violation at the proposed cultivation site, of any provision of the County Code or state law related to the cannabis use;

- A change in conditions occurring after the original grant of the approval or the continuation of the use as approved that is contrary to public health, safety or general welfare, or is detrimental or incompatible with other permitted uses in the vicinity;
- The findings which were the basis for the original permit approval can no longer be made;
- Regulations applicable when the permit was approved have been amended;
- Cessation of all uses authorized by the cannabis use permit for a period of three or more consecutive years; or
- Failure to comply with any requirement of this or other applicable sections of the County Code or state law

This subsection identifies procedures for suspension or revocation of Cannabis Use Permits. Additional text describing the enforcement process may be considered by the County later in the review process. If it is considered, it would serve solely to clarify the enforcement process and would not result in changes to the EIR analysis.

Section 8-2.1413, Effectiveness. This section identifies a required evaluation of the effectiveness of the ordinance after 2 years of implementation.

2.5 GENERAL PLAN AMENDMENT

The 2030 Countywide General Plan adopted in 2009 did not anticipate cannabis as a legal commercial crop. To establish a policy base for cannabis land use regulation and approach, the following amendments to the County General Plan are proposed as a part of the project.

Modify Policy LU-1.1 and Table LU-4 as follows:

Agriculture (AG) includes the full range of cultivated agriculture, such as row crops, cannabis cultivation/nurseries/and processing, 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; cannabis manufacturing, testing, and distribution; cannabis retail – non-storefront; cannabis microbusiness; 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….

Commercial General (CG) includes regional and highway-serving retail, offices, service retail and agricultural commercial uses. Research and development is allowed where offices and service support uses are the primary use (accounting for more than 50 percent of the total square footage). There is no limit on the amount of ground floor square footage. Upper floor and accessory attached residential uses are allowed. This designation also includes indoor and mixed-light cannabis cultivation, cannabis processing, cannabis manufacturing – packaging and labeling; cannabis distribution, cannabis retail, and cannabis microbusiness.

Commercial Local (CL) includes a range of goods and services to meet the everyday needs of residents within a community, such as retail, offices, service uses and agricultural commercial uses. There is a limit of 40,000 square feet allowed on the ground floor for any one user. Upper floor and ancillary attached residential uses are allowed. This designation also includes cannabis retail-storefront.

Industrial (IN) includes the full range of light to heavy industrial/manufacturing, including agricultural industrial uses (e.g. storage facilities, contractor's yards, corporation yards, dismantling, etc.). This designation also includes indoor and mixed light cannabis cultivation, cannabis nurseries, cannabis

processing, cannabis manufacturing/ testing /and distribution, cannabis retail, and cannabis microbusiness. Research and development, including biotechnology, is allowed where manufacturing is the primary use (accounting for more than 50 percent of the total square footage).

Add new Policy LU-1.4 as follows:

Personal cultivation of cannabis, outdoor and indoor, compliant with all applicable state and local regulations, is an allowed land use in all agricultural, residential, commercial, and industrial general plan land use designations.

Modify Policy LU-2.3 as follows:

Prohibit the division of land in an agricultural area if the division is for non-agricultural purposes, if the division is for cannabis crops or activities, and/or if the result of the division will be parcels that are infeasible for farming. Projects related to clustering and/or transfers of development rights are considered to be compatible with agriculture.

Modify Policy AG-1.3 as follows:

Prohibit the division of agricultural land for non-agricultural uses and/or for cannabis crops or activities.

Add new Policy AG-3.22 as follows:

Based on statewide and local voter support, accept cannabis cultivation, nurseries, processing, manufacturing, retail, and microbusiness operations as a new agricultural opportunity in support of agricultural economic development, preservation of agricultural land, and creation of opportunities for new farmers. Recognize unique challenges, and competing and evolving community values, by allowing for adaptive regulatory considerations over time.

2.6 PROJECT APPROVALS

The following approvals are needed by the County for implementation of this project:

- certification of the programmatic EIR for the CLUO;
- adoption of a General Plan Amendment for revisions to the text of Policy LU-1.1 and Table LU-4, modification of Policies LU-2.3 and AG-1.3, and inclusion of a new Policies LU 1.4 and AG-3.21;
- adoption of the CLUO adding Article 14 (Cannabis Land Use Ordinance) to Chapter 2 (Zoning Regulations) of Title 8 of the Yolo County Code;
- adoption of amendments to County Marijuana Cultivation Regulations, Chapter 20 of Title 5 to comport to the proposed CLUO;
- adoption of amendments to County Subdivision Regulations, Section 8-1.802 (Streets) to comport to proposed CLUO Section 8-2.1408(K) (Driveway Access);
- adoption of amendments to County Zoning Regulations, Section 8-2.217 (Use Permits) to comport to proposed CLUO Section 8-2.1412 (Enforcement); and
- adoption of new Title 12 (Business Licenses) Chapter 4 (Cannabis Licensing Ordinance) to establish the requirements for issuance of Cannabis Business Licenses and County Cannabis Licenses.

3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter is organized by environmental resource topic. Each resource topic is addressed in a separate section that presents an integrated discussion of the existing conditions (including environmental setting and regulatory setting) associated with the resource, potential environmental effects of the project (including direct and indirect impacts) on the resource, and mitigation measures to reduce significant effects.

Cumulative and growth-inducing impacts are discussed in Chapter 4, "Cumulative Impacts and Overconcentration," and Chapter 6, "Other CEQA-Mandated Sections," respectively.

APPROACH TO THE ENVIRONMENTAL ANALYSIS

In accordance with the State CEQA Guidelines (CCR Section 15126.2), this Draft EIR identifies and focuses on the significant direct and indirect environmental effects from the adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO. The analysis considers the short-term and long-term effects of the project based on construction and operational assumptions described below.

As described in Chapter 1, "Introduction," this analysis focuses on those environmental resource topics for which potentially significant impacts were identified based on review of comments received during project scoping and additional research and analysis of relevant project data.

The remainder of this chapter addresses the following resource topics:

- Section 3.1, "Aesthetics"
- Section 3.2, "Agricultural Resources"
- Section 3.3, "Air Quality and Odors"
- Section 3.4, "Biological Resources"
- Section 3.5, "Cultural Resources"
- Section 3.6, "Energy"
- Section 3.7, "Geology and Soils"
- Section 3.8, "Greenhouse Gas Emissions and Climate Change"
- Section 3.9, "Hazards and Hazardous Materials"
- Section 3.10, "Hydrology and Water Quality"
- Section 3.11, "Land Use and Planning"
- Section 3.12, "Noise"
- Section 3.13, "Public Services"
- Section 3.14, "Transportation and Circulation"
- Section 3.15, "Utilities and Service Systems"

Sections 3.1 through 3.15 follow the same general format:

- **"Environmental Setting":** This section describes existing environmental conditions throughout the County, in accordance with the State CEQA Guidelines (CCR Section 15125). This setting generally serves as the baseline against which environmental impacts are evaluated. The NOP for the project was issued on August 24, 2018. Typically, and in accordance with State CEQA Guidelines Section 15125, the date on which the NOP is issued is considered appropriate for establishing the baseline. Baseline land use condition assumptions for new cannabis uses on agricultural lands are based on actual countywide crop data percentages in the following categories: orchard/vineyard, row crops, and rangeland. As further discussed below in the Appendix D, baseline land use conditions for new cannabis uses on commercial and industrial zoned lands assumes that 70 percent of the commercial zoned lands are

developed, and 80 percent of the industrial zoned lands are developed. This assumption is based on County GIS countywide land use data that identifies the majority of these areas have been developed (see Appendix D). Within each of the resource topic areas identified above, the assumed baseline and justification for it are described in further detail.

As described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," there are 78 existing and eligible cannabis cultivation sites in the County. Cultivation operations that do not comply with Chapter 20 of Title 5 of the Yolo County Code, including illegal operations operating without any required approvals and licensed operations operating out of compliance, are subject to code enforcement and/or law enforcement unless brought into compliance. Enforcement activities taken by the County have reduced the extent of illegal and/or non-compliant cannabis operations. However, it is acknowledged that illegal cannabis and/or non-compliant operations may occur in the County after adoption and implementation of the ordinance. While this Draft EIR acknowledges the adverse environmental effects of illegal and/or non-compliant cannabis operations as part of the environmental baseline condition, the Draft EIR does not propose mitigation measures to address these operations as they are not part of the project.

- **"Regulatory Setting":** This section presents the laws, regulations, plans, and policies relevant to each resource topic, including state, regional, and local regulations that address potential adverse environmental impacts. At this time, there is a disparity between federal law and state/local law. Cannabis is identified as a Schedule 1 controlled substance under the federal Controlled Substance Act. Operations related to the growing, processing, and sale of cannabis products are in violation of federal law. Federal agencies are generally prohibited from issuing permits or approvals for any operation that is in violation of federal law. Thus, under the current regulatory environment the analysis presented in this EIR cannot assume compliance with federal permitting requirements that would usually address certain environmental impacts (e.g., filling of waters of the United States and incidental take of species listed under the federal Endangered Species Act). However, over the course of implementing the CLUO this may change. It is anticipated that at some future point the federal government will decriminalize cannabis and better align federal policy with cannabis policies and programs already in place in many states including California. As a result, where this becomes relevant (as identified in the impact analysis), alternative mitigation is identified if it is available, including avoidance in the interim, with subsequent compliance with federal regulations and permitting identified as an available long-term mitigation should federal legalization of cannabis activities occur.

- **"Environmental Impacts and Mitigation Measures":** In accordance with the State CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143), this section identifies the baseline conditions for the environmental issue area under evaluation, the method of analysis to determine whether an impact may occur, and thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic. The thresholds of significance are based on the checklist presented in Appendix G of the most recently adopted State CEQA Guidelines (December 28, 2018), best available data, applicable regulatory standards, and local practice/standards. The level of each impact is determined by analyzing the effects of each project alternative to the defined baseline conditions and comparing it to the applicable significance threshold.

  The impact analysis is focused on changes to the physical environment from implementation of the proposed CLUO, including assumed cannabis uses under each of the various five alternatives. The analysis also provides an assessment of performance standards that would regulate both existing cannabis cultivation operations and new cannabis operations. For example, possible environmental impacts associated with existing cannabis operations could result from physical improvements required to bring the operation into compliance, such as relocation of operations to less environmentally sensitive portions of the site or to new sites. Environmental impacts associated with new cannabis operations would include construction and operation of facilities in accordance with the performance standards of the proposed CLUO, many of which are intended to protect the environment. The impact analysis would also consider the

environmental protections provided by existing regulations, unrelated to the CLUO, that would apply to cannabis facilities, such as state cannabis regulations and other provisions of the Yolo County Code.

Project impacts are organized by environmental topic abbreviation in each subsection (e.g., Impact AES-1, Impact AES-2, Impact AES-3, etc.). A bold-font impact statement, a summary of each impact, and a statement of the level of significance for each alternative precedes the impact analysis. The analysis and discussion that follows the impact statement includes the substantial evidence supporting the impact significance conclusion. This Draft EIR evaluates impacts of the CLUO under each of the five alternatives at an equal level of detail.

The EIR identifies feasible mitigation measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts (PRC Section 21081.6[b]). Because the proposed project is adoption and implementation of the CLUO, the identified mitigation measures take the form of new or modified regulatory requirements that will be incorporated into the final CLUO and thereby become fully enforceable consistent with the requirements of state law. Mitigation measures are not required for effects found to be less than significant. Where feasible mitigation for a significant impact is available, it is described in this EIR following the impact, along with its effectiveness at addressing the impact. Each identified mitigation measure is labeled numerically to correspond with the impact it addresses. Where sufficient feasible mitigation is not available to reduce an impact to a less-than-significant level the impact is identified as significant and unavoidable.

It is important to note that environmental impact analyses under CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents, unless the proposed project might cause or risk exacerbating environmental hazards or conditions that already exist (CCR Section 15126.2[a]). In those specific instances, it is the project's impact on the environment and not the environment's impact on the project that compels an evaluation of how future residents or users could be affected by exacerbated conditions (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal. 4th 369).

Chapter 4, "Cumulative Impacts and Overconcentration," contains an analysis of the potential for cumulative effects not otherwise identified in Chapter 3, and effects from a concentration or cluster of multiple cannabis uses located in distinct subregions of the County.

CANNABIS USE ASSUMPTIONS FOR ALTERNATIVES

As further described in Appendix D, the EIR analysis is based on the following assumptions associated with relocations of existing cultivation sites associated with compliance with zoning and buffering standards under the CLUO as well as assumed new cannabis uses. It should be noted that existing cannabis sites may also be relocated for compliance with other CLUO requirements such as flooding, biological resources, slopes, and other site-specific constraints.

The following assumptions were used for all alternatives for relocated or new cultivation sites:

- Cannabis cultivation parcels are assumed to be 40 acres in size.[1]
- Cannabis cultivation activity footprint is assumed at 2 acres (land area that contains the cultivation canopy and supporting operations and buildings).[1]
- 33 percent of sites located on land areas in row crop production[2]

[1] Based on existing cultivation site data, County GIS data, and review of satellite images.
[2] Based on acreage data in the Yolo County 2018 Crop Report (approximately 196,000 acres in row crop production, 227,000 acres in orchard or vineyard production).

- 39 percent of sites located on land areas in orchard or vineyard production[2]
- 28 percent of sites located on land areas used for grazing/pastureland[3]
- Relocated sites occur near the existing site
- Cultivation site construction activities:
  - All sites would conduct ground vegetation removal.
  - 50 percent of sites that require construction of new onsite roadways, buildings, and infrastructure.[4]
- Assumed cultivation site operation activities:
  - Preparation, planting, maintenance, and harvesting of cannabis (outdoors and in structures) through the use of staff, equipment, and vehicles.
  - Operation of greenhouses and interior lighting for the growing of cannabis plants in nurseries for outdoor planting or as part of a mixed-light or indoor cultivation.
  - Use of carbon dioxide for plant growth enhancement.
  - Employee vehicle trips to and from the site.
  - Seasonal employee vehicle trips to and from the site during harvest of outdoor cultivation.
  - Truck trips to and from the site to deliver supplies (e.g., soil amendments, fertilizers, pesticides, and carbon dioxide gas tanks) and/or transport cannabis plants, cannabis waste, and non-cannabis waste.
  - Operation of well, septic, and drainage facilities.

The following assumptions were used for new noncultivation uses for Alternatives 2 through 5.

- 90 percent of noncultivation uses are vertically integrated and located on agriculturally zoned parcels assumed to be 40 acres in size located on the same range of agricultural lands assumed for cultivation relocation.[5]
  - Vertically integrated sites would include a combination of the follow activity footprints:
    - Cultivation activity footprint is 2 acres per cultivation site.
    - Nursery activity footprint (land area that contains the nursery facility and supporting operations and buildings) is assumed to be 15 acres per nursery.
    - Processing, manufacturing, testing, distribution, retail, and microbusiness activity footprints are assumed to be 0.50 acres per use.
  - Construction activities for vertically integrated sites
    - Removal of existing ground vegetation and/or crops within activity footprint.
    - Grading to create onsite roadways, parking, and building pads for a single-story buildings.
    - Graveling or paving of onsite roadways and parking.
    - Grading and/or trenching for septic systems or public wastewater system connections, wells and water tanks or public water system connections, electrical facilities, and drainage/water quality improvements.
- 10 percent of noncultivation uses are located on commercial or industrial zoned property and would not be vertically integrated because of limited availability of undeveloped commercial and industrial parcels and average parcel sizes (approximately 1.5 acres for industrial sites and 7 acres for commercial sites).[6]
  - Approximately 80 percent of noncultivation sites within commercial zoned property are assumed to be located within an existing building on a developed site. Approximately 70 percent of noncultivation sites within industrial zoned property are assumed to be located within an existing building on a developed site.[7]

[3] Based on acreage data from the California Department of Conservation Table A-46: Yolo County 2014-2016 Land Use Conversion, approximately 166,000 acres.

[4] Based on County Cannabis Task Force staff experience with existing cultivation operations. Remaining sites are assumed to be located on sites that have active agricultural where ground disturbance routinely occurs, and buildings already exist.

[5] Vertically integration means more than one cultivation and/or noncultivation use on a single parcel.

[6] Non-vertically integrated sites under Alternative 5 would locate in agricultural zones.

[7] County GIS data identifies approximately 750 acres of commercial zoned land (approximately 70 percent developed) and 610 acres of industrial zoned land (approximately 80 developed) in the unincorporated area.

- Assumed noncultivation operation activities:
  - Operation of the building that includes energy use, wastewater generation, water demand, and stormwater management.
  - Employee and customer vehicle trips to and from the site.
  - Truck trips to and from the site to deliver supplies (e.g., chemicals, gases, containers, equipment) and/or transport cannabis plants, cannabis products, cannabis or cannabis product waste, and non-cannabis waste.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As identified in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," Alternative 1 is assumed to maintain the 78 existing and eligible cultivation sites and would not allow any new cannabis uses. The following assumptions are used to evaluate potential impacts for relocation of cultivation sites. Nine of the 78 existing and eligible sites are assumed to relocate due to zoning standards of the CLUO which could result in the development of 18 acres (see Table 2-5).

Alternative 2: All License Types with Moderate Limits

As identified in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," Alternative 2 assumes that all types of cannabis operations would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses. This alternative is assumed to include two new cultivation uses and 52 new noncultivation uses. Implementation of the CLUO is assumed to require relocation of 30 of the 78 existing and eligible cultivation sites to meet the buffering and zoning requirements. The two new cultivation sites under this alternative as assumed to occur with vertical integration with noncultivation uses. Approximately 47 noncultivation uses would be vertically integrated, while five noncultivation uses would be located on industrial or commercial zoned lands. Cultivation site relocations and new cannabis uses are assumed to result in the development of 164 acres (see Table 2-5).

Alternative 3: All License Types with High Limits

Alternative 3 assumes that all types of cannabis operations would be allowed, including commercial cultivation, nurseries, processing, manufacturing, testing, distribution, retail, and microbusiness. This alternative is assumed to include 82 new cultivation uses and 104 new noncultivation uses. Implementation of the CLUO is assumed to require relocation of nine of the 78 existing and eligible cultivation sites to meet zoning requirements. It is assumed that 25 new cultivation sites occur with vertical integration with new noncultivation uses, while 57 new cultivation sites would not be vertically integrated. and under this alternative as assumed to occur with vertical integration. Approximately 94 noncultivation uses would be vertically integrated, while 10 noncultivation uses would be located on industrial or commercial zoned lands. Cultivation site relocations and new cannabis uses are assumed to result in the development of 379 acres (see Table 2-5).

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes that personal cultivation, commercial cannabis cultivation, nurseries, processing, and microbusinesses would be limited to indoor and mixed-light operations within a structure. It is assumed that 75 of the existing and eligible cannabis cultivation sites with outdoor cultivation would convert entirely to indoor or mixed-light cultivation in greenhouses or indoor buildings under this alternative. This alternative is assumed to include two new cultivation uses and 52 new noncultivation uses. Implementation of the CLUO is assumed to require relocation of nine of the 78 existing and eligible cultivation sites to meet the buffering and zoning requirements. The two new cultivation sites under this alternative as assumed to occur with vertical integration with noncultivation uses. Approximately 47 noncultivation uses would be vertically integrated, while five noncultivation uses would be located on industrial or commercial zoned lands. Cultivation site relocations and new cannabis uses are assumed to result in the development of 122 acres (see Table 2-5).

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes all license types, with the exception of retail, but would limit commercial cannabis to agricultural zone districts. This alternative is assumed to include two new cultivation uses and 50 new noncultivation uses. Implementation of the CLUO is assumed to require relocation of 30 of the 78 existing and eligible cultivation sites to meet the buffering and zoning requirements. The two new cultivation sites under this alternative as assumed to occur with vertical integration with noncultivation uses. Approximately 45 noncultivation uses would be vertically integrated, while five noncultivation uses would be located in agricultural zoned lands. Cultivation site relocations and new cannabis uses are assumed to result in the development of 163 acres (see Table 2-5).

EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA allows a lead agency to limit the detail of discussion of environmental effects that are not potentially significant (PRC Section 21100, CCR Section 15128). Based on research and analysis of technical studies and data, and review of the CLUO, it was determined that the project would not result in significant environmental impacts identified below. Accordingly, these resources are not addressed further in this Draft EIR.

Airport and Creation of Noise-Sensitive Receptors

Adoption and implementation of the proposed CLUO would not result in the development of new residential land uses or other types of noise-sensitive receptors. Additionally, the CLUO would not result in the development of new residential land uses near private air strips or public commercial airports in Yolo County. Cannabis uses would be required to comply with the comprehensive land use plans (CLUPs) and County Zoning Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, noise, and hazards. Thus, airport noise impacts are not discussed further.

Carbon Monoxide Emission Hotspots

Carbon monoxide (CO) “hot spots” are localized concentrations of CO emissions that exceed state and federal air quality standards for the protection of public health. CO hot spots can be created as the result of a large number of vehicles idling at intersections. Regarding the potential for CO hot spots at local intersections, these types of effects only occur at intersections experiencing extremely high volumes of traffic. Assumed operational activities associated with the most development intensive alternative under the CLUO (Alternative 3) are not anticipated to generate more than 14,864 trips per day (see Appendix G). Moreover, assumed new cannabis uses from implementation of the CLUO would generally be spread throughout the unincorporated area. Thus, it is not expected that assumed vehicle trips generated by cannabis uses would result in excessive congestion at any intersection that experiences high volumes of vehicles with long wait times. For these reasons, it is not expected that the additional trips associated with new cultivation would contribute substantially to traffic congestion at affected intersections such that local CO “hot spots” may occur that exceed the California ambient air quality standards or national ambient air quality standards for CO. Therefore, this issue is not discussed further.

Construction-Related Toxic Air Contaminants

Construction of cannabis uses may involve the use of diesel-powered equipment that emit diesel PM. However, construction activities would be limited and would be temporary. Given the minimal construction activities described in Chapter 2, “Description of Preferred Alternative and Equal Weight Alternatives, “individual cannabis uses would not expose existing receptors to substantial construction-related toxic air contaminant concentrations and this issue is not discussed further.

Conflict or Obstruct Implementation of a Sustainable Groundwater Management Plan

As identified in Table 3.10-2, the Yolo Subbasin is of high priority and Solano and Colusa Subbasins are of medium priority and are subject to development of a Groundwater Sustainability Plan (GSP). The Yolo Subbasin Groundwater Agency was officially formed on June 19, 2017, for the purpose of acting as the Groundwater Sustainability Agency for the Yolo Subbasin, which underlies the majority of Yolo County under the 2016 Bulletin 118 definitions. The planning deadline for California's first round of GSPs is January 31, 2022, for all other high- and medium-priority basins. Because a GSP has not yet been developed this topic is not discussed further.

Displacement of Substantial Number of Existing People or Housing

Commercial cannabis uses have no significant potential to result in a substantial displacement of housing or displace people because cannabis uses would only be allowed in agricultural, commercial, industrial zones and would be prohibited from residential zones (see Table 2-3 in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives"). Therefore, this issue is not evaluated further in this impact analysis.

Drainage, Energy, and Telecommunication Infrastructure

New cannabis uses from implementation of the CLUO are anticipated to construct and/or improve stormwater drainage, electric power, natural gas, and telecommunication facilities as needed based on site-specific conditions. Extension of these infrastructure facilities are expected to be limited as are generally available along roadway frontage of the parcels or may be accommodated on the site (e.g., drainage ditches, detention basins, solar energy generation). The potential environmental impacts of extending infrastructure off-site would be evaluated as part of subsequent application review. However, the overall environmental impacts for construction and operation of cannabis uses (including those related to infrastructure facilities) have been programmatically evaluated in this EIR. The reader is referred to Section 3.6, "Energy," for energy use impacts and Section 3.10, "Hydrology and Water Quality," for drainage and water quality impacts. This issue is not further evaluated.

Emergency Access

CLUO Section 8-2.1408, Specific Use Requirements and Performance Standards, includes the requirement that controlled access entries must provide a rapid entry system for use by emergency personnel and provide adequate space for vehicles to access without blocking the right-of-way. Additionally, the CLUO would require that site design be compliant with all applicable County requirements; thus, emergency access for future cannabis projects under the CLUO would be subject to review by Yolo County and the appropriate responsible emergency service agencies. Therefore, future cannabis projects under the CLUO would be designed to meet applicable emergency access and design standards. Therefore, adequate emergency access would be provided. This issue is not discussed further.

Forestry Resources

The NOP substantiated that forestry resources would not be addressed in the Draft EIR because Yolo County has no commercial forestland or timber resources and the proposed CLUO would prohibit the removal of oak woodlands. Therefore, no impact on forestry resources is expected to occur.

Parks and Recreation

The parks in Yolo County are managed by federal, state, and local authorities. Implementation of the CLUO is not expected to result in a direct loss of park and recreational facilities as cannabis uses are not permitted in public and open space zones. Cannabis uses are agricultural and would not trigger the need for new or modified park facilities. Therefore, no impact on parks and recreation is expected to occur.

Public Facilities

Implementation of the CLUO would not directly result in the creation of new population that would increase the demand for libraries and other governmental services. However, CLUO Alternatives 2, 3, 4, and 5 would create new employment that could result in new County residents. This extent of development in the County is not expected to trigger the immediate need to construct new facilities. Construction of cannabis-related buildings would pay the County Facilities and Services Development Fee at the building permit issuance that would provide funding for facility improvements or new facilities whose timing would be determined by County as part of facilities planning. Pursuant to General Plan Policies PF-12.1 through PF-12.3, the development of these facilities by the County would be conducted in an environmentally sustainable manner (Yolo County 2009:416). Therefore, no physical environmental impacts associated with new government facilities from implementation of the CLUO would occur.

Public Schools

Implementation of the CLUO would not directly result in the creation of new population that would increase the demand for libraries and other governmental services. However, CLUO Alternatives 2, 3, 4, and 5 would create new employment that could result in new County residents. Development of commercial and residential building associated with cannabis uses would be subject to school impact fees. California Government Code Sections 65995(h) and 65996(b) require full and complete school facilities mitigation. Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provision of adequate school facilities and Section 65996(b) states that the provisions of the Government Code provide full and complete school facilities mitigation. This issue is not discussed further.

Septic Systems

Where new cannabis uses would use septic tanks or other on-site wastewater treatment and disposal systems, this activity would be regulated through the Yolo County Onsite Wastewater Treatment Systems Local Agency Program described in Yolo County Code Chapter 19 of Title 6. Chapter 19 requires that a site evaluation be prepared to confirm that a septic system can operate properly. Section 6-19.605 identifies that the evaluation must include details on soil conditions (e.g., soil textural character and percolation rate), depth to groundwater, adequate land area to accommodate a 100-percent system replacement. Section 6-19.606 includes requirements for siting, design, operation, and maintenance measures to avoid system failures. Use of septic tanks or other on-site wastewater treatment and disposal systems would not be authorized in areas with soils incapable of supporting these facilities. Therefore, this issue is not evaluated further in this impact analysis.

Seiche Hazards

A seiche is the oscillation of a body of water at its natural period. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays or harbors. Since Yolo County is generally subject to only low to moderate levels of earthquake-induced ground shaking, hazard of a seiche is not considered high. However, in the event that significant ground shaking does occur, the County of Yolo Emergency Plan has identified the following primary areas in the County in which a seiche could occur: Lake Berryessa; the Sacramento River, which could affect bordering communities, including Knights Landing and Clarksburg; the Yolo Bypass when water is present in the bypass; and Lake Washington Harbor, the Port of West Sacramento, and the Deep Water Ship Channel. Since Lake Berryessa is closest of these areas to active faults, it is perhaps the most likely to experience a seiche. Based on a review of the available literature, however, no identified or measurable seiches have been documented in Yolo County surface water bodies. Adoption and implementation of the proposed CLUO would not increase the potential for seiches because it would not alter seismic conditions in the region. Therefore, this issue is not evaluated further in this impact analysis.

Transit, Pedestrian, and Bicycle Conflicts

Due to the rural character of unincorporated area transportation network, the lack of transit, and the assumed dispersion of the individual cannabis operations and facilities throughout the unincorporated area, it is unlikely that the adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would generate substantial pedestrian, bicycle, or transit demand. Thus, the project would not conflict with a program, plan, ordinance or policy addressing pedestrian, bicycle, and transit facilities or otherwise decrease the performance or safety of such facilities. This issue is not discussed further.

Transportation Hazards and Emergency Access

CLUO Section 8-2.1408, Specific Use Requirements and Performance Standards, provides specific requirements and performance standards to regulate operations for all cannabis use types. These requirements and standards include the following requirements for driveway design and roadway improvements that may be required for individual cannabis sites:

- Section 8-2.1408(K): Driveway Access: Driveway approaches to County and State maintained roads shall be per current County Improvement Standards or Caltrans requirements, as applicable. An encroachment permit may be required. Controlled access entries must provide a rapid entry system (e.g. Knox Box approved by the local Fire District or fire service provider) for use by emergency personnel and provide adequate space for vehicles to access the lock without impeding the right-of-way. A County assigned street address is a requirement. The address must be posted and adhere to display requirements of the Fire Code. Permittees must demonstrate safe and adequate driveway access to the satisfaction of the County or Caltrans, as applicable, in compliance with applicable standards. Access considerations identified in Section 8-1.802 of the County Code shall apply. *(For the convenience of the reader these include: will the proposed use have access characteristics different from other permitted land uses; does the proposed access have inadequate design; will emergency vehicle access be impaired; would the proposed access adversely affect safe operations on the adjoining roadway system; are site distance, visibility, proximity to parking, drainage, turning radius, angle of intersection, vertical alignment, and pavement condition adequate for the proposed use and consistent/equitable in relation to access requirements for other permitted uses; proximity to other driveways and intersections; other relevant circumstances identified by the County.)* Driveways shall have an all-weather surface, such as compacted gravel.

- Section 8-2.1408(JJ): Roadways: In accordance with the County's adopted policies and standards cannabis operators are strongly encouraged to take affirmative measures to combine trips, reduce greenhouse gas emissions, and minimize vehicle miles traveled. Policy CI-3.1 of the Circulation Element of the County General Plan identifies level of service policies intended to retain capacity on rural roads for agricultural uses, which includes cannabis cultivation.

  If triggered by conditions identified in the Yolo Transportation Impact Study Guidelines, e.g. 100 new trips or more, applicants will prepare a traffic assessment for consideration as part of their use permit application. In situations where a project would substantially and adversely alter physical or operational conditions on a County roadway beyond the planned condition anticipated in the adopted General Plan, roadway improvements (e.g. safety improvements) or other circulation improvements will be required as appropriate.

  The permittee shall install/undertake appropriate roadway improvements identified by the County Engineer or District Fire Chief as appropriate, for County roads, or Caltrans and District Fire Chief for State roads, to adequately resolve identified concerns in a manner consistent with adopted standards and requirements as applied to other similar uses.

Thus, all roadway improvements associated with new cannabis operations under the CLUO would be constructed in accordance with all applicable County and Caltrans design and safety standards. Additionally, the vehicle types associated with operation of cannabis operations (i.e., passenger vehicles, light-duty vehicles, single unit trucks) are consistent with the vehicle types currently utilizing the study area roadway network and thus would not result in the operation of incompatible uses. Therefore, the project would not increase hazards because of a design feature or incompatible uses. This issue is not discussed further.

Tsunami Hazards

Tsunamis are long period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. Areas that are highly susceptible to tsunami inundation tend to be low-lying coastal areas, such as tidal flats, marshlands, and former bay margins that have been artificially filled. According to the Yolo County General Plan EIR, Tsunami wave run-up elevations for the Sacramento River in the Yolo County area have not been quantified but would not be expected to represent a hazard for Yolo County given its distance (more than 50 miles) from the coast. Adoption and implementation of the proposed CLUO would not increase the potential for tsunamis because it would not alter seismic conditions in the region. Therefore, this issue is not evaluated further in this impact analysis.

Vibration

No major operational sources of vibration would be constructed as part of the adoption and implementation of the CLUO. Construction of any subsequent cannabis use under the CLUO would not include vibration-intensive activities such as blasting or pile driving. In addition, subsequent cannabis use under the CLUO would not result in the location of new vibration-sensitive receptors to existing sources of vibration. Thus, the project would not result in excessive vibration or vibration levels such that any receptors would be adversely affected, and vibration-related impacts are not discussed further.

STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

- **"No impact"** means no change from existing conditions (no mitigation is required).
- **"Less-than-significant impact"** means no substantial adverse change in the physical environment (no mitigation is required). While there may be some associated impact, it is insignificant or acceptable based on the applicable thresholds of significance.
- **"Significant impact**" is a substantial, or potentially substantial, adverse change in the environment (PRC Section 21068 and CEQA Guidelines Section 15382). The CEQA Guidelines direct that this determination be made by the decision-making body (in this case, the Yolo County Board of Supervisors) and that it be based on scientific and factual data to the extent possible. The specific criteria for determining significance are identified for each section of Chapter 3 in the "Thresholds of Significance" section. The significance of an activity may vary with the setting. Significant impacts can be mitigated to less-than-significant levels by implementation of identified feasible mitigation measures.
- **"Significant and unavoidable impact"** is a substantial adverse change in the physical environment for which no mitigation has been identified as feasible to avoid the impact or reduce it to a less-than-significant level.
- **"Project"** means the proposed Cannabis Land Use Ordinance.

3.1 AESTHETICS

This section evaluates the aesthetic effects from the adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO. The analysis considers the quality and character of existing scenic resources and the potential visibility of existing and new cannabis facilities from surrounding areas, including physical changes, lighting, and glare.

Several aesthetics-related comments were received in response to the NOP. These commenters included CDFA, Yocha Dehe Wintun Nation, and several concerned residents. These comments identified concerns regarding the use of lighting by cannabis operations during nighttime hours (including lighting from greenhouses) and its impact on people and animals. There was also a request that the EIR evaluate local aesthetic impacts. These comments are considered in this section. The reader is referred to Appendix A for comments received on the NOP.

3.1.1 Environmental Setting

The baseline conditions for aesthetics are based on the following:

- visual character descriptions of distinct geographic areas of the County documented in the Yolo HCP/NCCP Draft EIS/EIR (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017);
- field review conducted in 2018 and 2019 to verify visual character of the County identified in the Yolo HCP/NCCP Draft EIS/EIR, which included photo documentation of common agricultural land use conditions and existing cannabis cultivation sites as viewed from public roadways; and
- documentation of designated scenic roadways and Cache Creek (as a state-designated scenic and wild river) based on the Yolo County General Plan Policy CO-1.13 and PRC Section 2010.

REGIONAL SETTING

Yolo County lies within California's Central Valley and the northern portion of the Sacramento–San Joaquin River Delta (Delta), directly west of Sacramento and northeast of Solano and Napa Counties. The Central Valley is predominantly flat, contrasting with California's Coast Ranges to the west and the Sierra Nevada to the east. The Sacramento River flows from north of Yolo County into the Delta at the southern end of the County. The Delta includes interconnected canals, streambeds, sloughs, marshes, and islands with agriculture as the primary land use. Visual resources within the undeveloped portions of the Central Valley are predominantly agricultural in nature, with expansive vistas consisting of open farmland and rangeland, orchards, vineyards, and distant views to the surrounding mountains.

VISUAL CHARACTER OF COUNTY

The visual character of the County contains diverse features in each of its areas and communities. This character includes natural habitat conditions and waterways, rural and agricultural land uses such as orchards, field crops, rangeland, supporting agricultural buildings, and rural communities consisting of Capay, Guinda, Rumsey, Clarksburg, Dunnigan, Esparto, Knights Landing, Madison, Monument Hills, Yolo, and Zamora.

Exhibits 3.1-1a through 3.1-1c provide photos of the typical agricultural character of the unincorporated area of the County taken from public views along County roadways. This includes views of orchards and row crops directly along County roadways as well as open viewsheds across agricultural fields that provide distant views of other agricultural uses, buildings, and trees. Land areas dedicated to the growing of agricultural crops vary in size depending on location in the County. They can range from 5 to 50 acres in size near the incorporated cities and unincorporated communities and 160 to over 1,000 acres along the I-505 and I-5 corridors as well as in the southern portion of the County.

Many agricultural uses include clusters of built features (buildings used for equipment storage and processing of agricultural product, offices, hoop houses and greenhouses, and shipping containers) such as those provided at Syngenta Seeds (see Exhibit 3.1-1c). Other examples of existing agricultural operations that have clustered areas of buildings and storage facilities include the Gambos Company (County Road 28 northwest of the City of Woodland), Grow West (SR 113 north of the City of Woodland), and Golden Farm Products (I-505 south of the City of Winters). The concentration of agricultural buildings tends to be the greatest in and adjacent to the cities and unincorporated communities of the County located along highways for transportation of product. However, there are clusters of agricultural buildings intermixed with active agricultural lands outside of these areas.

For the purposes of this analysis, Yolo County is divided into areas of distinct natural resource, geographic, or developed qualities to describe the varying visual and scenic resources found within the County: Capay Valley/Capay Hills, Sacramento River, Yolo Bypass/Delta, Putah Creek/Lake Berryessa, Cache Creek, Dunnigan Hills, and the valley floor. In addition, Yolo County contains four incorporated cities: Davis, West Sacramento, Winters, and Woodland. The University of California, Davis (UC Davis) lies adjacent to the city of Davis. Each of these areas is described in greater detail below, based in part on the analysis contained in the Yolo HCP/NCCP Draft EIS/EIR (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017).

Capay Valley/Capay Hills

The Capay Valley is a unique landform of low, flat alluvial soils that extends generally northwest from the community of Capay to the Colusa County border, following along Cache Creek. The valley and the adjoining Capay Hills, which form the eastern border of the valley, consist of a series of draws, canyons, and rangelands rising from the valley floor into the surrounding hills. Agriculture is the dominant land use within the valley, with large orchards and open rangeland contributing to the expansive vistas afforded from elevated viewpoints within the Capay Hills. Farm sites tend to be smaller in the valley as compared to the rest of the County. There are also currently limited commercial and production agricultural operations in Capay Valley that consist of multiple buildings and facilities. Examples of such operations include Cache Creek Lavender Farm, Seka Hills Olive Mill and Tasting Room, and Casa Rosa Farms. Capay Valley is also the location of several small unincorporated communities, including Capay, Brooks, Guinda, and Rumsey. Capay Valley lies between the Blue Ridge and Capay Hills that include a number of Yolo County's 20 mountain summits and peaks, including Bald Mountain, which is the prominent peak within the hills and affords open views to the west and east.

Sacramento River

The Sacramento River area includes those lands within the County generally located east of the Yolo Bypass and north of the city of West Sacramento, including the community of Knights Landing and the Elkhorn area. This area is predominantly alluvial plain that was created from the Sacramento River's meandering path and flood deposition and is composed primarily of farmland. Orchards dominate the landscape just north of West Sacramento; field crops are the most prominent features along the Sutter County border. Several canals, streambeds, sloughs, and marshes are intermixed with the agricultural lands. The Sacramento River area includes river vistas and other scenic resources typical of flat expanses dominated by riverine and wetland landscapes.



Source: Photo taken by Ascent Environmental in 2019

Photo 1: Roadway View of New Orchard



Source: Photo taken by Ascent Environmental in 2019

Photo 2: Roadway View of Established Orchard

Exhibit 3.1-1a Photos of Existing Visual Character of County



Source: Photo taken by Ascent Environmental in 2019

Photo 3: Roadway View of Row Crop Operation

Exhibit 3.1-1b Photos of Existing Visual Character of County



Source: Yolo County 2019



Source: Yolo County 2019

Exhibit 3.1-1c Public Views of Syngenta Seeds

Yolo Bypass/Delta

Similar in landscape and visual character to the Sacramento River area, the Yolo Bypass/Delta area comprises those lands within the Yolo Bypass itself as well as the city of West Sacramento (described further below) and the lowland areas within the Delta that lie to the south. This area contains the northern end of the Delta and is composed of both farmlands surrounding the community of Clarksburg as well as open grazing, agriculture, and wildlife habitat within the Yolo Bypass. This area also contains vineyards that dominate the landscape. The Yolo Bypass includes and lies adjacent to the Deep Water Ship Channel (DWSC), which affords unique visual character to the area and provides viewers with occasional glimpses of ships traffic traversing the surrounding agricultural landscape. The downtown Sacramento city skyline is a prominent feature from many vantage points within this area, particularly at night.

Putah Creek/Lake Berryessa

The Putah Creek/Lake Berryessa area demonstrates a cross-section of visual resources typical within the County as rangeland gives way to crop fields, and riverine landscapes adjoin developed areas. Putah Creek forms the southern border of and separates Yolo County from Solano County, flowing to the east from Lake Berryessa's Monticello Dam. The Putah Creek/Lake Berryessa area includes those lands generally south of the Yolo County Airport from the western County border to the city of Davis. This area includes rolling hills and canyons along the eastern edge of Blue Ridge (used predominantly as rangeland) located west and north of the city of Winters. East of Interstate 505 (I-505), the landscape becomes flatter and views are dominated by orchards and various other crops. Toward the eastern end of the area, the city of Davis's skyline joins the eastern horizon, although the city's generally low profile prevents it from interrupting the expansive views afforded both from I-505 and State Route 128 (SR 128).

Cache Creek

The Cache Creek area extends generally east from the community of Capay through the center of the County to the Yolo Bypass, just east of the city of Woodland. Within this area, Cache Creek becomes braided past gravel mining operations and consists of several shallow channels. Some riparian forest habitat is found along the creek. At the western end, the creek is restricted within levees before emptying into the Yolo Bypass. Adjoining the mining areas along the creek are a variety of crop fields, which give the landscape a diverse visual character where row crops intermingle with natural settings. The Cache Creek area also contains Monument Hill, which is the dominant feature of the horizon and affords uninterrupted views across the County.

Dunnigan Hills

The Dunnigan Hills area includes lands generally northwest of the community of Yolo, north of County Road 19 and to the west of I-5, including the towns of Dunnigan and Zamora. These hills extend northward to the Colusa County line and are a series of rolling hills used predominantly as rangeland. The Dunnigan Hills area also includes vineyards that are not as visible as the rangeland conditions. As a result, this area evokes a visual character similar to other open rangelands within the County, with sparse vegetation (mostly grasses) and grazing animals giving the area a pastoral character throughout.

Valley Floor

The valley floor area comprises the remaining lands within the County not included in the previous six areas, and generally includes those lands south of the Cache Creek area and north of the Putah Creek/Lake Berryessa area as well as lands east of the Dunnigan Hills area and west of the Sacramento River area. The area includes the cities of Woodland and Davis, as well as the communities of Esparto and Madison and Monument Hills. These lands are agricultural in character and include large stretches of field crops. The landscape within this area is predominantly flat, with expansive views of cultivated fields uninterrupted by natural or constructed landforms or significant development. Adding to the visual character of this area are intermittent farm implement storage and agricultural industrial buildings, including barns, processing facilities, and storage areas, which support the valley floor area's agricultural character.

Davis and UC Davis

Located in the southeastern portion of Yolo County, the city of Davis is primarily an urban landscape within its city limits, dotted with parks and greenbelts within the urbanized areas. The UC Davis campus, located immediately southwest of the city of Davis but largely integrated with the city, is located on approximately 2,900 acres of unincorporated land and is one of the most visually prominent features in the area with relatively large buildings and a water tower visible from I-80 and many vantage points in the area. Land surrounding the city is primarily characterized by agriculture and open space land uses.

West Sacramento

The city of West Sacramento is bounded by the Sacramento Bypass to the north, the Sacramento River to the north and east, and the DWSC and Yolo Bypass to the west. The northern portions of the city are developed, and the natural and human-made waterways and bypasses prevent further development to the north, east, and west. Therefore, most major development is spreading southward into lands where the current use is primarily agriculture. Development that is occurring in the northern, eastern, and western portions of West Sacramento is either occurring on disjunct parcels of agricultural land or consists of redevelopment and infilling of vacant parcels in older portions of the city. Much of the city consists of urban landscapes, with distinct features being several high-rise buildings and bridges along the Sacramento River and industrial facilities at the Port of West Sacramento and nearby segments of the DWSC.

Winters

The city of Winters consists largely of historic and tree-lined neighborhoods, architectural landmarks, as well as panoramic views of Mt. Vaca and the Vaca Mountains. Farmhouses and orchards that are scattered on the periphery of the city and the riparian corridor along Putah Creek are also considered valuable features within the visual landscape of the city.

Woodland

The city of Woodland is located in central Yolo County, approximately 20 miles northwest of the city of Sacramento on I-5 and 8 miles west of Sacramento International Airport. It is 7 miles north of the city of Davis. The Yolo Bypass of the Sacramento River lies approximately 3 miles east of the city, and Willow Slough is located about 1 mile to the southeast. The surrounding landscape is characterized by row crops, pastures, orchards, and vineyards, as well as natural landscapes such as annual grasslands, riparian forest, freshwater marsh and wetlands, and lake habitats. I-5 traverses diagonally from the northwest to southeast across the city, dividing the community into two distinct areas, with most of the residential and commercial development on the southeast and industrial development in the northwest quadrant of the city.

ROADWAYS

Five roadways within the County are designated by Yolo County 2030 Countywide General Plan Policy CC-1.13 as scenic roadways (see Exhibit 3.1-2):

- State Route 16 (Colusa County line to Capay),
- State Route 128 (Winters to Napa County line),
- County Roads 116 and 116B (Knights Landing to eastern terminus of County Road 16),
- County Roads 16 and 117 and Old River Road (County Road 107 to West Sacramento), and
- South River Road (West Sacramento city limits to Sacramento County line).

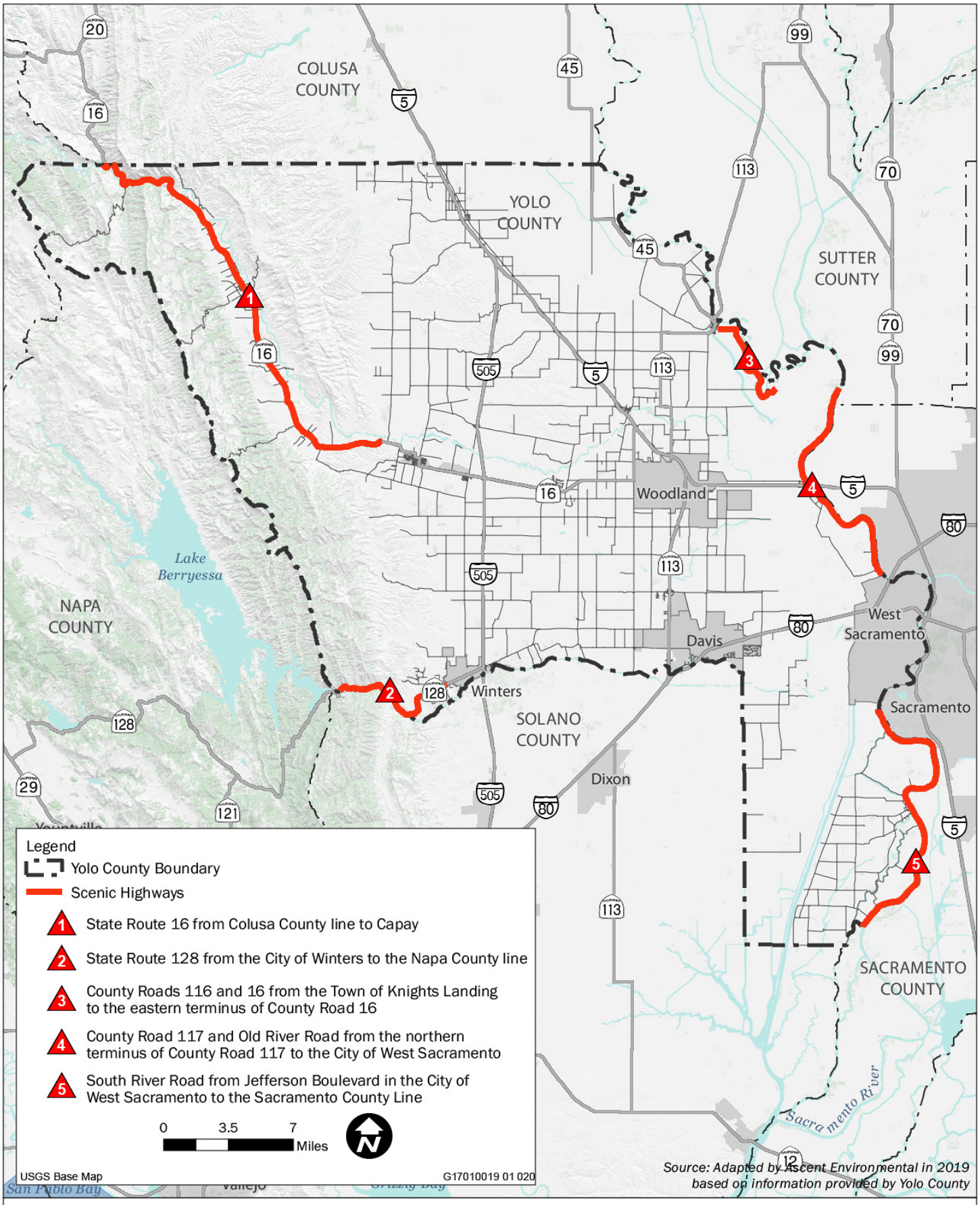


Exhibit 3.1-2 **County-Designated Scenic Roadways**

SCENIC VIEWSHEDS IN THE COUNTY

The 2030 Yolo County Countywide General Plan Draft EIR visual analysis identified the following areas of the County as scenic viewsheds (Yolo County 2009:744):

- I-5 along the Dunnigan Hills (approximately 13 miles in length as viewed from I-5);
- views within the Clarksburg Agricultural District;
- SR 16 through the Capay Valley (approximately 25 miles in length as viewed from SR 16);
- views of the Sacramento River along County Road 116, Old River Road, and South River Road (approximately 31 miles in length as viewed from these roadways);
- views westward toward Blue Ridge from the communities of Capay, Esparto, and Madison, and I-505 (approximately 21 miles in length as viewed from SR 16 and I-505);
- views of Putah Creek along SR 128 (approximately 5 miles in length as viewed from SR 128);
- views eastward toward the City of Sacramento skyline from I-5 and SR 113 (approximately 8 miles in length as viewed from I-5 and SR 113); and
- views of and along Cache Creek from the communities of Rumsey, Guinda, Capay, Esparto, Madison, and Yolo (approximately 25 miles in length as viewed from SR 16).

LIGHT AND GLARE

As noted above, unincorporated Yolo County is a predominantly rural, agricultural region with approximately 35 dispersed areas of existing development. Because of its rural character, night lighting and glare mostly occur within and around these developed communities, although individual areas supporting agriculture and other industries also produce some nighttime lighting. Existing sources of ambient nighttime lighting generally include neon and fluorescent signs in developed areas; exterior lighting along buildings for safety, architectural accent, or to illuminate nighttime operations; lights within buildings that illuminate the exteriors of buildings through windows; landscape and wayfinding signage lighting; street and parking lot lighting; and vehicle headlights. Existing sources of lighting in the rural areas of the County also includes agricultural lighting. This can include outdoor security lighting over fields, lights from within operational and production buildings, and lights coming from greenhouses. Glare is created by reflection of natural (i.e., sunlight) and artificial light off of existing windows and building surfaces. Glare occurs on a site-specific or building by building basis, and there are no general trends related to glare in the County.

VISUAL CHARACTERISTICS OF EXISTING CANNABIS CULTIVATION OPERATIONS IN THE COUNTY

Although existing cannabis cultivation sites are located countywide, a large portion of these sites occur along the SR 16 corridor west of the City of Woodland (see Exhibit 2-2) on the valley floor and extending up into the Capay Valley. These sites are located in rural and agricultural land areas on parcels ranging in size from 2 acres to up to 318 acres (the average parcel size is approximately 40 acres). The average cannabis cultivation activity footprint (cultivation garden canopy area and land area used to support the cultivation activities) is approximately 2 acres in size. On-site features consist of a range of single-story structures that are also typically found with other existing agricultural uses in the County, including ancillary nursery/greenhouses, temporary hoop houses, storage buildings for equipment and materials, processing buildings/containers, fencing, and housing (see Exhibit 3.3-1c as compared to Exhibits 3.1-3a through 3.1-3d).



Photo 1. Outdoor Cultivation Buildings.



Photo 2. Outdoor Cultivation.



Photo 3. Mixed-light Cultivation Facility

Source: Ascent 2019

X17010019.01 020

Exhibit 3.1-3a **Existing Cannabis Cultivation Facilities**

ASCENT ENVIRONMENTAL



Source: Yolo County 2019



Source: Yolo County

Exhibit 3.1-3b Public Views of Cannabis Cultivation Structures



Source: Yolo County 2019



Source: Yolo County 2019

Exhibit 3.1-3c Distant Public Views of Cannabis Cultivation Sites



Source: Yolo County



Source: Yolo County 2019

Exhibit 3.1-3d Public Views of Fenced Cannabis Cultivation Sites

Exhibits 3.1-3a through 3.1-3d provide photos of existing cultivation sites as viewed from public roads. As shown in these exhibits the character of cannabis cultivation sites may differ from the character of other agricultural operations in the County. While the average cannabis cultivation parcel size is 40 acres, the cannabis cultivation activity footprint is generally no larger than 2 acres because the cultivation garden canopy is limited to 1 acre under Yolo County Code Section 5-20.04(A)(2)(a)(1). As a result, the operations dedicated to cultivation are more densely arranged with the supporting buildings and greenhouses located close to each other as compared to other County agricultural operations such as row crops, orchards and vineyards, and pastureland that commonly use the entire parcel area. Cultivation sites often include solid fencing that obstruct open public views across agricultural fields. Other features that differ from existing agricultural operations include security features (e.g., gates, security personnel, and guard dogs) and in some cases, the lack of maintenance of the remaining land areas of the parcel that are not used as part of the cultivation operation.

3.1.2 Regulatory Setting

FEDERAL

Wild and Scenic Rivers Act

There are no federally designated Scenic Byways or Wild and Scenic Rivers in Yolo County and no federal regulations related to visual resources relevant to the analysis of the CLUO.

STATE

California Energy Commission Building Energy Efficiency Standards for Outdoor Lighting

Title 24, Parts 1 and 6, Building Energy Efficiency Standards, adopted by the California Energy Commission on November 5, 2003 includes requirements for outdoor lighting. These standards are updated periodically. The last update took effect in July of 2014.

The requirements of the outdoor lighting standards vary according to "lighting zone." The allowed lighting power is based on the brightness of existing lighting in the surrounding area. This is because the eyes adapt to darker surrounding conditions, and less light is needed to properly see. Providing greater power than is needed potentially leads to unwanted glare, and to an increasing spiral of brightness as over-bright projects become the surrounding conditions for future projects, causing future projects to unnecessarily consume energy and contribute to light pollution.

The California Energy Commission defines the boundaries of lighting zones based on U.S. Census Bureau boundaries for urban and rural areas, as well as the legal boundaries of wilderness and park areas. The smallest amount of power is allowed in Lighting Zone 1, and increasingly more power is allowed in Lighting Zones 2, 3, and 4. By default, government-designated parks, recreation areas, and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government.

California Code of Regulations

CCR Title 3, Food and Agriculture, Division 8, Cannabis Cultivation, Chapter 1, Cannabis Cultivation Program includes following requirements for the control of light sources at cultivation sites:

- Section 8304(c): All outdoor lighting used for security purposes shall be shielded and downward facing.
- Section 8304(g): Mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare.

California Scenic Highway Program

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

SR 128 in Yolo County was recently added state highway scenic system under Assembly Bill 998 (2019) that added the highway to Section 263.1 of the Streets and Highway Code. A portion of SR 16 is eligible for official designation. No plans or scenic corridor protection regulations have been proposed or adopted, which is a precondition of official designation (Streets & Highways Code Sections 261, 262).

California Wild and Scenic Rivers

Cache Creek is designated as a California Wild and Scenic River from "1/4 mile below Cache Creek Dam to Camp Haswell" (PRC Section 2010). The segments in the County are designated as follows (see Exhibit 3.1-4):

- 1 mile downstream of Davis Creek confluence to western boundary of Section 6 T12N R4W is designated as *Wild*,
- western boundary of Section 6 to the confluence with Bear Creek is designated as *Scenic*, and
- Bear Creek confluence to Camp Haswell is designated as *Recreational*.

These designations are defined by the Act (PRC Section 5093.54) as:

> (a) *Wild* rivers, which are those rivers or segments of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted; (b) *Scenic* rivers, which are those rivers or segments of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads; and (c) *Recreational* rivers, which are those rivers or segments of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

These segments are protected under the California Wild and Scenic Rivers Act (PRC Sections 5093.50 et seq.). This act preserves certain designated rivers in their free-flowing state for the benefit and enjoyment of the public. These rivers must possess extraordinary scenic, recreational, fishery, or wildlife values. The Natural Resources Agency is responsible for coordinating activities of state agencies that may affect these designated rivers.

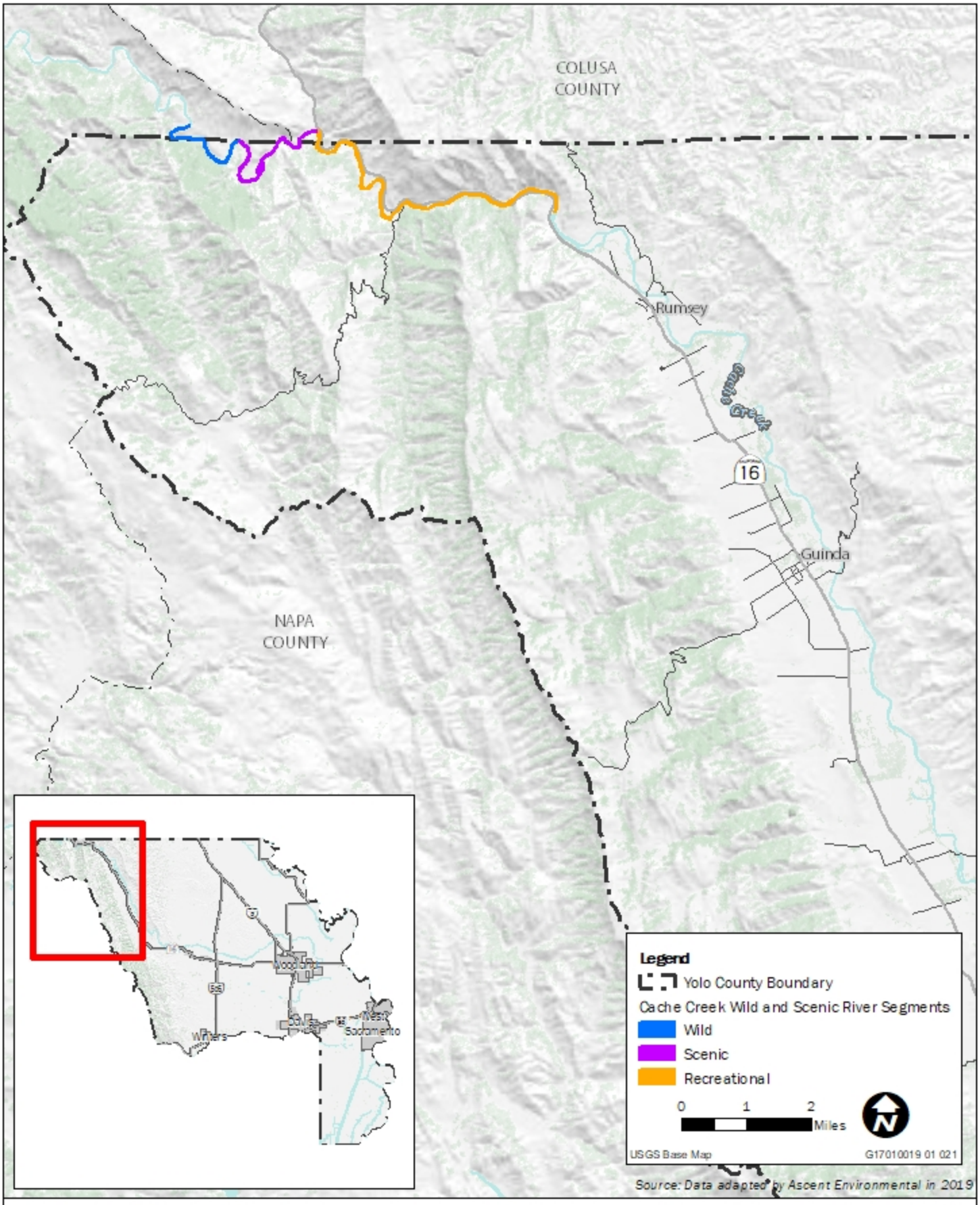


Exhibit 3.1-4 **State Wild and Scenic River Designation in Yolo County**

LOCAL

Yolo County 2030 Countywide General Plan

General Plan Goal CC-1 and the policies listed below direct that the rural character of the County is protected and enhanced, including the unique and distinct character of the unincorporated communities. The following policies are relevant to the project:

- **Policy CC-1.2:** Preserve and enhance the rural landscape as an important scenic feature of the County.
- **Policy CC-1.3:** Protect the rural night sky as an important scenic feature to the greatest feasible extent where lighting is needed.
- **Policy CC-1.5:** Significant site features, such as trees, water courses, rock outcroppings, historic structures and scenic views shall be used to guide site planning and design in new development. Where possible, these features shall become focal points of the development.
- **Policy CC-1.8:** Screen visually obtrusive activities and facilities such as infrastructure and utility facilities, storage yards, outdoor parking and display areas, along highways, freeways, roads and trails.
- **Policy CC-1.10:** Protect existing ridgelines and hillsides from visually incompatible development.
- **Policy CC-1.12:** Preserve and enhance the scenic quality of the County's rural roadway system. Prohibit projects and activities that would obscure, detract from, or negatively affect the quality of views from designated scenic roadways or scenic highways.
- **Policy CC-1.13:** The following routes are designated as local scenic roadways, as shown in Figure LU-3 (Scenic Highways):
    - State Route 16 (Colusa County line to Capay)
    - State Route 128 (Winters to Napa County line)
    - County Roads 116 and 116B (Knights Landing to eastern terminus of County Road 16)
    - County Roads 16 and 117 and Old River Road (County Road 107 to West Sacramento)
    - South River Road (West Sacramento city limits to Sacramento County line)
- **Policy CC-1.15:** The following features shall be protected and preserved along designated scenic roadways and routes, except where there are health and safety concerns:
    - Trees and other natural or unique vegetation
    - Landforms and natural or unique features
    - Views and vistas
    - Historic structures (where feasible), including buildings, bridges and signs
- **Policy CC-1.16:** The following features shall be stringently regulated along designated scenic roadways and routes with the intent of preserving and protecting the scenic qualities of the roadway or route:
    - Signage
    - Architectural design of adjoining structures
    - Construction, repair and maintenance operations
    - Landscaping
    - Litter control
    - Water quality
    - Power poles, towers, above-ground wire lines, wind power and solar power devices and antennae

- **Policy CC-1.17:** Existing trees and vegetation and natural landforms along scenic roadways and routes shall be retained to the greatest feasible extent. Landscaping shall be required to enhance scenic qualities and/or screen unsightly views and shall emphasize the use of native plants and habitat restoration to the extent possible. Removal of trees, particularly those with scenic and/or historic value, shall be generally prohibited along the roadway or route.

- **Policy CC-1.19:** Unscreened outdoor storage of industrial and commercial parts and materials, salvage or junk, dismantled vehicles, used or new vehicle sales or, building materials for sale and similar materials, uses and things along designated scenic roadways and routes shall be prohibited.

- **Policy CC-4.12:** Require "green" design, construction and operation including:

  L. Light pollution reduction to protect "dark skies."

- **Policy CC-4.15**: Reflect a human scale in architecture that is sensitive, compatible and distinctive to both the site and the community.

Yolo County Community Plans

In addition to the General Plan, the following local plans provide further area-specific policy provisions, design standards and guidelines that address aesthetics and are relevant to the project:

Esparto Community Plan (2019)

- **Policy E-LU.2:** The comprehensible and compact scale of the town shall be maintained with businesses, schools, parks and social centers within walking distance of residences.

- **Policy E-LU.12**: All new Commercial development shall make use of the adopted Yolo County Commercial Design Guidelines. Additionally, all commercial development shall meet the following community design standards:

  - All lighting shall be shielded, downward directed, and located far enough from property lines to prevent spillover light on adjacent properties.

  - Rooftop and ground-level mechanical and service equipment shall be screened from public view.

  - Existing mature trees shall be incorporated into the design of the project to the extent feasible.

- **Policy E-LU.14:** Use standard Commercial Local (C-L) and Commercial General (C-G) zoning in Esparto with differentiated development guidelines for the Historic Business District and Esparto Depot District.

- **Policy E-LU.15:** The Historic Business District is defined as the lots designated for local commercial land use fronting Yolo Avenue and Woodland Avenue between North Grafton Street and Fremont Street. New development in the Historic Business District shall reflect the form, spacing, height, and materials of the historical structures, and should incorporate the following elements:

  - New or renovated buildings shall have a maximum front and side setback of 10 feet. The rear setback shall be a minimum of 10 feet unless adjacent to residentially zoned property where 20 feet shall be required.

  - New buildings shall be two-stories or a minimum of 22 feet tall.

  - Building frontage of new or renovated structures shall be 80% to 100% of the frontage measured from side property line to side property line. From 40% to 75% of a commercial building frontage shall be clear windows that allow views of indoor space or product display areas. The windows shall be no more than 3 feet above the sidewalk with a vertical surface between 4 and 8 feet tall.

- No more than 30 feet of horizontal distance of a street facing wall shall be provided without architectural relief such as windows.

- Commercial buildings shall have a primary entrance door facing either Yolo Avenue or Woodland Avenue. Entrances at building corners may be used to satisfy this requirement. Building entrances may include doors to individual shops or businesses, or a lobby, plaza or courtyard which accesses shops or businesses.

- Off-street parking shall be prohibited in the area generally bounded by Grafton Street and Woodland Avenue for the parcels fronting Yolo Avenue unless located behind the buildings and not accessed by a driveway from Yolo Avenue.

- **Policy E-LU.18:** The architecture and design of structures should be coordinated throughout the site to accent the historic Esparto Depot building and compliment the adjacent Historic Business District.

Town of Knights Landing Community Plan (1999)

- **Community Commercial Policy 1:** Development of Mill Street, from Front to Sixth, with parking, and exterior wall remodeling to reflect the Victorian era. To maintain the historic character of the historic commercial district, remodeling or renovation of these buildings shall be required to conform to the look and feel of the original structure, as shown in UCD drawings of the front elevations of several buildings. If it can be shown that a building is not salvageable economically, and must be demolished, then its replacement should also be designed to conform to the spirit of the UCD drawings.

- **Community Commercial Policy 2:** Complementary schemes (except on Locust St,), landscaping and exterior wall remodeling for other streets which parallel or are perpendicular to Main Street.

- **Development Standards for Commercial Areas**

  - **Standard 2:** Commercial site boundaries adjacent to residential areas shall be visually screened with ornamental masonry walls and landscaping.

  - **Standard 3:** All outdoor storage areas shall be visually screened with ornamental fencing or walls, and landscaping; site security is to be achieved by site planning and building design.

  - **Standard 4:** Street trees and parking lot landscaping (including shade trees), with sprinkler irrigation, shall be provided for all commercial sites.

Capay Valley Area Plan (2010)

- **Land Use Policy 1:** The County shall ensure land uses are compatible with the rural agricultural quality of life.

- **Aesthetics Policy 1:** Support the effort to secure state Scenic Highway status for State Route 16.

  - **Implementation Measure 1**: The County has adopted official County scenic designation for State Route 16 within the Capay Valley Study Area.

- **Aesthetics Policy 2**: Ensure architectural quality and design consistency within existing communities of the Capay Valley along SR 16.

  - **Implementation Measure 1**: In consultation with local businesses and residences, and citizen advisory committees the County has developed design guidelines for new commercial structures proposed to be constructed within the existing communities.

  - **Implementation Measure 2**: The County shall review building permits to ensure consistency with the Design Guidelines.

- **Implementation Measure 3**: New structures or landscaping proposed within Rumsey, Guinda, Capay or Brooks must be consistent with certain historical or unique design features specific to those communities, in particular those features which influence access, parking, signage, view, drainage, privacy, safety, lighting and security.

Clarksburg Area Community Plan (2015)

- **Policy L1**: Maintain the small town community atmosphere and agricultural characteristics of the Clarksburg Plan area.

- **Policy L2**: Improve, develop, and reuse commercial and industrial zoned areas in a manner compatible in design and scale with the existing character of the Clarksburg town area.

- **Policy L4**: Any growth should enhance the stability and diversity within, and complement the unique qualities of, the Clarksburg Plan area, while maintaining the amenities and values of small town rural life.

- **Policy L13**: Protect the rural night sky as an important scenic feature, to the greatest feasible extent, where new lighting is needed.

- **Policy OS2**: Existing natural vegetation and wildlife should be protected and scenic vistas and riverfront areas along the Sacramento River and sloughs within the Clarksburg Plan area should be preserved.

    - **Implementation Measure IM-SR1**: Protect vegetation and aesthetic values along scenic routes and corridors from new construction and development.

Dunnigan Community Plan (2001)

- **Policy D-LU9:** All new development shall be subject to the development standards described in Community Design Guidelines and Development Standards.

- **Policy D-LU10:** All buildings on property fronting I-5 in the expansion areas shall be set back at least 50 feet from the CalTrans right-of-way, provided however, that this minimum may be reduced by the Director of Planning and Public Works based on the following findings:

    a. The building and related features, including parking lots, are adequately screened from view from the freeway corridor; and,

    b. Noise impacts on the occupants of the building have been adequately mitigated.

In all cases, a detailed landscaping plan shall be required, subject to the review and approval of the County. Exceptions to this setback requirement may also be granted for sections of on-ramps and off-ramps outside the main freeway corridor.

- **Policy D-D2:** Landscaping shall be required in all development projects subject to Site Plan Review. Landscaping plans shall include a generous number of trees in a variety of sizes. The landscape plan must comply with the Model State Ordinance or the County Ordinance for Water Efficient Landscape.

- **Policy D-D4:** New development shall be maintained in a neat and orderly manner at all times. The storage of abandoned vehicles or refuse in areas visible from a public street shall be prohibited.

- **Policy D-D6**: New development shall be designed to minimize conflicts and potential nuisance problems between land uses, including light, glare and noise.

- **Policy D-D26**: Trash areas shall be screened and located away from adjoining residential neighborhoods.

- **Policy D-D27**: Existing mature trees shall be incorporated into the design of the project to the maximum extent feasible.

- **Policy D-D29**: Ground level mechanical and service equipment, including satellite disks, shall be screened using fencing, landscaping, walls, or a combination.

- **Policy D-D31**: All parking lots shall provide landscaping and shall be setback a minimum of ten feet from the street. The setback area shall be landscaped to screen parked vehicles from public view. To reduce the heat generated by the parking lot surface and thereby reduce air conditioning needs, the landscape plan shall include drought tolerant shade trees that will (after five years of growth) shade 50 percent of all paved surfaces.

- **Policy D-D32**: Landscaping and street trees shall be required for all new commercial development, including all parking lots.

- **Policy D-D42**: Building setbacks should be proportionate to the scale of the buildings. Larger structures should be set back further on the lot to provide balance with open space and so that buildings do not impose upon neighboring properties.

- **Policy D-D44**: Lights shall be hooded, and located and designed to not shine off site. Illuminated highly reflective or mirrored signs within view of Interstate 5 shall be prohibited.

- **Policy D-D45**: Large expanses of parking area to be avoided. Landscaping, including trees, shrubs and ground cover shall be provided throughout parking areas in accordance with County standards.

- **Policy D-D46**: All parking areas shall be visually screened from the street view. Landscaped berms and shrubs, combined with low walls, may be used to screen parking areas.

- **Policy D-D47**: Loading facilities should be located at the rear or side of the building and screened from view. When loading facilities are located on the front of the building they should be adequately screened and designed so that the loading areas do not dominate the view from the street.

Monument Hills Community Plan (1984)

- **4.4 Service Center/Commercial Building Standard D**: The commercial area shall be required to install and maintain landscaping according to the overall landscaping plan. The landscaping plan shall be approved by the Yolo County Redevelopment Director at the site plan review stage of project review for the commercial structures.

- **10.0 Architectural Controls A**: All plans for building construction shall be subject to architectural review by a homeowner's association and design guidelines contained in covenants, conditions and restrictions.

Yolo County Design Guidelines

The Yolo County Design Guidelines expand on the policies of the 2030 Countywide General Plan, community plans, and County zoning and development regulations. The Design Guidelines provide criteria for incorporating preferred design elements into new residential, commercial, and industrial projects to ensure that the proper site design and architectural character is attained. Design elements addressed in the Design Guidelines include landscaping, buffering from adjacent land uses, signage, lighting and measures to address light pollution, building design, and architectural features. These Design Guidelines do not include agricultural design guidelines but discretionary projects located in agriculturally zoned lands are reviewed for compatibility with the existing setting, including any community plan and General Plan policies.

General Design Guidelines

The General Design Guidelines were adopted by the Board of Supervisors on September 29, 2009. These guidelines are intended to promote innovative design concepts for new development in the industrial, commercial, and residential zoning districts. The General Design Guidelines provide an overarching concept for the specific design guidelines described below.

Commercial Design Guidelines
The Commercial Design Guidelines provide guidance regarding orientation and placement of built elements, parking areas, and exterior appearances of the site. These provide more detail than the guidelines listed in General Design Guidelines.

Industrial Design Guidelines
The Industrial Design Guidelines provide guidance for the site design and building design of industrial sites. This can include research and testing facilities, light and heavy manufacturing facilities, agricultural industrial complexes, or warehouses.

Residential Design Guidelines
The Residential Design Guidelines encourage new residential development to be designed in a sustainable manner that would create a variety of housing options to meet the needs of the population.

3.1.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

Characterization of visual changes and determination of whether they are considered adverse are subjective undertakings. Different viewers may draw different conclusions about the nature and severity of visual changes. To evaluate potential for adverse aesthetic affects this section defines the baseline visual character and scenic resource conditions of the County. The baseline conditions for aesthetics are described in Section 3.1.1, "Environmental Setting," and are based on the following:

- visual character descriptions of distinct geographic areas of the County documented in the Yolo HCP/NCCP Draft EIS/EIR (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017);
- field review conducted in 2018 and 2019 to verify visual character of the County identified in the Yolo HCP/NCCP Draft EIS/EIR, which included photo documentation of common agricultural land use conditions and existing cannabis cultivation sites as viewed from public roadways (see Exhibits 3.1-1a through 3.1-1c and 3.1-3a through 3.1-3d); and
- documentation of designated scenic roadways and Cache Creek (as a state-designated scenic and wild river) based on the Yolo County General Plan Policy CO-1.13 and PRC Section 2010.

The aesthetic impact analysis qualitatively evaluates whether adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could create adverse visual effects using the thresholds of significance identified below and County General Plan policies listed in Section 3.1.2, "Regulatory Setting." This analysis compares assumed character of cannabis uses (cultivation and noncultivation) and cannabis use locations for EIR analysis purposes under each alternative (Exhibits 2-3 through 2-8) to the existing agricultural and rural character of the County to determine the degree of the visual character or view alteration and proximity to an identified scenic resource (designated scenic roadway and scenic and wild designated portions of the Cache Creek). Photos of existing cannabis cultivation sites in the County as well as cultivation site relocation and new cannabis use development assumptions in Section 3.0, "Approach to the Environmental Analysis, "and Appendix D were used to evaluate the extent of potential change in visual conditions.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative aesthetic effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address known visual resources in the County (scenic highways, natural landscape conditions, rural and agricultural land use conditions) as well as potential effects associated cannabis operations (land disturbance, building construction, and use of lighting).

The project would result in a significant impact on visual resources if it would:

- have a substantial adverse effect on a scenic vista or viewshed;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or County-designated scenic roadway;
- substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage points); or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

IMPACT ANALYSIS

Impact AES-1: Have a Substantial Adverse Effect on a Scenic Vista or Viewshed

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, would introduce features and buildings that may be visible from scenic vistas but would not obstruct these viewsheds. Implementation of the CLUO would require cannabis sites to meet County building and site design standards, screen outdoor cultivation, and maintain site conditions to avoid adverse effects to scenic views. This impact would be **less than significant** for all alternatives.

A scenic vista is considered to be a location from which the public can experience unique and exemplary high-quality views, including panoramic views of great breadth and depth, often from elevated vantage points. While much of the County is generally flat, some locations afford sweeping views of the landscape that provide scenic vistas. As further discussed in Section 3.1.1, “Environmental Setting,” scenic viewsheds in the County include the following:

- I-5 along the Dunnigan Hills;
- views within the Clarksburg Agricultural District;
- SR 16 through the Capay Valley;
- views of the Sacramento River along County Road 116, Old River Road, and South River Road;
- views westward toward Blue Ridge from the communities of Capay, Esparto, and Madison, and I-505;
- views of Putah Creek along SR 128;
- views eastward toward the City of Sacramento skyline from I-5 and SR 113; and
- views of and along Cache Creek from the communities of Rumsey, Guinda, Capay, Esparto, Madison, and Yolo. As shown in Exhibit 3.1-4, the northern portion of Cache Creek is designated as a California Wild and Scenic River.

The General Plan identifies the rural landscape (Policy CC-1.2), natural features and historic buildings (Policy CC-1.5), ridgelines and hillsides (Policy CC-1.10), the general scenic quality of the rural roadway system (Policy CC-1.12), and designated local scenic roadways (Policy CC-1.13) including views and vistas from scenic roadways, as important scenic features of the County. The General Plan also specifies that obtrusive activities and facilities such as infrastructure and utility facilities, storage yards, outdoor parking and display areas should be visually screened along highways, freeways, roads and trails (Policy CC-1.8). The following sections of the CLUO incorporate these policy provisions to ensure implementation on cannabis projects:

- Section 8-2.1408(B) Agricultural Maintenance: Cannabis uses on agricultural land must demonstrate to the satisfaction of the County Agricultural Commissioner that the majority of the parcel, excluding the area in cannabis cultivation, will be used for agricultural activities and/or will be properly maintained (e.g. weed abatement, pest management, etc.) when not in agricultural use to, among other things. avoid maintenance deficiencies that conflict with agriculture on other nearby properties.

- Section 8-2.1408(F) Building Design: Design and construction of buildings and structures shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, environmental controls (including temperature, humidity, and ventilation), safety and security, lighting, aesthetics, energy use, and other appropriate impact mitigation. Design, materials, and general appearance must be compatible with the character and scale of what is allowed in the applicable zone.

- Section 8-2.1408(H) Cultural Resources: Includes requirements for identification and protection of identified historic resources including buildings.

- Section 8-2.1408(Y) Landscaping: Landscaping and irrigation shall be provided consistent with the requirements of the zone.

- Section 8-2.1408(KK) Screening: Applicants for outdoor (and mixed light if screening is required) cannabis cultivation shall submit a screening plan (including details such as location, height, material or species, etc.) that achieves the following:

    1. Outdoor cultivation (including hoop houses) shall be screened to the maximum extent feasible to avoid visibility from public rights-of-way. Mixed light cultivation and indoor cannabis uses are not required to be screened, unless determined by County staff that screening is necessary for security purposes.

    2. Screening may be vegetative or in the form of fencing, at the County's discretion, dependent on circumstances at the site and in the surrounding area.

    3. Vegetative screening is subject to approval by the County Agricultural Commissioner to ensure proposed species will not harbor agricultural pests. Native, drought-tolerant species are encouraged. The applicant must demonstrate that the proposed vegetative screening is reasonably expected to provide the intended screening within five years.

    4. All fencing, walls, hedges, and trees, if allowed, must meet the minimum requirements of Section 8-2.1005, Fencing and Walls, Hedges, and Trees, of the County Zoning Regulations.

    5. Fencing design and materials shall be consistent with the surrounding area, remain in good repair, and shall not significantly diminish the visual quality of the site or surrounding area.

    6. Sites not visible from public rights-of-way are not required to be screened, unless determined by County staff that screening is necessary for security purposes.

- Section 8-2.1408(OO) Site Design: Site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (biological, cultural, trees, etc.) and other appropriate impact mitigation. All required permits shall be obtained. Operations shall comply with Sections 8-2.1002, Area of Lots, and 8-2.1004, Height Regulations, of the County Zoning Regulations as applicable.

- Section 8-2.1408(PP) Site Maintenance: Permittee shall at all times maintain, manage, and operate the site, all improvements and alterations, and all structures, in good repair, acceptable in appearance, and in reasonably safe condition, including securing all necessary licenses and permits for this work. The site shall be kept free of litter, clutter, and graffiti. The permittee shall prevent and eliminate conditions that constitute a public nuisance.

- Section 8-2.1408(RR) Tree Protection: Protection of trees is encouraged consistent with General Plan policies and the County Oak Woodland Conservation and Enhancement Plan. Protections shall include a prohibition on detrimental activity within the dripline. Removal of native trees and tree clusters or stands, particularly oak woodlands, remnant valley oaks, and riparian woodlands, is prohibited.

- Section 8.2-1412(C) Cultivation Site Restoration: Upon revocation of a Cannabis Use Permit or abandonment of a permitted cultivation site, the permittee and/or property owner shall remove all materials, equipment and improvements on the site that were used in connection with the cannabis use, including but not limited to concrete foundations and slabs, bags, pots, or other containers, tools, fertilizers, pesticides, fuels, hoop house frames and coverings, irrigation pipes, water bladders or tanks, pond liners, electrical lighting fixtures, wiring and related equipment, fencing, cannabis, or cannabis waste products, imported soil or soil amendments not incorporated into native soil, generators, pumps, or structures not adaptable to non-cannabis permitted use of the site. If any of the above described or related material or equipment is to remain, the permittee and/or property owner shall prepare a plan and description of the non-cannabis continued use of such material or equipment on the site. The property owner shall be responsible for execution of the restoration plan, subject to monitoring and periodic inspection by the County. For purposes of this Subsection, "abandonment" shall mean failure to obtain a County Cannabis License to cultivate on the permitted cultivation site for three consecutive years.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way and would not create a new physical feature that would completely block scenic viewsheds. Given these CLUO requirements, no obstruction of scenic vista or viewsheds are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the 78 existing and eligible cannabis cultivation sites that currently exist in the County. Only one of the nine cultivation sites assumed to relocate under this alternative is located within a scenic viewshed (SR 16 and Cache Creek viewshed). Physical features (e.g., barns and greenhouses) housing, temporary hoop houses, and fencing) from this relocated operation may be visible from SR 16 and Cache Creek viewshed but would not create new development or massing that would completely or substantially obstruct public views or a scenic viewshed because of the small extent of change (2 acres) along the 25 mile viewshed corridor. This alternative would not result in an expansion of cannabis uses or place any cannabis use near the designated wild and scenic portions of Cache Creek that could obstruct views of the creek (see Exhibit 3.1-5).

Existing and relocated cultivation sites would be subject to CLUO standards that are expected to result in improved visual character conditions of cultivation sites by requiring maintenance of the cultivation site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cultivation from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed cultivation sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 1.

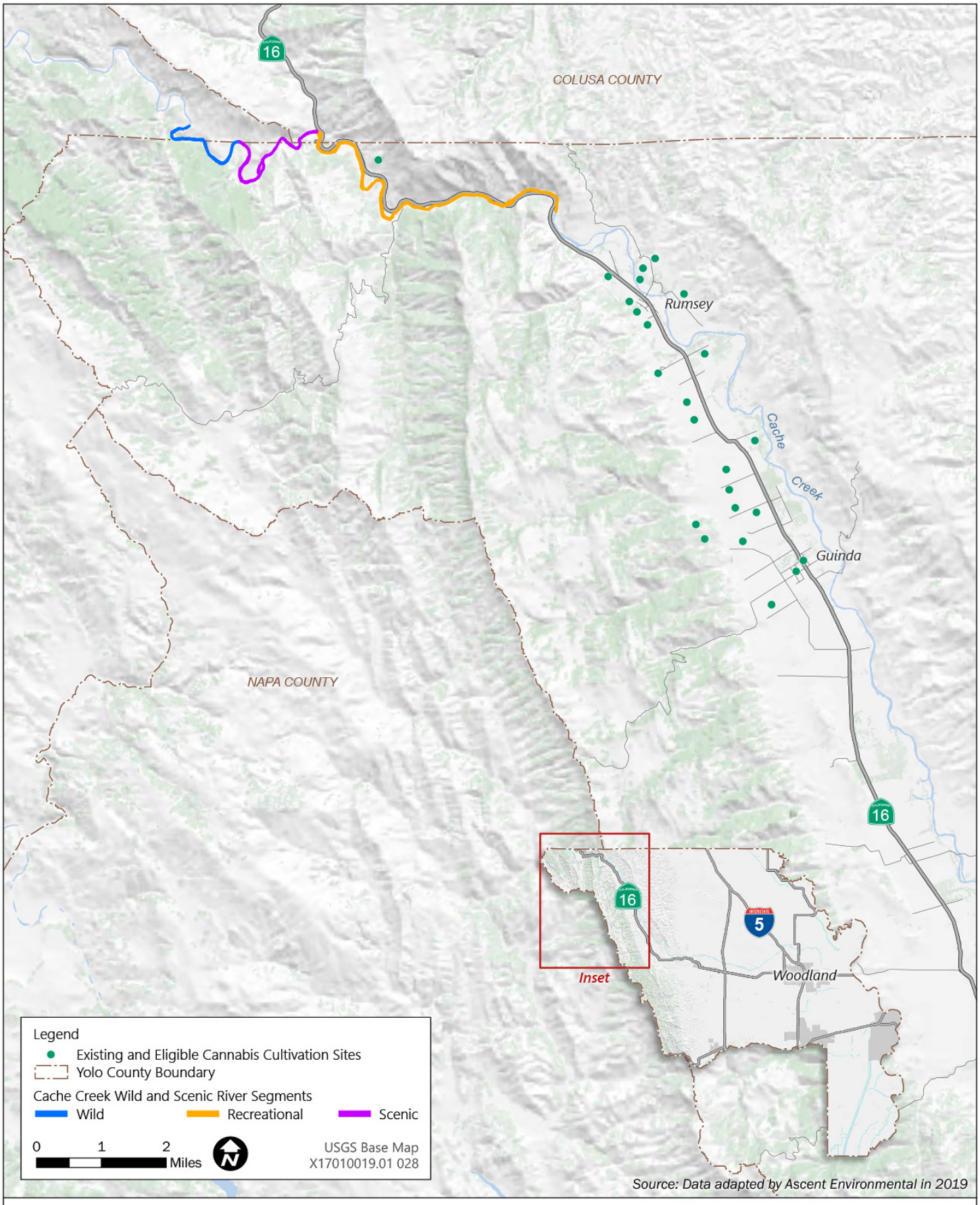


Exhibit 3.1-5 **Alternative 1 Cannabis Uses and State Wild and Scenic Rivers**

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 2-5, this alternative assumes new cannabis uses could be located in the following scenic viewsheds:

- I-5 along the Dunnigan Hills viewshed: 7 new noncultivation uses
- SR 16 through the Capay Valley and Cache Creek viewshed: 13 new noncultivation uses
- Blue Ridge viewshed from the communities of Capay, Esparto, and Madison, and I-505: 8 new cultivation and noncultivation uses
- Putah Creek along SR 128 viewshed: 3 new noncultivation uses
- City of Sacramento skyline viewshed from I-5 and SR 113: 3 new noncultivation uses

No new cannabis uses are assumed to be placed near the designated wild and scenic portions of Cache Creek that could obstruct views of the creek (see Exhibit 3.1-6).

Relocated cultivation sites and new cannabis uses are assumed to result in the placement of buildings and fencing that may be visible from the scenic viewsheds. However, this development would not create new building massing or extensive fencing that would completely or substantially obstruct public views of these scenic viewsheds because of the limited acreage of permitted cannabis uses countywide, the controls of the proposed CLUO, dispersion of the new sites within these large viewsheds that range from 5 to 31 miles in length, and the agricultural character of cannabis uses, and comparatively small structure size anticipated to result. New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County.

All cannabis uses would be subject to CLUO standards that would ensure uses blend with existing conditions and visual character of the communities and overall County by requiring maintenance of the cannabis use site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

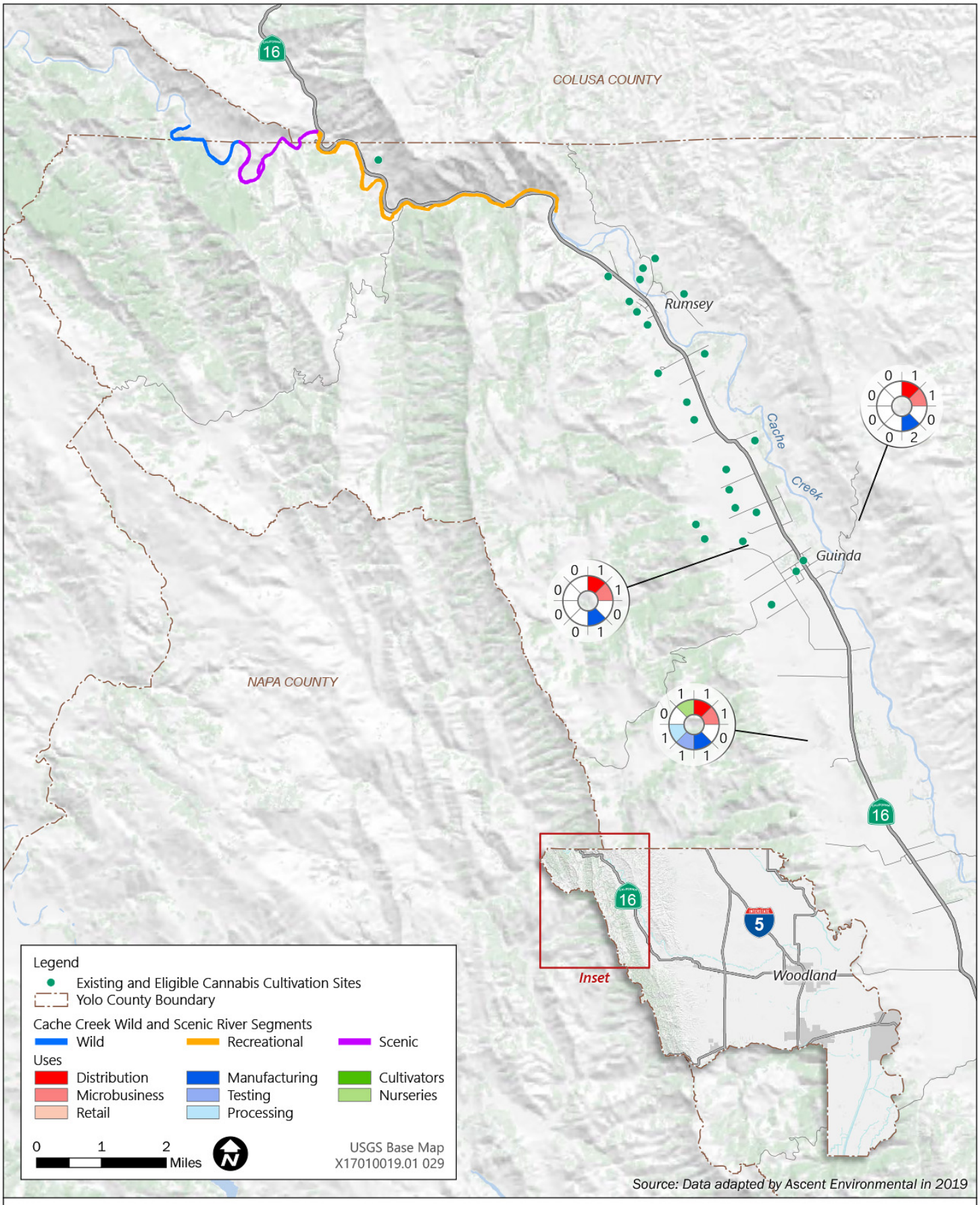
This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes new cannabis uses could be located in the following scenic viewsheds:

- I-5 along the Dunnigan Hills viewshed: 12 new cultivation and noncultivation uses
- SR 16 through the Capay Valley and Cache Creek viewshed: 29 new cultivation and noncultivation uses.
- Blue Ridge viewshed from the communities of Capay, Esparto, and Madison, and I-505: 17 new cultivation and noncultivation uses
- Putah Creek along SR 128 viewshed: 4 new cultivation and noncultivation uses
- City of Sacramento skyline viewshed from I-5 and SR 113: 16 new cultivation and noncultivation uses

No new cannabis uses are assumed to be placed near the designated wild and scenic portions of Cache Creek that could obstruct views of the creek (see Exhibit 3.1-7).



Source: Data adapted by Ascent Environmental in 2019

Exhibit 3.1-6 **Alternative 2 Cannabis Uses and State Wild and Scenic Rivers**

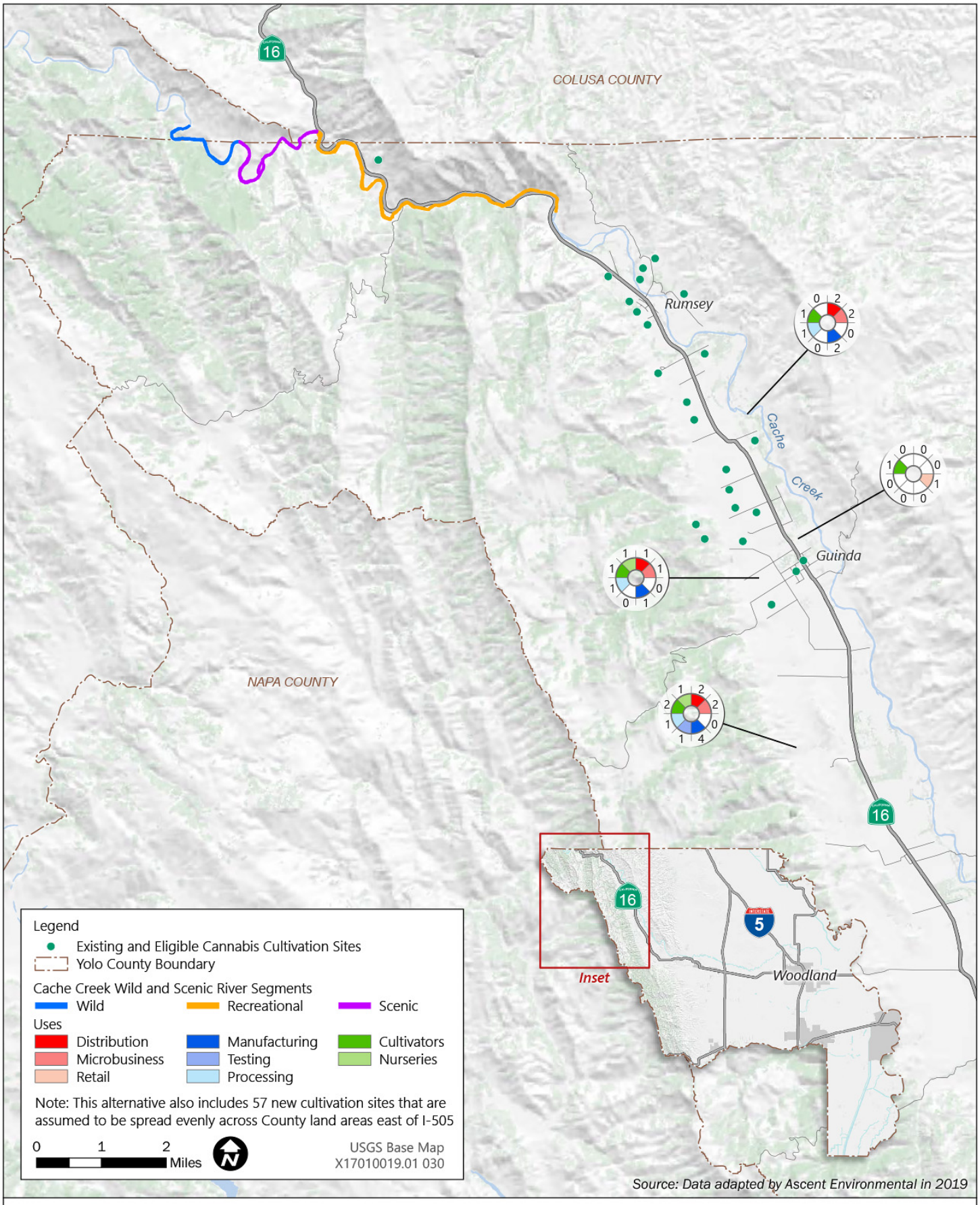


Exhibit 3.1-7 **Alternative 3 Cannabis Uses and State Wild and Scenic Rivers**

Relocated cultivation sites and new cannabis uses are assumed to result in the placement of buildings and fencing that may be visible from the scenic viewsheds. However, this development would not create new building massing or extensive fencing that would completely or substantially obstruct public views of these scenic viewsheds because of the limited acreage of allowed cannabis uses countywide, the controls of the proposed CLUO, dispersion of the new sites within these large viewsheds that range from 5 to 31 miles in length, and the agricultural character of cannabis uses, and comparatively small structure size anticipated to result. New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County.

All cannabis uses would be subject to CLUO standards that would ensure uses blend with existing conditions and visual character of the communities and overall County by requiring maintenance of the cannabis use site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 2-7, this alternative assumes new cannabis uses could be located in the following scenic viewsheds:

- I-5 along the Dunnigan Hills viewshed: 8 new cultivation and noncultivation uses
- SR 16 through the Capay Valley and Cache Creek viewshed: 13 new noncultivation uses.
- Blue Ridge viewshed from the communities of Capay, Esparto, and Madison, and I-505: 9 new noncultivation uses
- Putah Creek along SR 128 viewshed: 2 new cultivation and noncultivation uses
- City of Sacramento skyline viewshed from I-5 and SR 113: 3 new noncultivation uses

No new cannabis uses are assumed to be placed near the designated wild and scenic portions of Cache Creek that could obstruct views of the creek (see Exhibit 3.1-8). Under Alternative 4, the SR 16 corridor and Cache Creek viewshed would have the largest assumed conversion of outdoor cultivation operations to mixed-light or indoor cultivation and the construction of greenhouses or indoor buildings, which may be identified as a noticeable alteration in the viewshed from public views.

Relocated cultivation sites and new cannabis uses are assumed to result in the placement of buildings and fencing that may be visible from the scenic viewsheds. However, this development would not create new building massing or extensive fencing that would completely or substantially obstruct public views of these scenic viewsheds because of the limited acreage of permitted cannabis uses countywide, the controls of the proposed CLUO, dispersion of the new sites within these large viewsheds that ranges from 5 to 31 miles in length, and the agricultural character of cannabis uses, and comparatively small structure size anticipated to result. New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County.

All cannabis uses would be subject to CLUO standards that would ensure uses blend with existing conditions and visual character of the communities and overall County by requiring maintenance of the cannabis use site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 4.

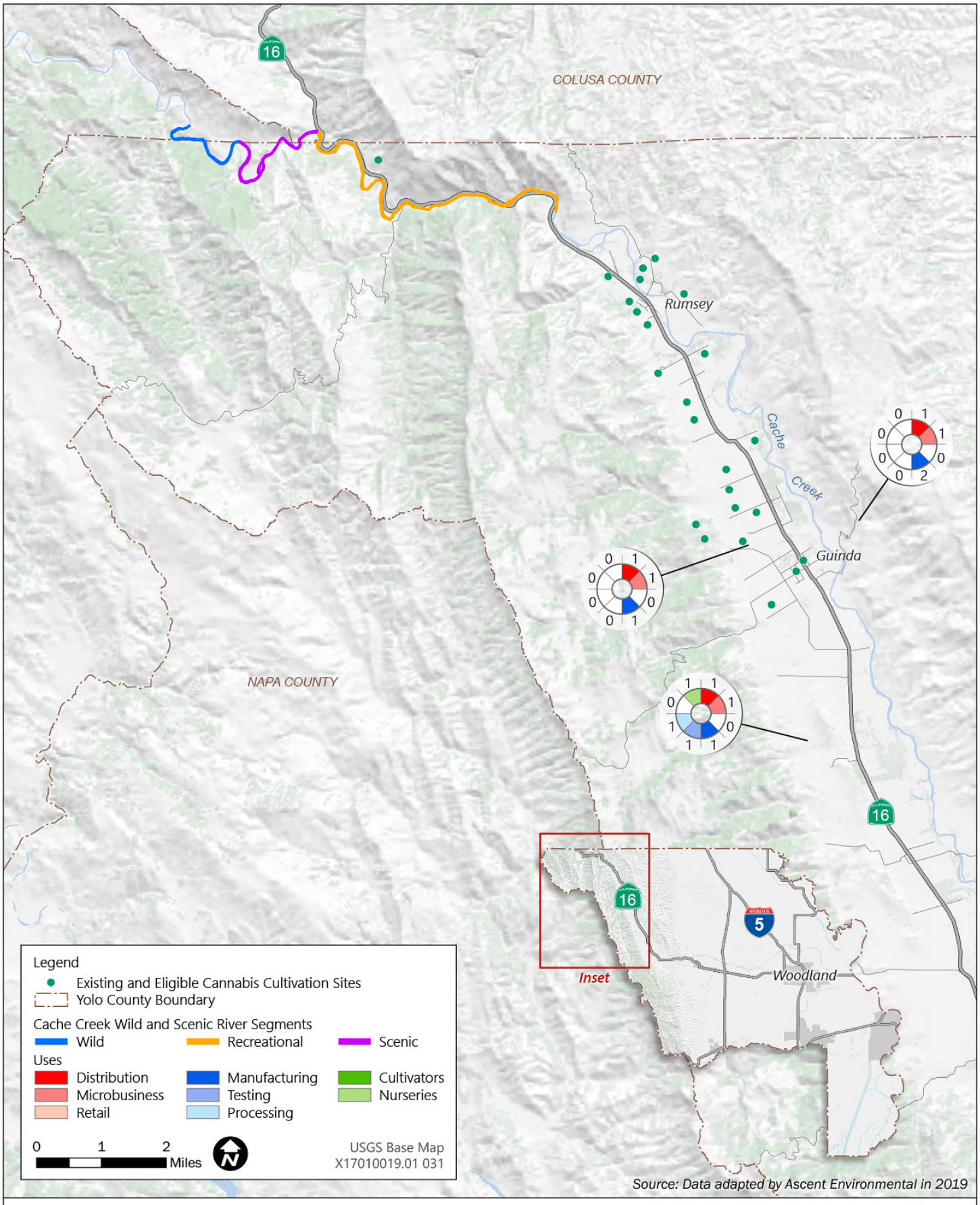


Exhibit 3.1-8 **Alternative 4 Cannabis Uses and State Wild and Scenic Rivers**

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
As shown in Exhibit 2-8, this alternative assumes new cannabis uses could be located in the following scenic viewsheds:

- I-5 along the Dunnigan Hills viewshed: 7 new noncultivation uses
- SR 16 through the Capay Valley and Cache Creek viewshed: 13 new noncultivation uses.
- Blue Ridge viewshed from the communities of Capay, Esparto, and Madison, and I-505: 7 new cultivation and noncultivation uses
- Putah Creek along SR 128 viewshed: 2 new cultivation and noncultivation uses
- City of Sacramento skyline viewshed from I-5 and SR 113: 2 new noncultivation uses

No new cannabis uses are assumed to be placed near the designated wild and scenic portions of Cache Creek that could obstruct views of the creek (see Exhibit 3.1-9).

Relocated cultivation sites and new cannabis uses are assumed to result in the placement of buildings and fencing that may be visible from the scenic viewsheds. However, this development would not create new building massing or extensive fencing that would completely or substantially obstruct public views of these scenic viewsheds because of the limited acreage of the permitted cannabis uses countywide, the controls of the proposed CLUO, dispersion of the new sites within these large viewsheds that range from 5 to 31 miles in length, and the agricultural character of cannabis uses, and comparatively small structure size anticipated to result. New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County.

All cannabis uses would be subject to CLUO standards that would ensure uses blend with existing conditions and visual character of the communities and overall County by requiring maintenance of the cannabis use site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

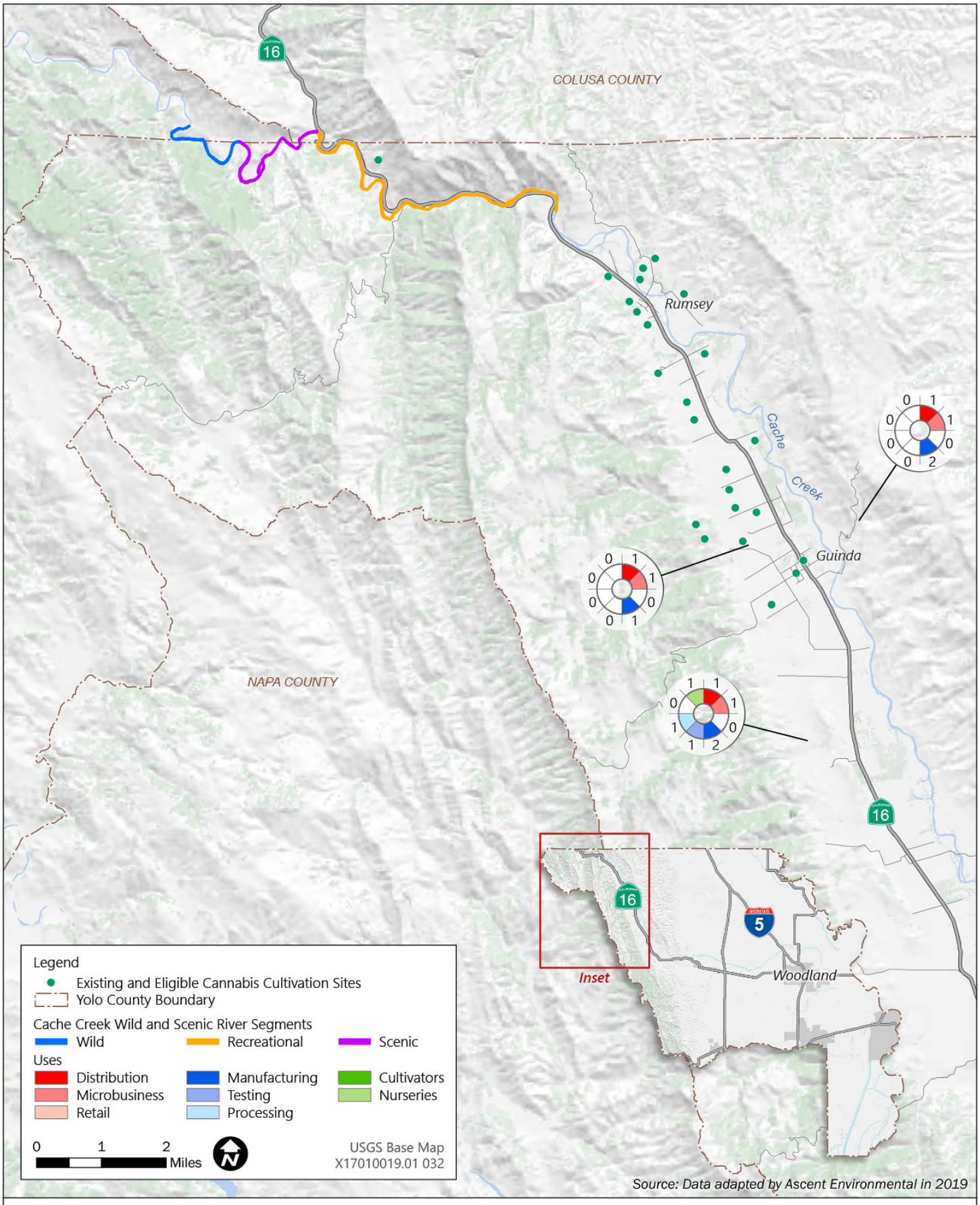


Exhibit 3.1-9 **Alternative 5 Cannabis Uses and State Wild and Scenic Rivers**

Impact AES-2: Damage Scenic Resources Including, But Not Limited to, Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway or County-Designated Scenic Roadway

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, may result in new cannabis uses that could damage scenic resources associated with designated scenic highways and roadways. Cannabis uses would be required to comply with CLUO requirements that set forth standards for site design and maintenance to ensure adverse effects to scenic resources are avoided. This impact would be **less than significant** for all alternatives.

The General Plan identifies the following local scenic roadways (Policy CC-1.13):

- SR 16 (Colusa County line to Capay),
- SR 128 (Winters to Napa County line),
- County Roads 116 and 116B (Knights Landing to eastern terminus of County Road 16),
- County Roads 16 and 117 and Old River Road (County Road 107 to West Sacramento), and
- South River Road (West Sacramento city limits to Sacramento County line).

SR 128 in Yolo County was recently added to the state highway scenic system that added the highway to Section 263.1 of the Streets and Highway Code. A portion of SR 16 is eligible for official designation. Development activities along these roadway corridors has the potential to adversely impact these scenic resources considered important in General Plan Policy CC-1.15 that include trees, natural resources and historic buildings.

The General Plan identifies the preservation and enhancement of the scenic quality of the County's rural roadway system (Policy CC-1.12), protection of trees, natural resources, and historic structures along designated scenic roadways (Policy CC-1.15), and regulation of features along designated scenic roadways (Policy CC-1.16). The General Plan also specifies that obtrusive activities and facilities such as infrastructure and utility facilities, storage yards, outdoor parking and display areas should be visually screened along highways, freeways, roads and trails (Policy CC-1.8). The CLUO incorporates these policy provisions to ensure implementation on cannabis projects under Sections 8-2.1408(B) (Agricultural Maintenance), 8-2.1408(F) (Building Design), Section 8-2.1408(H) (Cultural Resources), 8-2.1408(Y) (Landscaping), 8-2.1408(KK) (Screening), 8-2.1408(OO) (Site Design), 8-2.1408(PP) (Site Maintenance), 8-2.1408(RR) (Tree Protection), and Section 8.2-1412(C) (Cultivation Site Restoration). The reader is referred to Impact AES-1 for a full description of these CLUO requirements.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way including designated scenic roadways and highways. Given these CLUO requirements, no adverse effects are expected to the scenic resources associated with designated scenic roadways and highways.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Exhibit 3.1-10 identifies existing cannabis cultivation site locations under Alternative 1 in relation to designated scenic roadways and highways. One cultivation site along SR 16 is assumed to relocate to comply with CLUO zoning standards to a location nearby. All other existing and eligible sites along scenic roadways and highways would remain in place. No new cannabis uses are assumed to occur under this alternative.

Existing and relocated cultivation sites would be subject to CLUO standards that would improve their visual character and would require protection of General Plan identified scenic resources (Policy CC-1.15) along scenic roadways and highways by requiring maintenance of the cultivation site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), protection of historic resources (Section 8-2.1408[H]), screening of outdoor cultivation from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed cultivation sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 3.1-11, new cannabis uses are assumed to be located along SR 16 and SR 128.

All cannabis uses would be subject to CLUO standards that would require cannabis operations to protect General Plan identified scenic resources (Policy CC-1.15) along scenic roadways and highways by requiring maintenance of the site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), protection of historic resources (Section 8-2.1408[H]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 3.1-12, new cannabis uses are assumed to be located along SR 16, SR 128, County Road 16, County Road 116B, County Road 117, Old River Road, and South River Road.

All cannabis uses would be subject to CLUO standards that would require cannabis operations to protect General Plan identified scenic resources (Policy CC-1.15) along scenic roadways and highways by requiring maintenance of the site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), protection of historic resources (Section 8-2.1408[H]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 3.

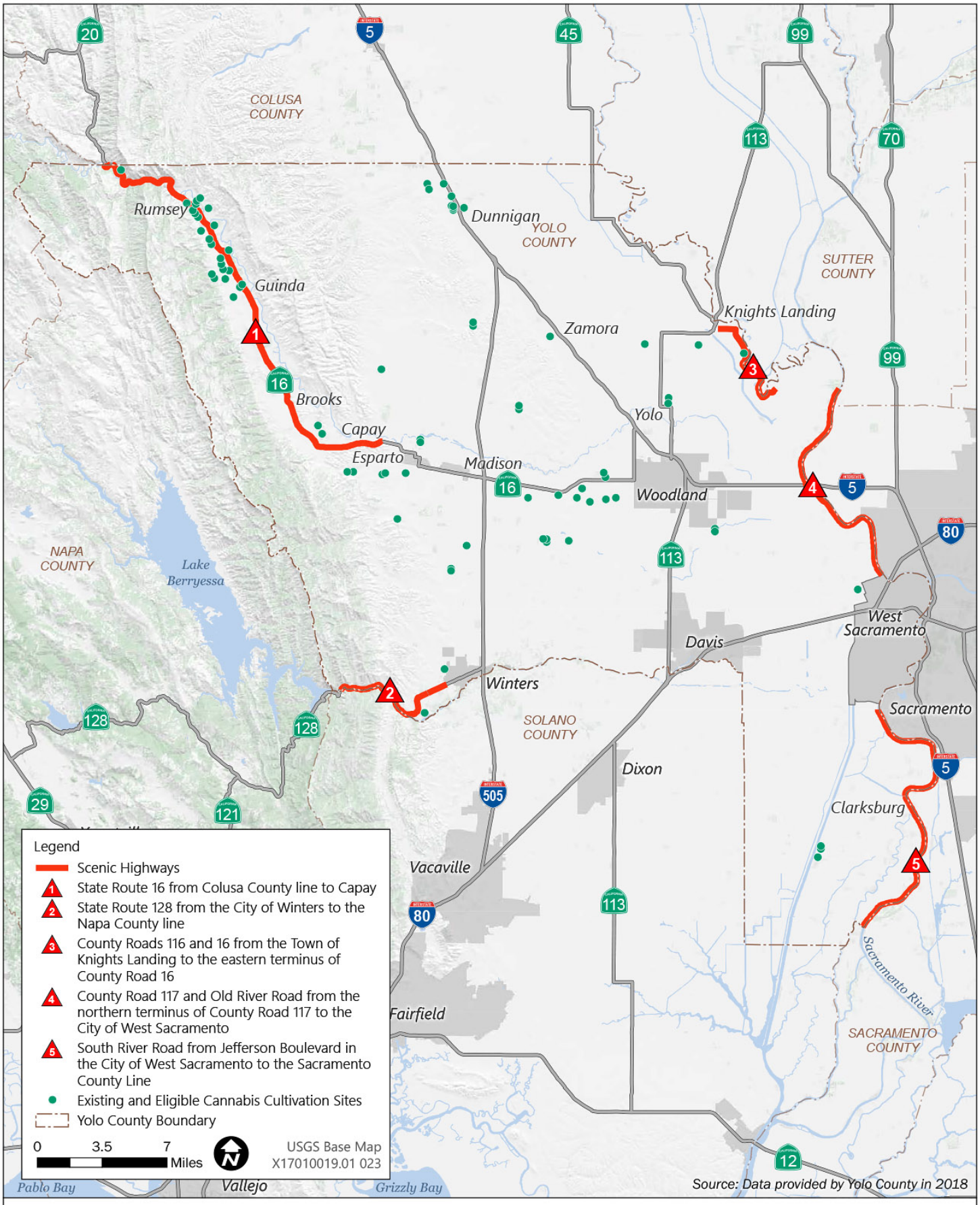


Exhibit 3.1-10 Alternative 1 Cannabis Uses and Designated Scenic Roadways and Highways

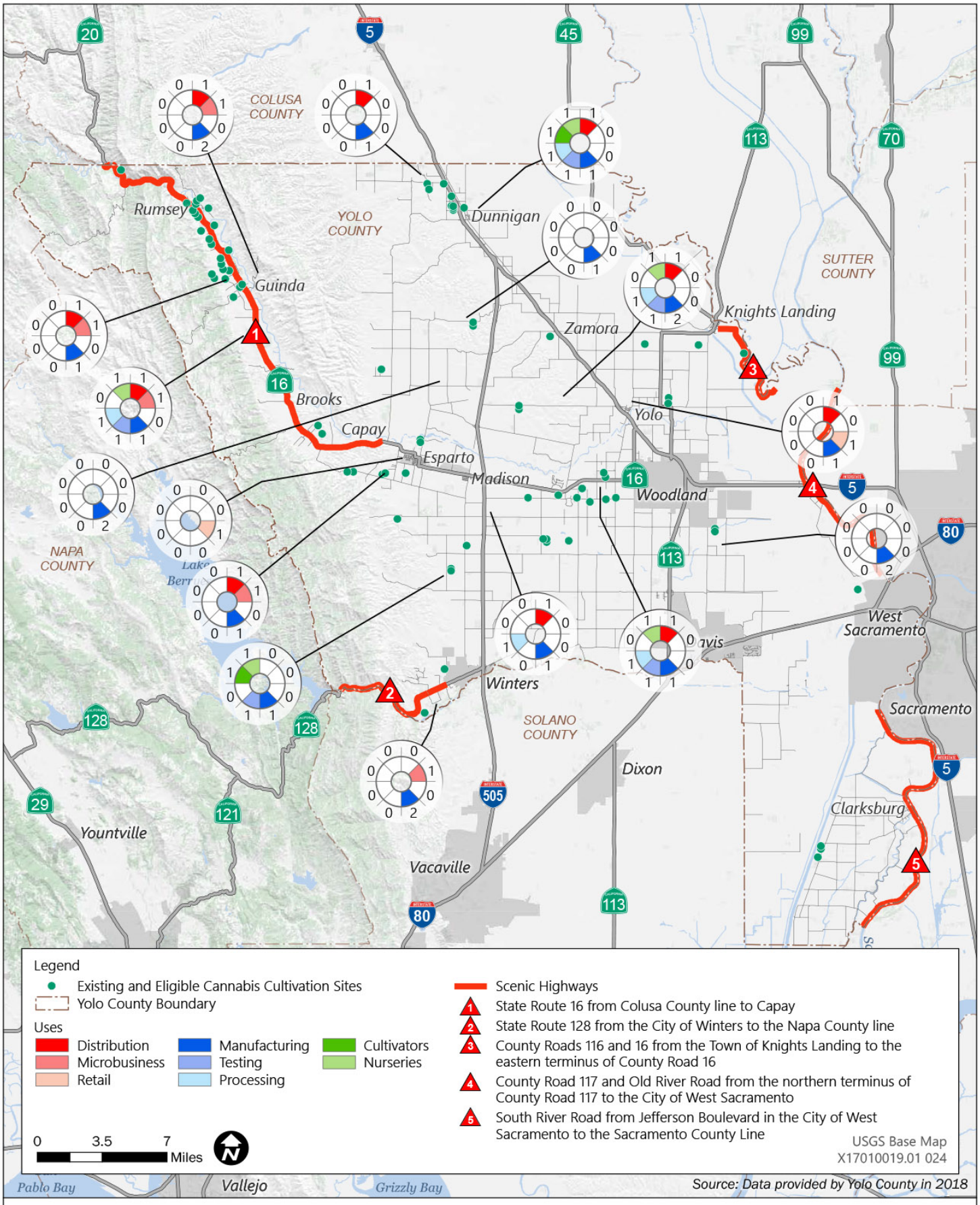


Exhibit 3.1-11 Alternative 2 Cannabis Uses and Designated Scenic Roadways and Highways

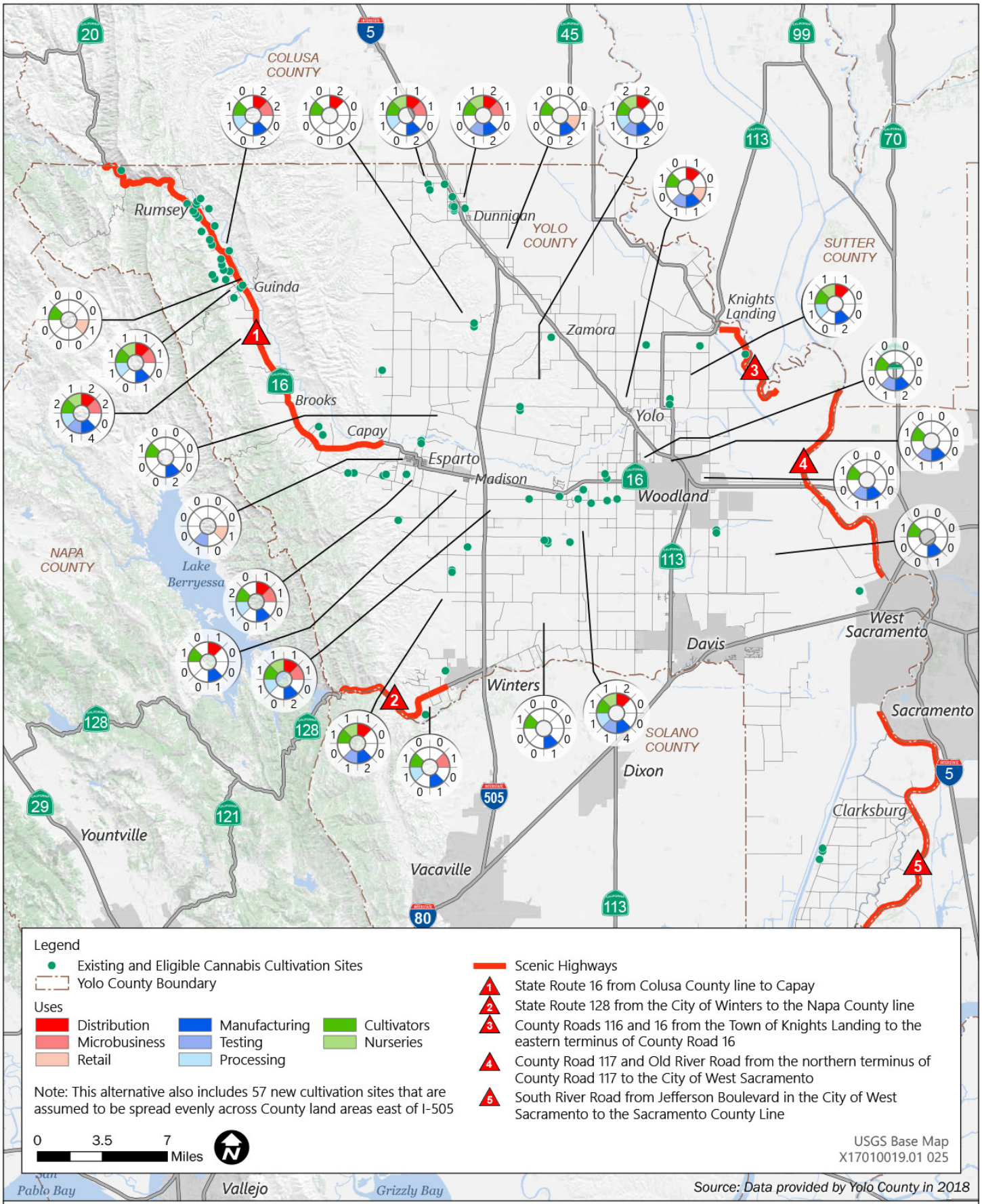


Exhibit 3.1-12 **Alternative 3 Cannabis Uses and Designated Scenic Roadways and Highways**

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types
As shown in Exhibit 3.1-13, new cannabis uses are assumed to be located along SR 16 and SR 128.

All cannabis uses would be subject to CLUO standards that would require cannabis operations to protect General Plan identified scenic resources (Policy CC-1.15) along scenic roadways and highways by requiring maintenance of the site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), protection of historic resources (Section 8-2.1408[H]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
As shown in Exhibit 3.1-14, new cannabis uses are assumed to be located along SR 16 and SR 128.

All cannabis uses would be subject to CLUO standards that would require cannabis operations to protect General Plan identified scenic resources (Policy CC-1.15) along scenic roadways and highways by requiring maintenance of the site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), protection of historic resources (Section 8-2.1408[H]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

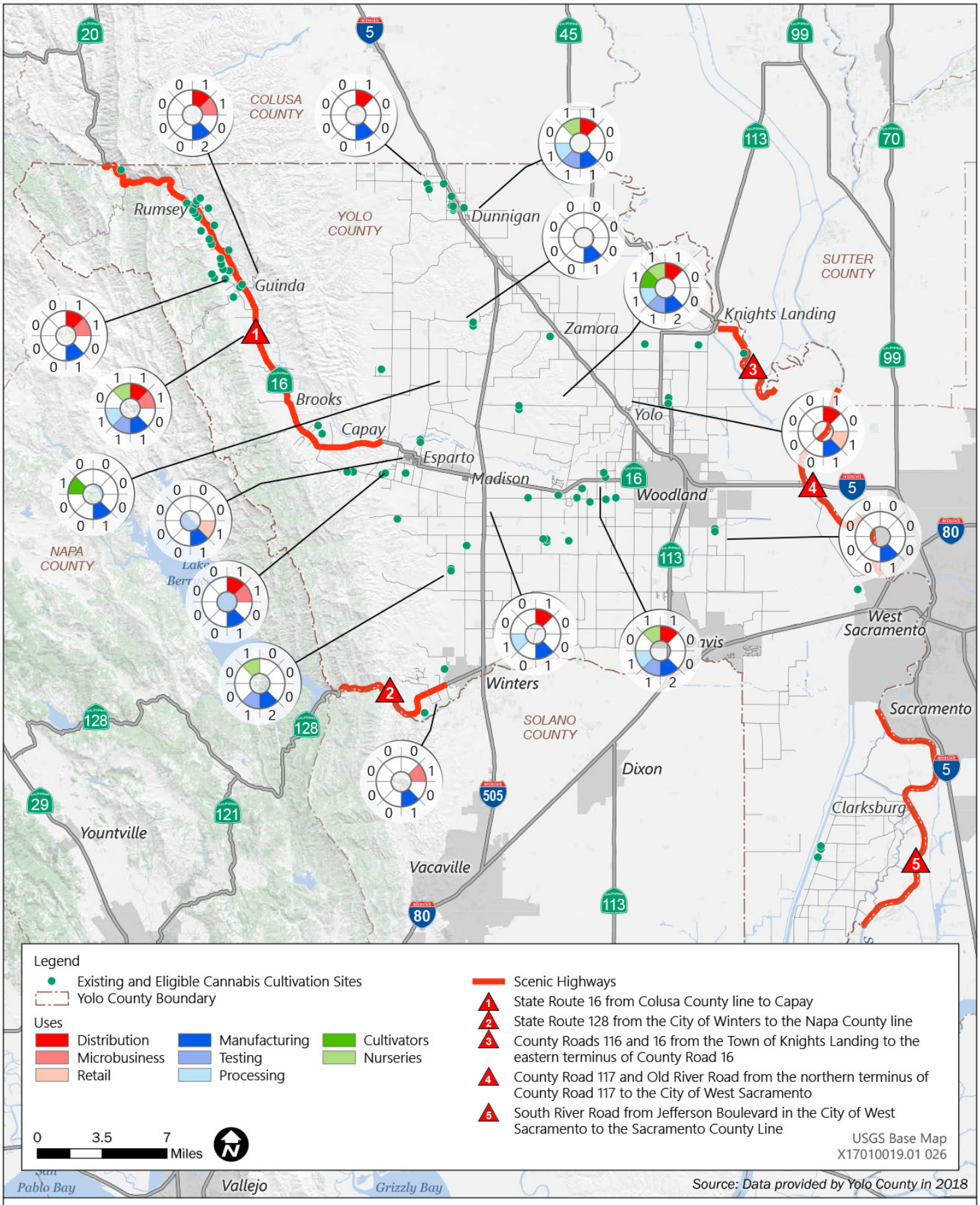
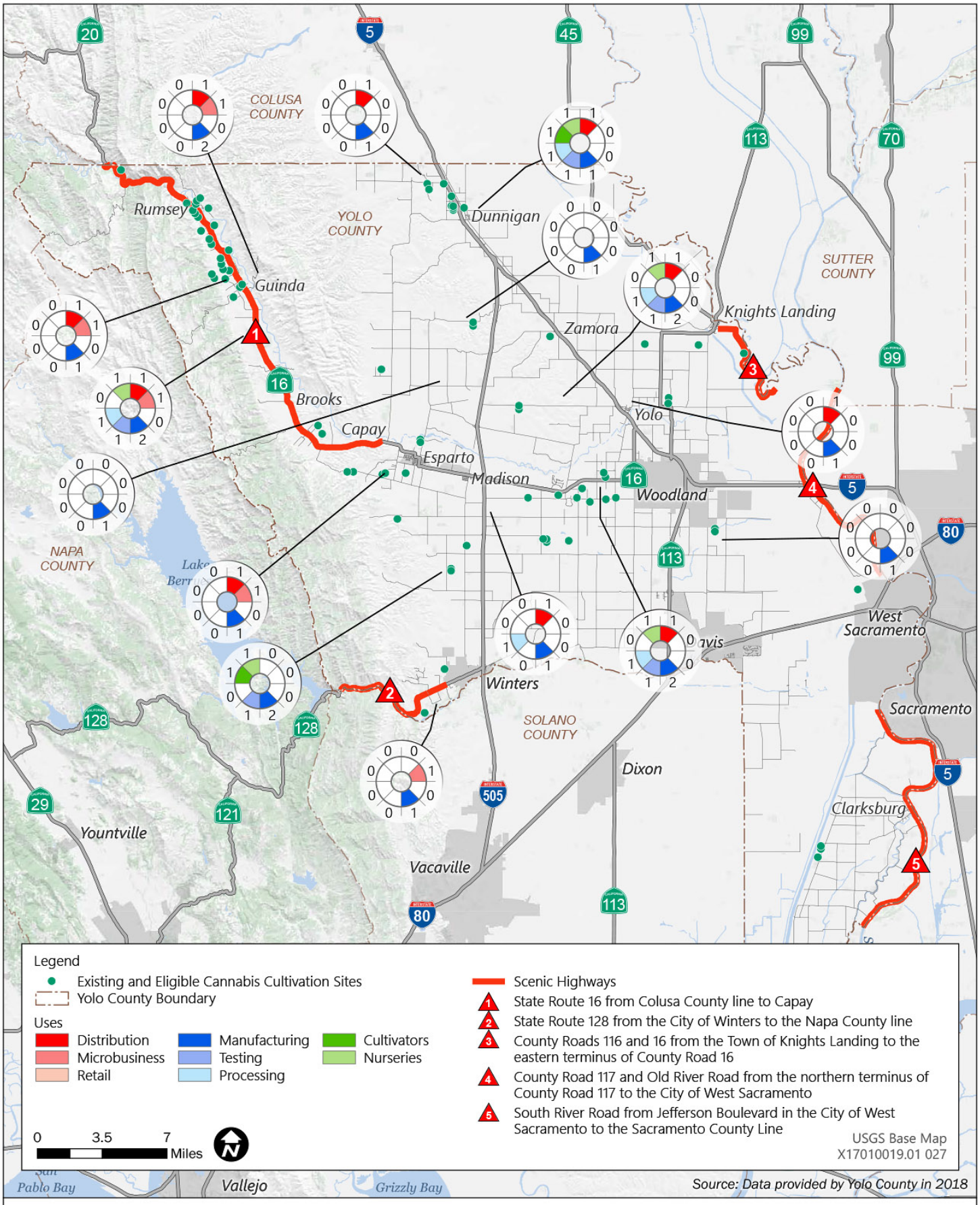


Exhibit 3.1-13 **Alternative 4 Cannabis Uses and Designated Scenic Roadways and Highways**



Source: Data provided by Yolo County in 2018

Exhibit 3.1-14 **Alternative 5 Cannabis Uses and Designated Scenic Roadways and Highways**

Impact AES-3: Substantially Degrade the Existing Visual Character or Quality of the Project Area

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, would allow for the development of new cannabis uses that would alter the rural and agricultural character of the County. The CLUO includes requirements that address aesthetics and visual character including requirements to address landscaping, site maintenance, and building design, among others. While these requirements would minimize the likelihood of nuisance impacts to the visual character and quality of the aesthetic environment, the potential adverse impacts to visual character remains. This impact would be **significant** for all alternatives.

As further discussed in Section 3.1.1, "Environmental Setting," the visual character of the County contains diverse features in each of its areas and communities. Overall the visual character includes natural habitat conditions and waterways, rural and agricultural land uses such as orchards, field crops, rangeland, supporting agricultural buildings (barns, buildings used for equipment storage and processing of agricultural product, offices, hoop houses, and shipping containers), and rural communities consisting of residential, commercial, office, and light industrial uses. Exhibits 3.1-1a through 3.1-1c provide an overview of the rural and agricultural visual character of the County. Commercial cannabis activities would introduce a new agricultural land use with characteristics that could adversely affect the rural and agricultural character of the County.

The General Plan identifies the rural landscape (Policy CC-1.2), natural features and historic buildings (Policy 1.5), ridgelines and hillsides (Policy CC-1.10), the general scenic quality of the rural roadway system (Policy CC-1.12), and designated local scenic roadways (Policy CC-1.13) including views and vistas from scenic roadways, as important features of the County. General Plan Policy CC-4.15 also calls for new development architecture to be sensitive and compatible with the site and the community. The County community plans also include policies and implementation measures that require land use activities to preserve and enhance the visual character and scenic features of the County through incorporation of site features that are a component of a scenic view, screening of visually incompatible site features, provision of landscaping and setbacks to blend the site, and maintaining character and scale of buildings of existing surrounding conditions. The CLUO incorporates these policy provisions to ensure implementation of design and site requirements on cannabis projects under Sections 8-2.1408(B) (Agricultural Maintenance), 8-2.1408(F) (Building Design), Section 8-2.1408(H) (Cultural Resources), 8-2.1408(Y) (Landscaping), 8-2.1408(KK) (Screening), 8-2.1408(OO) (Site Design), 8-2.1408(PP) (Site Maintenance), 8-2.1408(RR) (Tree Protection), and Section 8.2-1412(C) (Cultivation Site Restoration).

While cannabis cultivation uses overall are not substantively different from other allowed agricultural uses in terms of size and massing, there are visual characteristics unique to cannabis cultivation that are different aesthetically from agricultural and rural land uses. For example, cannabis cultivation activities are often organized on a small portion of a larger site, with the supporting buildings and greenhouses located close to each other, as differentiated from other County agricultural operations such as row crops, orchards and vineyards, and pastureland that more commonly use the entire parcel area for a range of operations and activities. Also, for security purposes, cannabis cultivation often includes solid fencing that obstructs views of the site, and may block open public views across agricultural fields from some vantage points. Other features that differ from existing agricultural operations include security features (e.g., gates, security personnel, and guard dogs) and in some cases, the lack of maintenance of the remaining land areas of the parcel that are not used as part of the cultivation operation.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1, but no expansion of cannabis cultivation uses would occur that could modify the visual character of the area.

As described in Section 3.1.1, "Environmental Setting," existing cannabis cultivation in the County is concentrated in Capay Valley and other areas (see Exhibit 2-4, and Chapter 4, "Cumulative Impact and Overconcentration"). On-site features include a range of primarily single-story structures that are also found with some other existing agricultural uses in the County, including ancillary nursery/greenhouses, temporary hoop houses, storage buildings for equipment and materials, processing buildings/containers, fencing, and housing (see Exhibits, 3.3-1c as compared to Exhibits 3.1-3a through 3.1-3d).

As shown in Exhibits 3.1-3a through 3.1-3d the visual character of cannabis cultivation sites may differ from the character of other agricultural operations in the County (Exhibits 3.1-1a and 3.3-1b). Cannabis cultivation sites are often distinguishable from other agricultural uses in the County because they tend to be more densely arranged. For example, a typical cannabis cultivation operation may have 2 acres of area within a larger parcel whereas orchards, vineyards, and row crops typically utilize the entire parcel. Cannabis operations also typically have different security measures, may have larger fallowed areas, and may use solid fencing to screening their cultivation sites.

Existing and relocated cultivation sites would be subject to CLUO standards that would require maintenance of the cultivation site and surrounding land area on the parcel (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cultivation from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed cultivation sites (Section 8-2.1412[C]). Implementation of these provisions would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, the potential for impact is conservatively considered **significant** under Alternative 1. The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of aesthetic impacts associated with cumulative and geographically concentrated conditions.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County.

Cannabis operations overall are not substantively different from other allowed agricultural uses in terms of size and massing. However, there are visual characteristics unique to cannabis cultivation and noncultivation uses that are different aesthetically. Cannabis cultivation uses tend to be more densely arranged, with the supporting buildings and greenhouses located close to each other as compared to other County agricultural operations such as row crops, orchards and vineyards, and pastureland that commonly use the entire parcel area. Cultivation and noncultivation sites often include solid fencing that may obstruct open public views across agricultural fields. Other features that differ from existing agricultural operations include security features (e.g., gates, security personnel, and guard dogs) and in some cases, the lack of maintenance of the remaining land areas of the parcel that are not used as part of the cannabis site operation.

As identified in Section 3.0, "Approach to the Environmental Analysis," and in Appendix D, the two new cultivation uses under this alternative are assumed to be vertically integrated with new cannabis noncultivation uses on a single parcel approximately 40 acres in size. Alternative 2 assumes that 47 new noncultivation sites would be located on agriculturally zoned land, while 5 sites are assumed to be located in commercial and industrial zoned areas contained in existing or new buildings and would not appear visually out of character with the existing commercial and industrial uses in these areas (see Appendix D). New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County. As described in Section 3.1.1, "Environmental Setting," existing County

agricultural areas include built features (buildings used for equipment storage and processing of agricultural product, offices, and shipping containers) such as those provided at Syngenta Seeds, Gambos Company, Grow West, and Golden Farm Products.

All cannabis uses would be subject to CLUO standards that would require maintenance of the site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cannabis uses from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR], and restoration of closed sites (Section 8-2.1412[C]).

Implementation of these provisions would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, the potential for impact is conservatively considered **significant** under Alternative 2. The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of aesthetic impacts associated with cumulative and geographically concentrated conditions.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes new cannabis uses would be generally spread throughout the County though 40 new cannabis uses are assumed to be sited along the SR 16 corridor west of the City of Woodland.

As discussed above under Alternative 2, new cannabis operations are assumed to be distinguishable from other agricultural uses in the County through their more densely compacted operations. Alternative 3 is assumed to result in 57 new cannabis cultivation sites that would locate in agricultural zoned lands east of I-505 and would likely be a noticeable change in the visual character for a larger portion of the County as compared to existing conditions.

As identified in Section 3.0, "Approach to the Environmental Analysis," and in Appendix D, 25 new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on single parcels approximately 40 acres in size. As discussed under Alternative 2, cannabis noncultivation may differ aesthetically as compared to existing agricultural uses. Alternative 3 assumes that 94 new noncultivation sites would be located on agriculturally zoned land, while 10 sites are assumed to be located in commercial and industrial zoned areas contained in existing or new buildings and would not appear visually out of character with the existing commercial and industrial uses in these areas. New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County. As described in Section 3.1.1, "Environmental Setting," existing County agricultural areas include built features (buildings used for equipment storage and processing of agricultural product, offices, and shipping containers) such as those provided at Syngenta Seeds, the Gambos Company, Grow West, and Golden Farm Products.

As described under Alternative 2, all cannabis uses would be subject to CLUO standards that would require maintenance of the site and surrounding land area. Implementation of these provisions would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, the potential for impact is conservatively considered **significant** under Alternative 3. The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of aesthetic impacts associated with cumulative and geographically concentrated conditions.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types
Exhibit 2-7 identifies the assumed distribution of new cannabis uses in the County.

Relocated cannabis cultivation sites and conversion of outdoor cultivation sites to mixed-light or indoor cultivation are assumed to be distinguishable from other agricultural uses in the County through the alteration of outdoor cultivation to the development of at least 75 new greenhouses or indoor buildings.

As identified in Section 3.0, "Approach to the Environmental Analysis," and in Appendix D, two new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on single parcels approximately 40 acres in size. As discussed under Alternative 2, cannabis noncultivation uses may differ aesthetically as compared to existing agricultural uses. It assumed that 47 new noncultivation sites would be located on agriculturally zoned land, while the 5 sites are assumed to be located in commercial and industrial zoned areas contained in existing or new buildings and would not appear visually out of character with the existing commercial and industrial uses in these areas (see Appendix D). New noncultivation cannabis buildings in the agricultural zones are assumed to be single-story, and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County. As described in Section 3.1.1, "Environmental Setting," existing County agricultural areas include built features (buildings used for equipment storage and processing of agricultural product, offices, seasonal hoop houses, and shipping containers) such as those provided at Syngenta Seeds, the Gambos Company, Grow West, and Golden Farm Products.

As described under Alternative 2, all cannabis uses would be subject to CLUO standards that would require maintenance of the site and surrounding land area. Implementation of these provisions would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, the potential for impact is conservatively considered **significant** under Alternative 4. The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of aesthetic impacts associated with cumulative and geographically concentrated conditions.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County.

As discussed under Alternative 2, cannabis uses are assumed to be distinguishable from other agricultural uses in the County through their more densely compacted operations that are different aesthetically than existing agricultural uses.

As identified in Section 3.0, "Approach to the Environmental Analysis," and in Appendix D, two new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on single parcels approximately 40 acres in size. This alternative assumes that all new cannabis uses are located on agriculturally zoned land. New noncultivation cannabis buildings are assumed to be single-story, and assumed to be of similar massing, size, and general use (1,000 to 140,000 square feet of building area) as existing agricultural buildings in the County. As described in Section 3.1.1, "Environmental Setting," existing County agricultural areas include built features (buildings used for equipment storage and processing of agricultural product, offices, and shipping containers) such as those provided at Syngenta Seeds, the Gambos Company, Grow West, and Golden Farm Products.

As described under Alternative 2, all cannabis uses would be subject to CLUO standards that would ensure uses blend with existing conditions and maintain the existing character by requiring maintenance of the site and surrounding land area. Implementation of these provisions would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, the potential for impact is conservatively considered **significant** under

Alternative 5. The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of aesthetic impacts associated with cumulative and geographically concentrated conditions.

Mitigation Measures

The proposed CLUO contains requirements, summarized herein, that would regulate the overall visual quality of cannabis operations including the appearance of buildings and structures, and general maintenance of the sites. There are no other known feasible measures for reducing aesthetic impacts that are not already include in the CLUO and/or in the five alternatives under consideration.

Notwithstanding implementation of these measures and other identified existing and proposed regulations, the potential for aesthetics impacts to occur is conservatively identified as significant and unavoidable because aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County.

Therefore, this impact is conservatively considered **significant and unavoidable** for all alternatives.

Impact AES -4: Create a New Source of Substantial Light or Glare That Would Adversely Affect Day or Nighttime Views

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, would allow for the development of new cannabis uses that would include the potential for glare and nighttime light that could adversely impact adjoining land areas. Implementation of CLUO requirements would ensure that light and glare sources from cannabis uses are controlled. This impact would be **less than significant** for all alternatives.

As further discussed in Section 3.1.1, "Environmental Setting," night lighting and glare in the County mostly occur within and around developed communities, although individual areas supporting agriculture and other industries also produce some nighttime lighting. Day time glare occurs on a site or use-specific, building by building basis, and there are no general trends related to glare in the County. Cannabis uses could create new lighting and glare sources that have the potential to result in adverse effects to views from adjoining land uses.

The General Plan Policy CC-4.12, Esparto Community Plan Policy E-LU.12, Clarksburg Area Community Plan Policy L13, and the Dunning Community Plan Policy D-D44 require the control of light sources to protect adjoining land uses and the night sky. The CLUO incorporates these policy provisions to ensure implementation of specific requirements on cannabis projects under the following sections:

- Section 8-2.1408(F) Building Design: Design and construction of buildings and structures shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, environmental controls (including temperature, humidity, and ventilation), safety and security, lighting, aesthetics, energy use, and other appropriate impact mitigation. Design, materials, and general appearance must be compatible with the character and scale of what is allowed in the applicable zone.

- Section 8-2.1408(X) Hoop Houses: Hoop houses shall be used as temporary structures and shall be removed after the growing season. No utilities or power, including portable equipment, shall be allowed in hoop houses. No artificial lighting, battery powered or otherwise shall be allowed. Hoop houses may not be used for processing. Hoop houses must be properly maintained.

- Section 8-2.1408(Z) Lighting: All exterior lighting shall be operational, full cut-off, shielded, and downward facing. Lighting shall not spill over onto other properties, structures, or the night sky. Lighting inside indoor and mixed light operations shall be fully controlled so that minimal or no light escapes. Lighting is prohibited in hoop houses. CDFA licensees must comply with Section 8304(c) of the CDFA Regulations. All lighting for indoor/enclosed spaces shall utilize LED bulbs, or equivalent or more

efficient technology. Mixed light use types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare, pursuant to Section 8304(g) of the CDFA Regulations.

- Section 8-2.1408(OO) Site Design: Site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (biological, cultural, trees, etc.) and other appropriate impact mitigation. All required permits shall be obtained. Operations shall comply with Sections 8-2.1002, Area of Lots, and 8-2.1004, Height Regulations, of the County Zoning Regulations as applicable.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way and would be subject to the CLUO lighting standards (Section 8-2.1408[Z]). Given these CLUO requirements, no lighting or glare impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1. No expansion of cannabis cultivation uses that would increase the existing extent of lighting and glare that already exist under existing conditions is expected to occur.

Existing and relocated cultivation sites would be subject to CLUO standards that would reduce existing lighting and glare conditions by ensuring that building and site design address potential glare impacts (e.g., use of nonreflective building materials) (Sections 8-2.1408[F] and [OO]), prohibition of lighting in hoop houses (Section 8-2.1408[X]), and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts (Section 8-2.1408[Z]). The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of aesthetic impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

This alternative assumes 54 new cannabis uses that would include buildings with exterior and interior lighting if they consist of mixed-light or indoor cultivation operations. There is also potential for day-time glare due to the use of reflective building materials such as clear plastic used in greenhouse buildings.

Cannabis uses would be subject to CLUO standards that require building and site design address potential glare impacts (e.g., use of nonreflective building materials) (Sections 8-2.1408[F] and [OO]), prohibition of lighting in hoop houses (Section 8-2.1408[X]), and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts (Section 8-2.1408[Z]). Implementation of these provisions would ensure that individual cannabis site lighting and glare impacts are mitigated. The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of aesthetic impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 is assumed to result in 57 new cannabis cultivation sites that would be located in agricultural zoned lands east of I-505. Of these new cultivation sites 12 are assumed to be mixed-light or indoor cultivation operations that would use lights within greenhouse buildings. This alternative would also include 104 noncultivation uses that could include buildings with exterior and interior lighting. There is

also potential for day-time glare due to the use of reflective building materials such as clear plastic used in greenhouse buildings.

As described under Alternative 2, cannabis uses would be subject to CLUO standards that would require building and site design to address potential glare impacts and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts. Implementation of these provisions would ensure that individual cannabis site lighting and glare impacts are mitigated. The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of aesthetic impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Relocated cannabis cultivation sites, new noncultivation cannabis uses, and conversion of outdoor cultivation sites to mixed-light or indoor cultivation are assumed to be distinguishable from other agricultural uses in the County through the alteration of cultivation in the ground to the development of at least 75 new greenhouse buildings that would include the use of exterior lighting and interior lighting for cultivation activities in the greenhouse or indoor buildings. New noncultivation cannabis sites that could include buildings with exterior and interior lighting. There is also potential for day-time glare due to the use of reflective building materials such as clear plastic used in greenhouse buildings.

As described under Alternative 2, cannabis uses would be subject to CLUO standards that would require building and site design address potential glare impacts and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts. Implementation of these provisions would ensure that individual cannabis site lighting and glare impacts are mitigated. The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of aesthetic impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

This alternative assumes 52 new cannabis uses that would include buildings with exterior and interior lighting if they consist of mixed-light or indoor cultivation operations. There is also potential for day-time glare due to the use of reflective building materials such as clear plastic used in greenhouse buildings. There is also potential for day-time glare due to the use of reflective building materials such as clear plastic used in greenhouse buildings.

As described under Alternative 2, cannabis uses would be subject to CLUO standards that would require building and site design to address potential glare impacts and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts. Implementation of these provisions would ensure that individual cannabis site lighting and glare impacts are mitigated. The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of aesthetic impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

3.2 AGRICULTURAL RESOURCES

This section evaluates the impacts of adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO on agricultural resources in Yolo County. The following analysis considers the extent and character of existing agricultural uses in the County and the potential impacts of new cannabis uses. The analysis is based on field review, the Yolo County 2030 Countywide General Plan and EIR, and recent reports regarding agricultural operations in the County.

Several agriculture-related comments were received in response to the NOP. These commenters included the South Davis Citizens Advisory Committee, the Yocha Dehe Wintun Nation, concerned residents, and the Yolo County Farm Bureau. These comments are summarized below:

- The proposed General Plan policy amendments do not completely avoid the potential for agricultural subdivisions.
- Concerns regarding the creation of unused agricultural lands on parcels used for cannabis cultivation.
- The impact of cannabis on agricultural lands, particularly on prime farmland, and the production of other crops in the County.
- The use of pesticides and other products that could impact the environment.
- Cannabis greenhouses should be sited in an industrial facility and not on farmland.
- Cannabis should not be considered an agricultural product.
- The analysis should identify measures that avoid impairment of neighboring crop production from cannabis uses.

These issues are considered in this section. The reader is referred to Appendix A for comments received on the NOP.

3.2.1 Environmental Setting

AGRICULTURAL RESOURCES

A defining characteristic of Yolo County is agriculture, which comprises over 80 percent of the land in the County. The Yolo County 2030 Countywide General Plan designates approximately 545,000 acres (of over 653,000 total acres) of land in Yolo County for agricultural uses (Yolo County 2009). Agriculture in Yolo County is varied and includes farms of all sizes, as well as equestrian, ranching, and other related agricultural activities. Additional detail on the extent and type of agricultural resources in the County is provided below.

Soils

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) classifies farmland according to soil type and the availability of irrigation. The NRCS Land Capability Classification (LCC) system is based on the limitations of soils for irrigated field crops, the risk of damage if soils are used for crops, and the way soils respond to management. The LCC system places soils into eight classes (I–VIII), depending on the limitations to agricultural use imposed by 13 specific soil and climatic criteria. The higher the class, the more restrictive the limitation. Classes I through IV are generally considered lands suitable for cultivation. The classes are defined as follows:

- Class I soils have slight limitations that restrict their use.
- Class II soils have moderate limitations that restrict the crop selection or that require moderate conservation practices.
- Class III soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
- Class IV soils have very severe limitation that restrict the choice of plants or that require very careful management, or both.
- Class V soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, and/or wildlife habitat. There are no Class V soils in Yolo County.
- Class VI soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class VII soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, and/or wildlife habitat.
- Class VIII soils include in this class are tidal lands, swamps, river wash, sand dunes and barren mountain tops. These lands should be used only for recreation, wildlife, water supply or aesthetic purposes.

Acreages of each NRCS LCC in Yolo County are presented in Table 3.2-1.

Table 3.2-1 Yolo County Agricultural Soils (NRCS Land Capability Classification System)

Soil Class	Acres	Percent of Total County Lands
Class I	107,835	16.5
Class II	182,994	28.0
Class III	67,316	10.3
Class IV	109,143	16.7
Class V	0	0
Class VI	73,197	11.2
Class VII	66,662	10.2
Class VIII	37,906	5.8
Water	8,496	1.3
Total	**653,549[1]**	**100**

Notes: Assumes irrigation where irrigation data were not available, the nonirrigated classification was included.

1. Adjusted slightly to match current County GIS data.

Source: Yolo County 2009

Important Farmland

The California Department of Conservation (DOC) classifies farmlands based on a system that combines technical soil ratings and current land use, as part of the Farmland Mapping and Monitoring Program (FMMP). Descriptions of the FMMP categories are presented in Table 3.2-2. The categories of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are defined by CEQA as "Important Farmland." Table 3.2-3 and Exhibit 3.2-1 identify the extent of farmlands in the County.

Table 3.2-2 Farmland Mapping and Monitoring Program Mapping Categories

Category	Considered Important Farmland under CEQA[1]	Definition
Prime Farmland (P)	Yes	Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years before the mapping date.
Farmland of Statewide Importance (S)	Yes	Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years before the mapping date.
Unique Farmland (U)	Yes	Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the 4 years before the mapping date.
Farmland of Local Importance (L)	No	Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
Farmland of Local Potential	No	Farmland of Local Potential is a designation given to land that is of prime or statewide importance but is not presently irrigated or cultivated.
Grazing Land (G)	No	Land on which the existing vegetation is suited to the grazing of livestock.
Urban and Built-Up Land (D)	No	Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
Other Land (X)	No	Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
Water (W)	No	Perennial water bodies with an extent of at least 40 acres.

1. Important farmland is defined by CEQA under Public Resources Code Section 21060.01 and State CEQA Guidelines Appendix G.

Table 3.2-3 Important Farmland Acreages in Yolo County (2016)

Farmland Type	Acres	Percent of Total County Lands
Prime Farmland	**250,558**	**38**
Farmland of Statewide Importance	**19,527**	**3**
Unique Farmland	**46,095**	**7**
Farmland of Local Importance	22,386	3
Farmland of Local Potential	27,284	4
Grazing Land	166,413	26
Urban and Built-Up Land	31,347	5
Other Land	82,035	13
Water	7,804	1
TOTAL	**653,449[1]**	**100**

Source: DOC 2016

1. Acreages from DOC are round and differ from County GIS data.

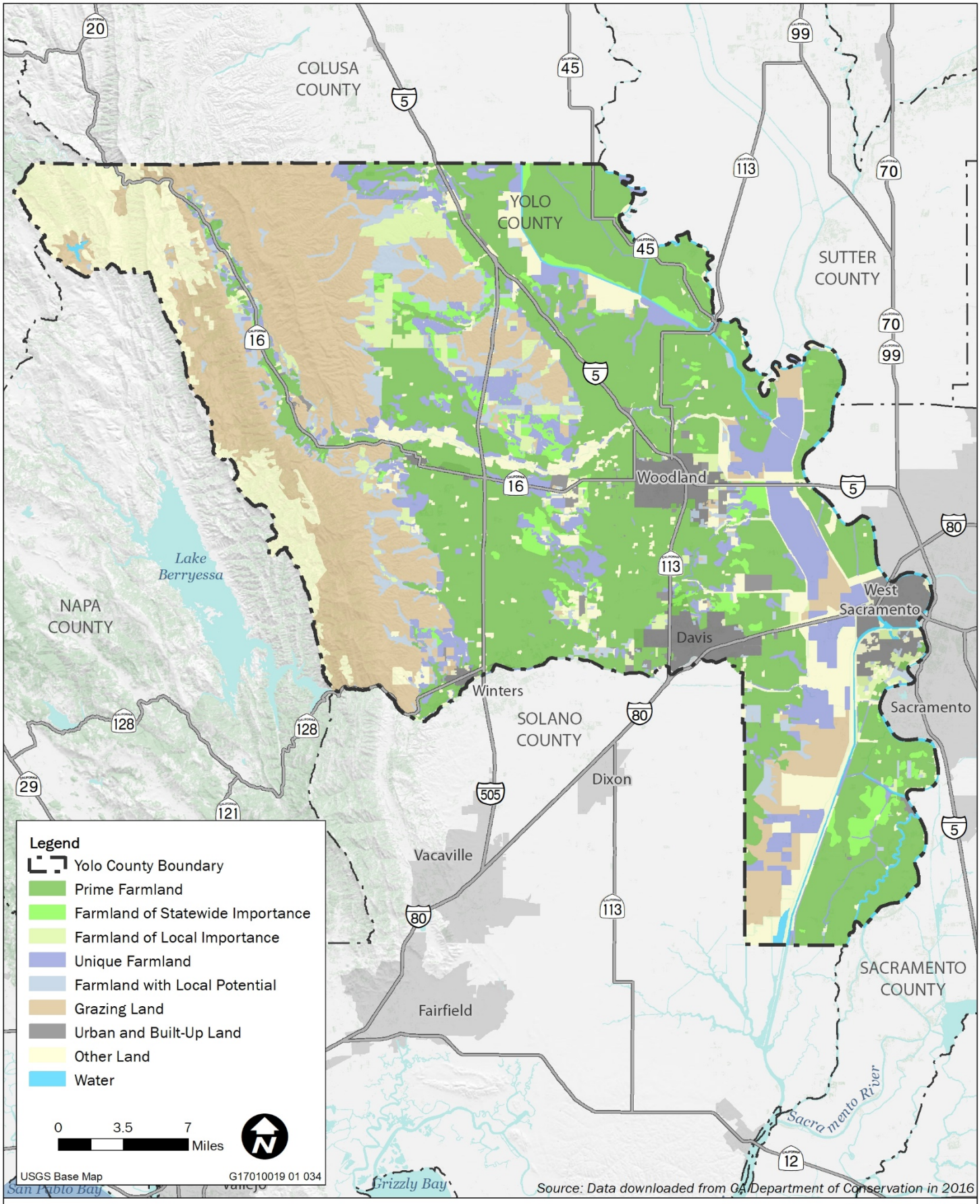


Exhibit 3.2-1 **Yolo County Agricultural Land Use**

Crops

Tables 3.2-4 and 3.2-5 provide a summary of 2017 agricultural production of the County based on the Yolo County 2017 Agricultural Crop Report. The County did not track cannabis production in this report.

Table 3.2-4 Agricultural Production and Acreages in 2017

Crop Type	Acres
Vegetable Crops	
Tomatoes, Processing	28,700
Miscellaneous	7,080
Organic	
Production, Organic (this includes organic rangeland)	34,400
Fresh Market Organic	7,080
Nursery Products	
Propagative Stock (includes bareroot, benchgraft, budwood, and cuttings)	416
Nursery Stock (includes container stock, organic transplants, transplants, and trees)	85
Wine Grapes	
Red Wine Grapes	5,340
White Wine Grapes	9,460
Field Crops	
Corn	5,440
Hay, Alfalfa	26,000
Hay, Grain	11,200
Pasture, Irrigated	12,100
Pasture, Dry	7,600
Rice	28,600
Safflower	6,610
Wheat	20,100
Miscellaneous	8,420
Seed Crops	
Certified Seed - Small Grain	2,550
Certified Seed - Sunflower	23,900
Certified Seed - Miscellaneous	3,910
Non-Certified – Pasture and Grass	985
Non-Certified – Vine Seed	1,130
Non-Certified - Miscellaneous	1,920
Orchard Crops	
Almonds (Meats)	40,400
Almonds (Hulls)	30,000
Olives (Oil)	4,250
Plums, Dried	1,660
Walnuts, All	19,200
Miscellaneous	5,760

Table 3.2-4 Agricultural Production and Acreages in 2017

Crop Type	Acres
Organic Crops	411
Grain/Hay Crops	65,303
Cultivated Lands (rice)	35,724
Pasture	15,197

Source: Yolo County Agricultural Commissioner 2018

Table 3.2-5 Yolo County Crop Values (2016 and 2017)

	Crop Type								
Value	Field	Seed	Vegetable	Fruit and Nut	Wine Grapes	Organic Production	Nursery Products	Livestock and Poultry	Apiary, Livestock and Poultry Products
2017									
Total Value	$88,853,000	$59,991,000	$106,843,000	$192,564,000	$86,012,000	$49,989,000	$19,068,000	$18,944,000	$12,982,000
2016									
Total Value	$99,131,000	$66,429,000	$152,518,000	$156,395,000	$81,264,000	$58,863,000	$18,303,000	$19,026,000	$10,463,000

Source: Yolo County Agricultural Commissioner 2018

As shown in Table 3.2-6, the top three agricultural commodities, by dollar value, produced in Yolo County in 2017 were almonds, tomatoes, and wine grapes. These top three commodities accounted for approximately 45 percent of the County's total gross valuation ($635,246,000) for all agricultural commodities produced in 2017 (Yolo County Agricultural Commissioner 2018).

Table 3.2-6 Yolo County's Top 10 Commodities (2017)

Commodity	Value
Almonds (Meats)	$115,020,000
Tomatoes, Processing	$86,800,000
Grapes, Wine (All)	$86,012,000
Organic Production (All)	$49,989,000
Walnuts (All)	$44,457,000
Rice	$39,585,000
Sunflower Seed	$32,437,000
Hay, Alfalfa	$21,359,000
Nursery (All)	$19,068,000
Cattle and Calves	$15,707,000

Source: Yolo County Agricultural Commissioner 2018

3.2.2 Regulatory Setting

FEDERAL

Federal Insecticide, Fungicide, and Rodenticide Act

Pesticides are regulated under the Federal Insecticide, Fungicide, and Rodenticide Act by the U.S. Environmental Protection Agency (EPA). This includes labeling and registration of pesticides as to how they may be used. EPA delegates pesticide enforcement activities in California to the California Department of Pesticide Regulation (CDPR), under Title 3 of the CCR and the California Food and Agriculture Code. CDPR registers pesticides for use in California, and licenses pesticide applicators and pilots, advisors, dealers, brokers, and businesses.

STATE

Farmland Mapping and Monitoring Program

DOC has the primary responsibility for reporting statewide farmland data and trends. As described previously, the DOC's FMMP categorizes and maps Important Farmlands every 2 years based on information from local agencies. Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are the most suitable for agriculture and are often referred to collectively, as stated above, as "Important Farmland." In addition, counties may, at their discretion, establish criteria for the designation of Farmland of Local Importance, and consider other lands within their jurisdiction as important agricultural lands.

California Land Conservation Act of 1965

The California Land Conservation Act of 1965, or Williamson Act, established the state's primary program for the retention of private land in agriculture and open space use. The act creates an arrangement whereby private landowners enter into a 10-year contract with counties and cities to maintain their land in agricultural and compatible open-space uses in exchange for a reduction in property taxes. The contract is automatically renewed for an additional year unless it is cancelled. The contract may be cancelled by the landowner if the land is being converted to an incompatible use via a notice of nonrenewal (discussed below) or an outright cancelation, which includes tax penalties. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

In August 1998, the California State Legislature expanded the Williamson Act by amending it to provide for the establishment of "Farmland Security Zones." The Farmland Security Zone (FSZ) legislation authorizes landowners to petition the Yolo County Board of Supervisors (Board) to rescind their existing Williamson Act contract in favor of a new FSZ contract. The landowner must have an existing Williamson Act contract before the Board can approve an FSZ contract. For land not currently in a Williamson Act contract, the Board may allow enrollment of the land into a Williamson Act contract, then authorize the immediate rescission of those contracts in favor of FSZ contracts.

In 2008, AB 2921 was enacted, providing for a mechanism to rescind Williamson Act agricultural contracts to enter into either an open space contract under the Williamson Act, or an open space easement. Under the new provisions, the resulting agreement must be at least as restrictive as the contract it replaced, and the affected parcel large enough to provide open space benefits.

The Williamson Act was further amended by AB 1265 in July 2011. This legislation reduced the term of Williamson Act contracts from 10 years to 9 years, accompanied by an addition to the assessed value of affected properties. Under the changes, land under the Williamson Act must remain in the specified use for 9 years following filing of a notice of nonrenewal, unless the contract is cancelled and subject to substantial tax penalties.

In 2013 (the most recent year of reported data) there were 312,984 acres of land under Williamson Act contracts in Yolo County (DOC 2016b).

California Public Resources Code

California Public Resources Code Section 21060.1 contains the following definition of agricultural land:

a) "Agricultural land" means prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.

b) In those areas of the state where lands have not been surveyed for the classifications specified in subdivision (a), "agricultural land" means land that meets the requirements of "prime agricultural land" as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.

Cannabis As an Agricultural Product

California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) define medical and adult-use cannabis as agricultural products.

California Department of Pesticide Regulation Guidance

Detailed implementing regulations for the California Department of Pesticide Regulation (DPR) pesticide regulatory program are codified in 3 CCR Division 6. DPR oversees state pesticide laws, including pesticide labeling, and is vested by EPA to enforce federal pesticide laws in California. DPR also oversees the activities of the County agricultural commissioners related to enforcement of pesticide regulations and related environmental laws and regulations locally. These regulations include permitting requirements and limitations on the use of "restricted" pesticides (pesticides considered to be dangerous to human health or the environment if not used correctly) and non-restricted pesticides that may require permitting or must be handled consistent with the pesticide's specifications.

State law allows DPR to place controls on restricted pesticides, limiting their use to trained individuals and then only at times and places approved by the county agricultural commissioners.

DPR assesses potential dietary (food and drinking water), workplace, residential, and ambient air exposures, and considers both the exposure pathway (the course a pesticide takes from its source to the person) as well as the exposure route (how the pesticide enters the body). This evaluation is described in the Exposure Assessment Document (EAD).

DPR's human health risk assessments include hazard identification, dose-response assessment, exposure assessment, and risk characterization. These components of risk assessment are then incorporated into a risk characterization document (RCD). Hazard identification determines if there are toxic effects caused by a pesticide. The dose-response assessment identifies the amount of pesticide at which these effects occur. The exposure assessment determines the amount of pesticide that people are exposed to during a specific period (short-, intermediate-, and long-term) and in what situations (work, home, and outdoor environments). The exposure assessment also identifies who is most vulnerable, such as farmworkers, children, and women of childbearing age. Risk characterization determines the exposure levels at which harmful effects will not be caused. Draft EADs and RCDs undergo external peer review by scientists at the Office of Environmental Health Hazard Assessment and EPA.

In addition, DPR oversight includes:

- Licensing of pesticide professionals;
- Site-specific permits required before restricted-use pesticides may be used in agriculture;
- Strict rules to protect workers and consumers;
- Mandatory reporting of pesticide use by agricultural and pest control businesses;
- Environmental monitoring of water and air; and
- Testing of fresh produce for pesticide residues.

The regulations require that employers of pesticide workers provide protective clothing, eyewear, gloves, respirators, and any other required protection, and require employers to ensure that protective wear is worn according to product labels during application. The regulations also require that employers provide field workers with adequate training in pesticide application and safety; communicate pesticide-related hazards to field workers; ensure that emergency medical services are available to field workers; and ensure adherence to restricted-entry intervals between pesticide treatments (3 CCR Section 6764). DPR requires that the application of pesticides or other pest control in connection with the indoor or outdoor cultivation of cannabis complies with 3 CCR Division 6 (commencing with Section 11401) of the Food and Agricultural Code and its implementing regulations (Business and Professions Code 19332[f]).

Pesticide Use in Cannabis Cultivation

Cannabis pests vary according to cultivar (variety), whether the plants are grown indoors or outdoors, and where the plants are grown geographically. Pesticides legal for use on cannabis must have active ingredients that are exempt from residue tolerance requirements and are either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis. Residue tolerance requirements are set by EPA for each pesticide on each food crop and is the amount of pesticide residue allowed to remain in or on each treated crop with "reasonable certainty of no harm." Some pesticides are exempted from the tolerance requirements when they are found to be safe. Some of these pesticides are bacterial-based insect pathogens (e.g., *Bacillus thuringiensis*) or biofungicides (e.g., *Bacillus subtilis*, *Gliocladium virens*). Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil.

The use of restricted pesticides on cannabis cultivation is prohibited. This is similar to organic crops that are covered under the Yolo Certified Organic Agriculture program which prohibits the use of restricted pesticides, includes a notification process for adjoining agricultural uses that organic crops are nearby, and limits soil inputs to materials approved as an organic input by CDFA.

Testing Standards for Cannabis Goods

Upon taking physical possession of a cannabis goods batch, cannabis distributors are required under CCR Title 16, Division 42, Section 5304, to have the cannabis tested by a licensed testing laboratory. Testing facilities must be an accredited laboratory that perform tests consistent with the requirements of CCR Section 5702. Cannabis must be sampled for the following constituents and pass the testing levels set forth in CCR Sections 5718 through 5725:

- cannabinoids;
- foreign material;
- heavy metals;
- microbial impurities;
- mycotoxins;
- moisture content and water activity;
- residual pesticides;
- residual solvents and processing chemicals;
- terpenoids, if applicable; and
- homogeneity, if applicable.

If the tested cannabis batch that consists of group of cannabis plant material fails these tests, the cannabis batch will not be released for retail sale and must be disposed of in accordance with applicable regulations.

Cannabis Cultivation Regulations

CCR Title 3, Food and Agriculture, Division 8, Cannabis Cultivation, Chapter 1, Cannabis Cultivation Program includes the following requirements for the handling of pesticides:

- Section 8307(a): Licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation.

- Section 8307(b): For all pesticides that are exempt from registration requirements, licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols:

  (1) Comply with all pesticide label directions;

  (2) Store chemicals in a secure building or shed to prevent access by wildlife;

  (3) Contain any chemical leaks and immediately clean up any spills;

  (4) Apply the minimum amount of product necessary to control the target pest;

  (5) Prevent offsite drift;

  (6) Do not apply pesticides when pollinators are present;

  (7) Do not allow drift to flowering plants attractive to pollinators;

  (8) Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;

  (9) Do not apply pesticides when they may reach surface water or groundwater; and

  (10) Only use properly labeled pesticides. If no label is available consult the Department of Pesticide Regulation.

LOCAL

Yolo County 2030 Countywide General Plan

The Vision and Principles Chapter of the Yolo County 2030 Countywide General Plan (General Plan) identifies the vision of Yolo County is to remain an area of active and productive farmland and open space. This vision is further guided through General Plan policy provisions that address the need to promote, conserve and protect agricultural lands and operations.

Policies specific to agriculture and potentially relevant to the CLUO and its implementation are identified below:

- **Policy AG-1.1:** Protect and enhance the County's four key agricultural sectors. This includes: (1) retaining existing growers and processors of crops; (2) encouraging the growth of emerging crops and value-added processing; (3) supporting small and organic producers and their ability to serve visitors; and (4) enhancing the transfer of new technologies into practical applications for seeds, crops, fuels, alternative energy, food processing, etc.

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

- **Policy AG-2.5**: Support high value and intensive farming practices on appropriate agricultural soils. Prime soils and other productive agricultural land outside of growth boundaries shall be preserved wherever feasible

- **Policy AG-2.11:** Encourage farmers to use agricultural methods that reduce or minimize use of pesticides, herbicides and manufactured fertilizers.

- **Policy AG-3.2**: Allow uses that support agriculture, such as agricultural commercial uses, agricultural industrial uses, direct product sales, processing, farm-based tourism, agricultural research, and farm worker housing, on agricultural land subject to appropriate design review and development standards.

- **Policy AG-3.4:** Recognize and protect agricultural infrastructure, such as farm-to-market routes, water diversion and conveyance structures, fertilizer and chemical sales, airfields, processing facilities, research and development and farm worker housing.

- **Policy AG 3.7:** Support the development of local suppliers for agricultural goods and services, including small-scale and/or mobile processing facilities and distribution centers for locally produced foods.

- **Policy AG-3.8:** Encourage re-use, for agricultural purposes, of agricultural industrial facilities that are no longer needed due to changing economic conditions.

- **Policy AG-3.16:** Promote agricultural innovation, including research and development, biotechnology, sustainable farm practices, agri-tourism and non-traditional agricultural operations in order to expand and improve business and marketing opportunities for those engaged in a3griculture.

- **Policy AG-5.1:** Promote markets for locally and regionally grown and/or prepared food and other products and services.

- **Policy AG-6.1:** Continue to promote agriculture as the primary land use in the portion of Yolo County that lies within the Primary Zone of the Sacramento-San Joaquin Delta.

- **Policy ED-1.3:** Encourage businesses that promote, provide services, and support farming, with an emphasis on value-added agriculture, agri-tourism, food processing and agricultural suppliers.

- **Policy LU-2.2:** Allow additional agricultural commercial and agricultural industrial land uses in any designated agricultural area, where appropriate, depending on site characteristics and project specifics. Manage agricultural parcels of less than 20 acres, including antiquated subdivisions where appropriate, to create compatibility with surrounding agricultural uses to the greatest extent possible.

- **Policy LU-2.3:** Prohibit the division of land in an agricultural area if the division is for non-agricultural purposes and/or if the result of the division will be parcels that are infeasible for farming. Projects related to clustering and/or transfers of development rights are considered to be compatible with agriculture.

- **Policy LU-2.4:** Vigorously conserve, preserve, and enhance the productivity of the agricultural lands in areas outside of adopted community growth boundaries and outside of city SOIs [spheres of influence].

The General Plan defines the Agriculture (AG) land use designation as:

> Full range of cultivated agriculture such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, confined animal facilities, and equestrian facilities. Agricultural industrial – agricultural research, processing and storage; crop dusting. Agricultural commercial – roadside stands, "Yolo Stores," wineries, farm-based tourism (e.g. u-pick, dude ranch, lodging), horse shows, rodeos, crop-based seasonal events; agricultural chemical and equipment sales. Pre-existing isolated restaurants and/or stores (e.g. old stage stops and cross-roads) serving rural areas. Farmworker housing. Surface mining. Incidental habitat.

Yolo County Community Plans

In addition to the General Plan, the following local plans provide further area-specific policy provisions that address agriculture and are relevant to the project:

Esparto Community Plan (2019)

- **Policy E-LU.28:** Local organizations including the New Season Community Development Corporation, Capay Valley Vision, and the Esparto Chamber of Commerce, shall actively promote, pursue, and attract appropriate industrial development. Of special interest is industry related to agriculture such as meat processing or nut hulling.

Town of Knights Landing Community Plan (1999)

Open Space for Managed Resource Production Areas

- **Policy 1:** To avoid the premature conversion of agricultural lands within and outside of the Town limits, residential expansion shall occur only on lands designated for such expansion.

Capay Valley Area Plan (2010)

- **Agriculture Policy 1:** The County shall maintain, encourage, and actively support agricultural use within the Capay Valley Area Plan planning area.

- **Agriculture Policy 2:** The County shall protect agricultural land as a resource rather than a commodity.

- **Agriculture Policy 5:** The County shall pursue all options, as allowed by law, to eliminate or deter the development of antiquated subdivisions.

- **Agriculture Policy 6:** The County shall retain parcel sizes in agriculturally zoned areas that are large enough to support viable agricultural production.

    - **Implementation Measure 3:** Yolo County shall review future land use proposals in order to encourage the continuation of viable agricultural units.

- **Agriculture Policy 7**: The County shall require that land uses in areas designated for agricultural use shall be limited to those directly related to agricultural production or support of agriculture.

- **Agriculture Policy 8**: The County shall encourage the establishment of small-scale agriculture uses, such as specialty crops, organic farming, cottage industries and specialized animal facilities where small parcels of land presently exist in agricultural areas with suitable soils.

    - **Implementation Measure 1**: Yolo County shall encourage specialty farming areas that contain sufficient restrictions to assure that such areas do not become rural residential or ranchette developments.

    - **Implementation Measure 2**: Yolo County shall recognize the potential for commercial agriculture, such as direct sales, processing, agri-tourism, and other ancillary activities that are compatible with the rural quality of life and unique community character of the Capay Valley.

- **Agriculture Policy 9**: Yolo County, to the extent allowed under State law, shall prevent the subdivision of agricultural land except when the subdivision is beneficial to agriculture.

Clarksburg Area Community Plan (2015)

- **Policy A1:** Support expanded productivity, conservation, enhancement, and economic viability of privately owned agricultural land.

- **Policy A2:** Support agricultural (including production, processing, distribution, industrial and marketing operations), rural recreation, and open space land uses that sustain and create demand for commercial services within the Clarksburg town area.

- **Policy A4:** Development of agricultural support uses outside the Clarksburg town area should continue to be the focus and direction of the Clarksburg community when considering changes in land use.

- **Policy A11:** Promote beer manufacturing, distilled spirits manufacturing, and related supportive crop industries.

- **Policy A12:** Support Clarksburg community agricultural product, processing, marketing, sales, and distribution labeling and branding.

Dunnigan Community Plan (2001)

- **Policy D-LU20:** New agriculture related industrial development may be allowed from County Road 8 to Bird Creek on the east side of I-5, west of the Southern Pacific Railroad and County Road 99W. Examples of such uses include farm machinery sales and repair, agricultural processing facilities, product or equipment warehousing, and farm supply stores.

Yolo County Zoning Regulations

The Yolo County Zoning Regulations establish several zoning districts that are associated with the agricultural land uses designated by the General Plan. The agricultural zoning districts include agricultural intensive (A-N), agricultural extensive (A-X), agricultural commercial (A-C), agricultural industrial (A-I), and agricultural residential (A-R). The purpose of the agricultural zones is to allow for land uses that support and enhance agriculture land uses in the unincorporated area of the County.

As described in Yolo County Code Section 8-2.303, allowed agricultural use types include the full range of cultivated agriculture, such as the on-site production of plant and animal products by agricultural methods, as well as agricultural commercial uses, agricultural industrial uses, and agricultural residential uses, serving the rural areas. Section 8-2.303 also includes agricultural land uses and operations that include processing of agricultural products, accessory uses such as greenhouses, commercial uses such as permanent produce stands, agricultural chemical/fertilizer sales, wineries, breweries, cottage food operations, and industrial uses such as regional processing facilities (e.g., wine, beer, spirit, olive oil production, canneries, and commercial composting) (Zoning Regulation Tables 8-2.304[a], 8-2.304[c], and 8-2.304[d]).

Yolo County Agricultural Commissioner Pesticide Application Protection Standards

In addition to DPR pesticide handling requirements, the Yolo County Agricultural Commissioner has established ten "Use Conditions" for the use of restricted pesticides that have been updated in 2019 for the protection of public health and adjoining land uses (Yolo County Agricultural Commissioner 2019). A summary of these conditions is identified below:

1. Conditions Covering the Use of Restricted Materials in the Proximity of Environmentally Sensitive Areas
2. Conditions Covering the Aerial Application of Restricted Pesticides

2A. Conditions Covering Aerial Applications of Restricted Materials Near Farm Worker Housing Facilities

3. Conditions Covering the Aerial Application of Restricted Materials in the Proximity of Occupied Rural Dwellings
4. Conditions Requiring the Posting of Sunflower Seed Fields
5. Conditions Covering the Use of Paraquat
6. Conditions Covering the Use of Phenoxy Herbicides and Dicamba
7. Conditions Covering the Use of Materials Harmful to Honeybees

8. Conditions Covering Dormant and Delayed Dormant Applications of Insecticides in Orchards
9. Conditions Covering Notice of Intent and Use Reports
10. Conditions Covering Storage and Disposal of Pesticides and Pesticide Containers

These conditions include the following standards regarding pesticide application activities:

- Application restrictions regarding equipment used and speed of application.
- Buffers/setbacks for ground and aerial application from environmentally sensitive areas (residential uses and communities, schools, playgrounds, parks, labor camps, organic crops, water features, livestock, and habitat areas) and type of pesticide used. These buffers/setbacks vary in size based on the environmentally sensitive area and the method of application (buffers range from 50 feet to 2 miles depending on the pesticide and the sensitive receptor).
- Wind direction and speed restrictions for ground and aerial application.
- Restriction on the maximum height above a crop or target that pesticides can be discharged.
- Temperature restrictions for application.

3.2.3 Environmental Impacts and Mitigation Measures

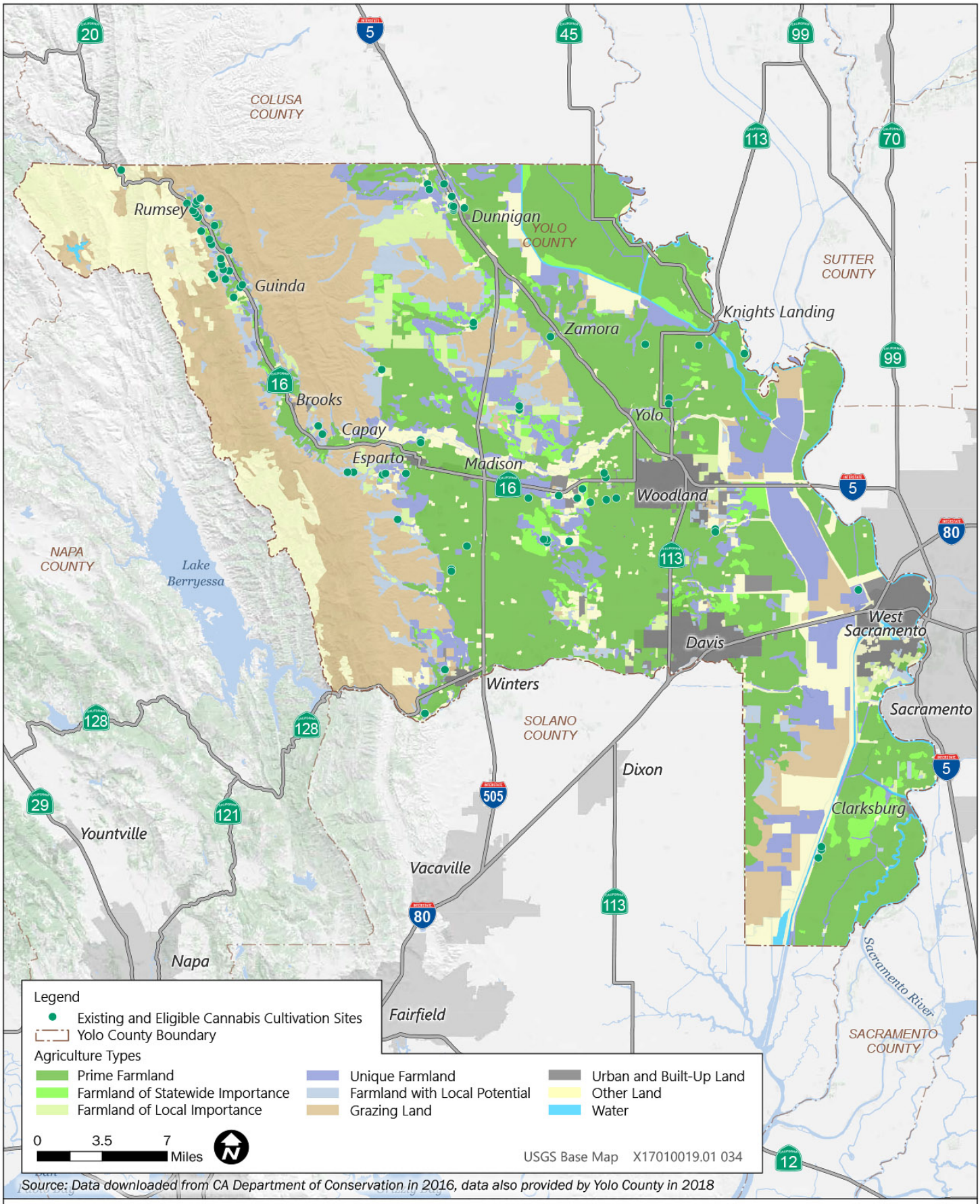
METHODS AND ASSUMPTIONS

The baseline conditions for agricultural resources in the County are described in Section 3.2.1, "Environmental Setting." and include available important farmland data (see Exhibit 3.2-1 and Table 3.2-3), 2017 farmland production data (see Table 3.2-4), and 2016 and 2017 crop value data (see Tables 3.2-5 and 3.2-6).

The impact analysis below evaluates whether adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in significant impacts to important farmland and agricultural operations in the County. The analysis below includes an evaluation of typical cannabis cultivation and noncultivation practices and whether they could result in the loss of farmland or conflict with adjacent agricultural operations. This analysis is based on cultivation and noncultivation use assumptions for each of the five alternatives described in Table 2-4. These assumptions are presented in Appendix D and relate to size of cultivation and noncultivation operations, extent of relocation of existing cultivation sites in compliance the CLUO, land areas and zoning of sites (agricultural, commercial, and industrial zones) and the extent of vertical integration of cannabis uses on a single site (Alternatives 2 through 5).

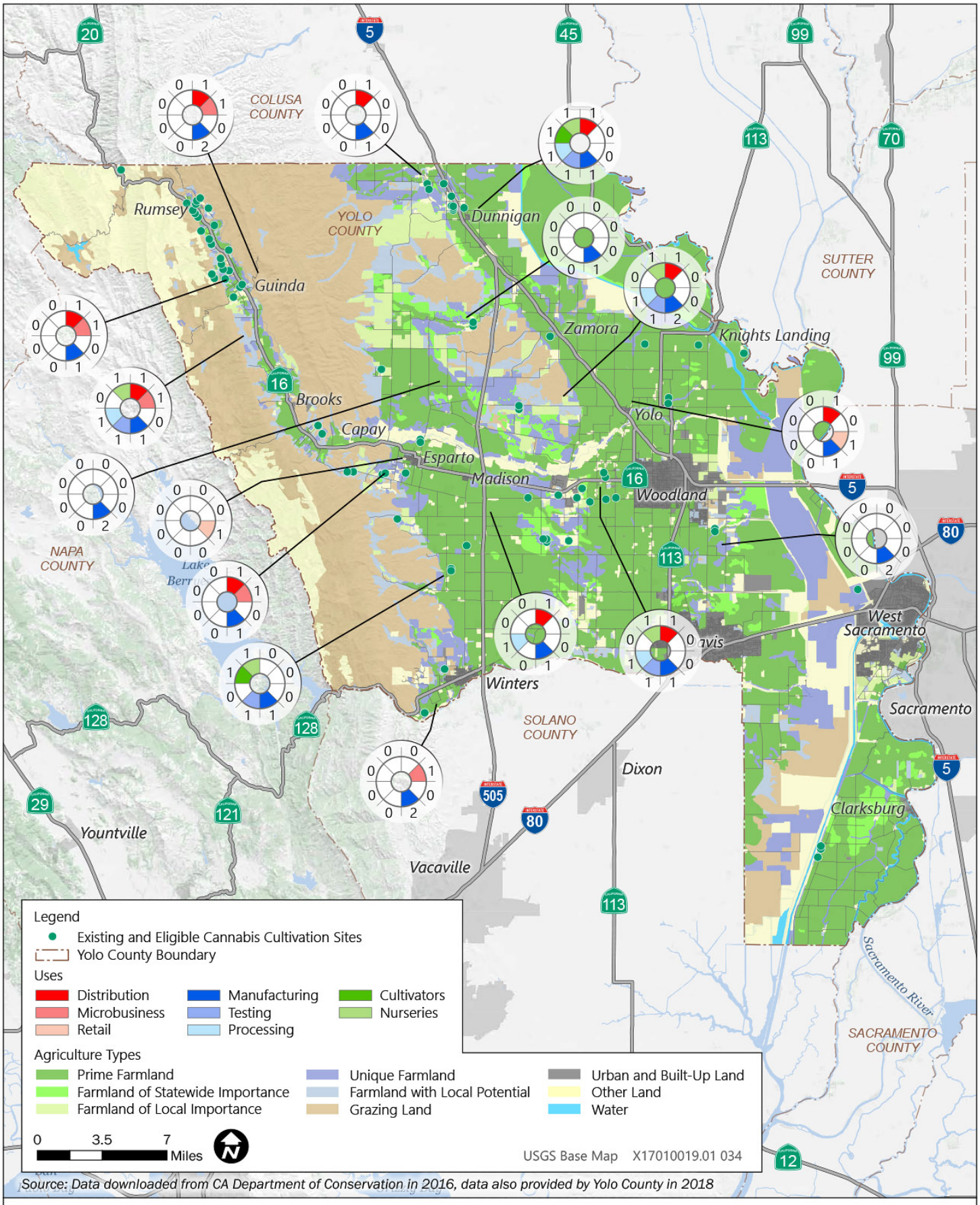
Exhibits 3.2-2 through 3.2-6 identify the assumed locations of cannabis uses for each alternative relation to farmland categories shown in Exhibit 3.2-2. Pursuant to the guidance in CEQA, the analysis focuses specifically on actions that could result in conversion of important farmland to nonagricultural uses, conflicts with existing agricultural uses, and conflicts with policies and regulations intended to protect farmland.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.



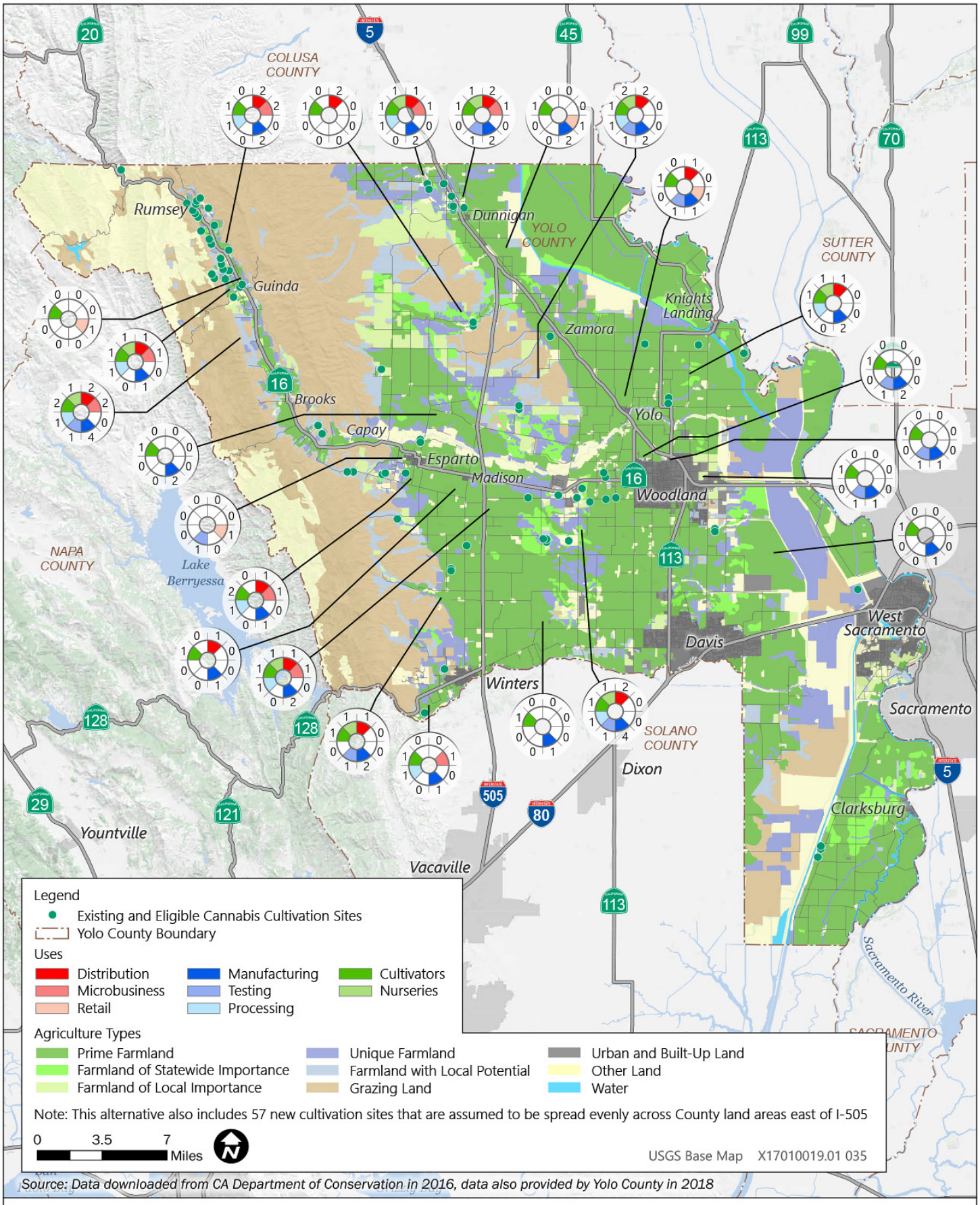
Source: Data downloaded from CA Department of Conservation in 2016, data also provided by Yolo County in 2018

Exhibit 3.2-2 **Alternative 1 Cannabis Uses and Important Farmland**



Source: Data downloaded from CA Department of Conservation in 2016, data also provided by Yolo County in 2018

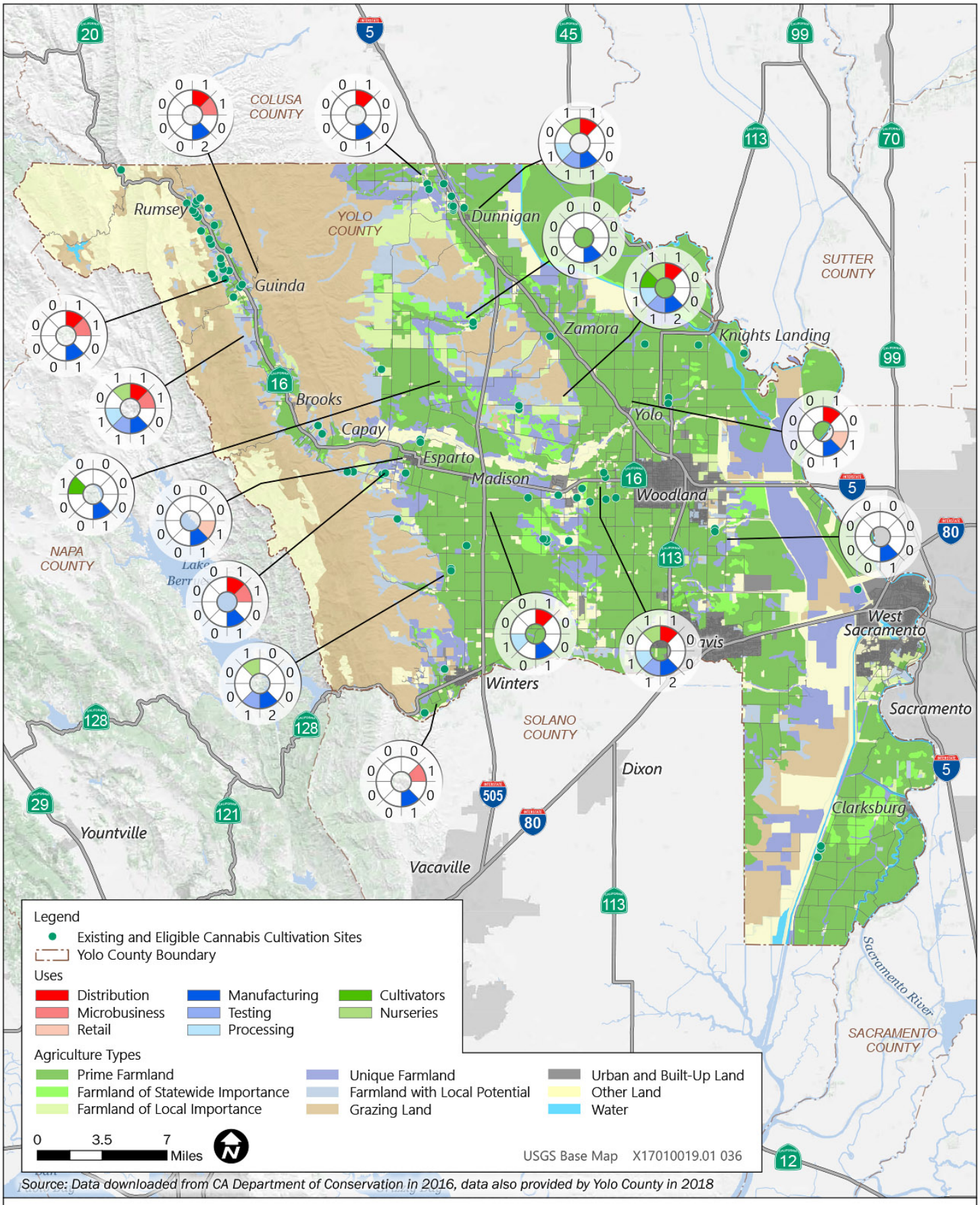
Exhibit 3.2-3 **Alternative 2 Cannabis Uses and Important Farmland**



Source: Data downloaded from CA Department of Conservation in 2016, data also provided by Yolo County in 2018

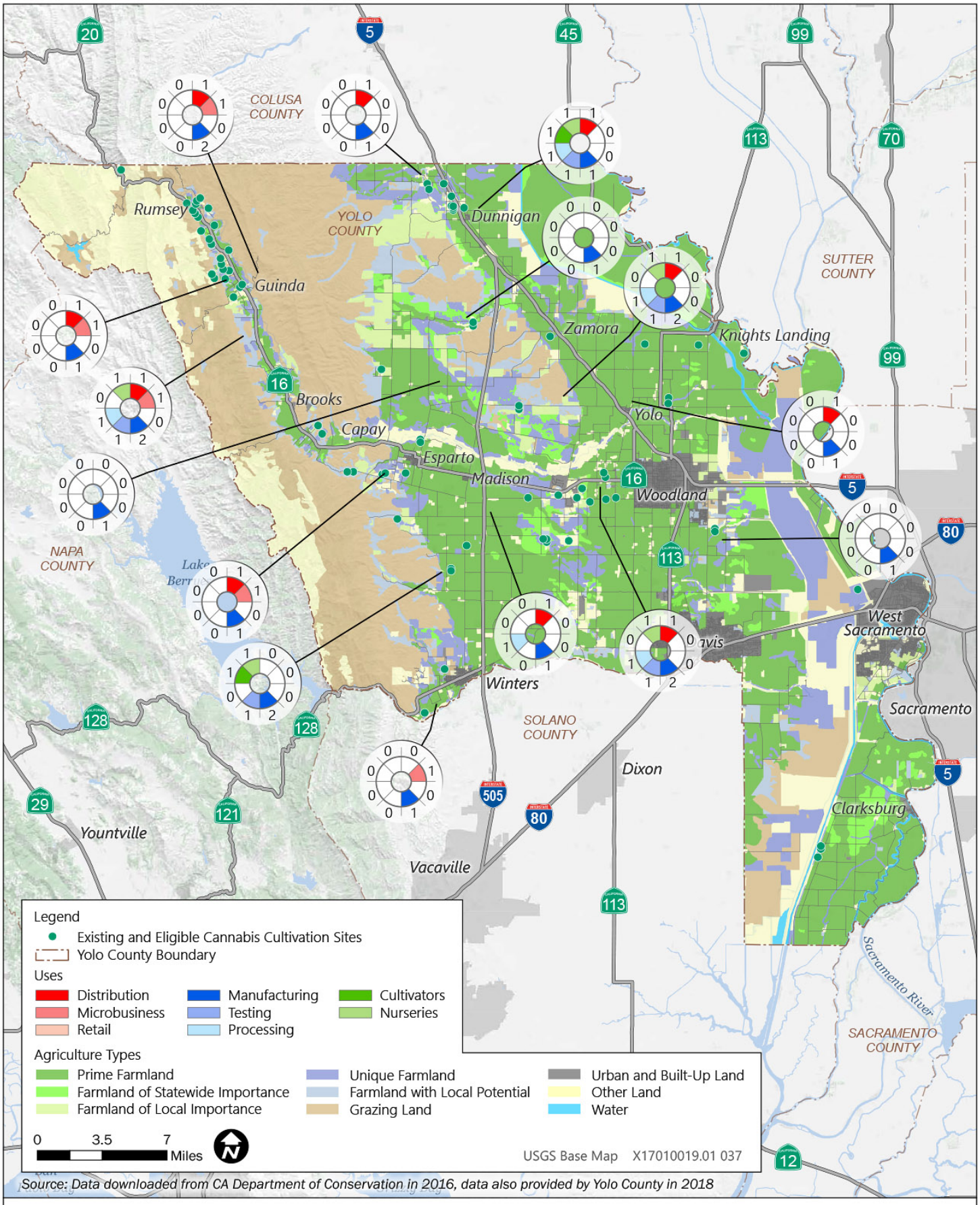
Exhibit 3.2-4 **Alternative 3 Cannabis Uses and Important Farmland**

ASCENT ENVIRONMENTAL



Source: Data downloaded from CA Department of Conservation in 2016, data also provided by Yolo County in 2018

Exhibit 3.2-5 **Alternative 4 Cannabis Uses and Important Farmland**



Source: Data downloaded from CA Department of Conservation in 2016, data also provided by Yolo County in 2018

Exhibit 3.2-6 **Alternative 5 Cannabis Uses and Important Farmland**

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would result in a significant impact on agricultural resources if it would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance ("Important Farmland" or "Farmland" as defined by CEQA) as shown on the maps prepared pursuant to the FMMP of the California Resources Agency to nonagricultural use;
- conflict with existing zoning for agricultural use or with a Williamson Act contract;
- involve other changes in the existing environment which, because of their location or nature, could result in conflicts or a conversion of farmland to nonagricultural use; or
- conflict with applicable plans, policies, and regulations where such conflict would result in an adverse physical change in the environment.

As described in Section 3.0, "Approach to the Environmental Analysis," no significant impacts to forestry resources would occur from implementation of the CLUO.

IMPACT ANALYSIS

Impact AG-1: Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), or Farmland of Local Importance

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, could result in an increase in cannabis cultivation sites and the creation of new noncultivation uses in the County. Cannabis is defined by the state, and is proposed to be defined in the CLUO, as an agricultural land use and as such, the implementation of the CLUO under each of its five alternatives would not result in conversion of farmland to nonagricultural uses. Thus, there would be **no impact** related to conversion of farmland to nonagricultural use under any of the alternatives.

Pursuant to California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) the state has defined medical and adult-use cannabis as agricultural products. Section 8-2.1404(E) of the proposed CLUO identifies cannabis cultivation and related activities as agricultural land uses. Section 8-2.1404(E) states:

> Cannabis Cultivation and Related Activities are Agricultural Land Uses -- Legal cultivation of cannabis is an agricultural use.

As described in Section 2.2.1, "Summary of Cannabis Cultivation and Commerce Processes," of Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," the cultivation and commerce process for cannabis involves largely same practices as other agricultural products currently generated in the County. These similar practices include:

- cultivation of the crop through a growth medium (soil), light, water, and nutrients;
- harvesting and processing of the crop for sale;
- industrial activities that create products from the crop; and
- sales of crop and/or products created from the crop.

However, there are differences in how cannabis cultivation is conducted in the County as compared to other agricultural operations. While the average cannabis cultivation parcel size in the County is 40 acres, the cannabis cultivation activity footprint is generally no larger than 2 acres because the cultivation garden

canopy is limited to 1 acre under Yolo County Code Section 5-20.04(A)(2)(a)(1).[1] As a result the operations dedicated to cultivation are concentrated and the remaining land areas of the parcel are not used as part of the cultivation operation. This differs from other County agricultural operations such as row crops, orchards and vineyards, and pastureland that commonly use the entire parcel area. The potential uses of these remaining lands on cultivation sites are subject to the requirements of the General Plan and County Zoning Regulations. The CLUO includes the following requirement for maintenance of cannabis sites to avoid nuisances and pest issues that could result in impacts to adjoining agricultural uses:

- Section 8-2.1408(B) Agricultural Maintenance: Permittees on agricultural land must demonstrate to the satisfaction of the County Agricultural Commissioner that the majority of the parcel, excluding the area in cannabis cultivation, will be used for agricultural activities and/or will be properly maintained (e.g. weed abatement, pest management, etc.) when not in agricultural use to, among other things. avoid maintenance deficiencies that conflict with agriculture on other nearby properties.

Implementation of the CLUO would allow for the continued operation of the 78 existing and eligible cannabis cultivation uses in the County subject to obtaining approval of a Cannabis Use Permit. Implementation of Alternatives 2, 3, 4, and 5 assume additional cannabis cultivation uses and new noncultivation cannabis uses (manufacturing, distribution, retail, testing, microbusinesses, processing, and nurseries) within the County's agricultural zones as well as commercial and industrial zones. Noncultivation cannabis uses would support the success of cannabis cultivation consistent with General Plan policies AG-3.2, AG-3.4, AG-3.7, ED-1.3 that allow for uses that support agriculture including commercial uses, product sales, processing, and distribution of locally produced crops. Noncultivation cannabis uses are considered by the County as compatible with farmland and are similar to agricultural land uses currently allowed under the Zoning Regulations. Section 8-2.303 of the Yolo County Code allows agricultural land uses and operations that include processing of agricultural products, accessory uses such as greenhouses, commercial uses such as agricultural chemical/fertilizer sales, wineries, breweries, and industrial uses such as regional processing facilities (e.g., wine, beer, spirit, olive oil production, canneries, and commercial composting) (Zoning Regulation Tables 8-2.304[a], 8-2.304[c], and 8-2.304[d]).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given these CLUO requirements and the fact that personal outdoor cultivation would be an ancillary use to a parcel developed with a legal residence, no agricultural use impacts are expected.

Thus, cannabis cultivation and noncultivation operations that may occur under CLUO would not convert farmland to a nonagricultural use for any of the alternatives. **No impact** would occur.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AG-2: Conflict with Existing Agricultural Zoning or with a Williamson Act Contract

Implementation of the CLUO would create new land use regulations that would provide additional standards and restrictions on the cultivation of cannabis and supporting noncultivation uses. These requirements would complement and not conflict with existing County zoning requirements for agricultural uses or any Williamson Act contracts. There would be **no impact** related to zoning for agricultural use or Williamson Act contracts under any of the alternatives.

[1] See Appendix B for a summary of existing cultivation operations in the County and Appendix D for cannabis use assumptions for each alternative.

The CLUO would add Article 14 to Title 8, Chapter 2, of the Zoning Regulations within the Yolo County Code. It would regulate all cannabis operations within the unincorporated area of the County. Specific land use requirements and development performance standards are included in the CLUO that address, among many topics, the following agriculture operation–related issues:

- agricultural applications (Section 8-2.1408[A]),
- agricultural maintenance (Section 8-2.1408[B]),
- buffers between application areas and defined sensitive land uses (Section 8-2.1408[E]),
- driveway design and access (Section 8-2.1408[K]),
- dust control (Section 8-2.1408[L]),
- energy use (Section 8-2.1408[O]),
- fire protection (Section 8-2.1408[Q]),
- generators (Section 8-2.1408[T]),
- good neighbor communication (Section 8-2.1408[U]),
- grading and land clearing (Section 8-2.1408[V]),
- hazardous materials (Section 8-2.1408[W]),
- lighting (Section 8-2.1408[Z]),
- noise control (Section 8-2.1408[BB]),
- nuisance (Section 8-2.1408[CC]),
- odor control (Section 8-2.1408[DD]),
- security (Section 8-2.1408[LL]),
- tree protection (Section 8-2.1408[RR]),
- solid waste management (Section 8-2.1408[SS]), and
- water supply and use (Section 8-2.1408[VV]).

These provisions establish additional requirements for the cultivation and handling of cannabis that do not apply to other agricultural operations and would not conflict with the requirements set forth in Yolo County Zoning Regulations Article 3 (Agricultural Zones). The CLUO would be incorporated into the County Zoning Regulations. Section 8-2.1401(A) of the CLUO addresses consistency with other County land use and development standards in the Zoning Regulations (including requirements in Article 3):

> Title 8 (Land Development) Chapter 2 (Zoning Regulations) – The Zoning Regulations establish land use districts, controls on land uses, and development standards. The Cannabis Land Use Ordinance applies these regulations, as appropriate, to identified cannabis use types. Unless otherwise specified, the Cannabis Land Use Ordinance is intended to establish separate and distinct regulations applicable to all cannabis use types. Where the Cannabis Land Use Ordinance is silent on an issue that is otherwise addressed elsewhere in the Zoning Regulations, the Zoning Regulations shall apply. Where a requirement of the Cannabis Land Use Ordinance conflicts with a requirement of the Zoning Regulations, the stricter requirement shall apply.

Implementation of the CLUO would also not conflict with Williamson Act contracts. Currently the Zoning Regulations allow both agricultural production (cultivation of crops) and certain agricultural supporting land uses to occur on Williamson Act contracted lands. As set forth in Section 106 (Compatible Uses) of the Yolo County Williamson Act Guidelines, compatible uses are those which are permitted or conditionally permitted in the County agricultural zones (A-N, A-X, A-I, and A-C). Under Alternatives 1-3, and 5, CLUO Section 8-2.1407 would designate personal use outdoor cultivation as an allowed use, while commercial cultivation and noncultivation uses would be allowed subject to the approval of a Cannabis Use Permit. Pursuant to Section 106 (Compatible Uses) of the Yolo County Williamson Act Guidelines, Use Permits (this would include Cannabis Use Permits under the CLUO) on Williamson Act contract land would only be issued if the cannabis use is consistent with the following principles of compatibility found in Government Code Section 51238.1 that is intended to protect the agricultural use of the land:

- The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.

- The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.

- The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Thus, the CLUO would not conflict with existing County zoning requirements for agricultural uses or any Williamson Act contracts. There would be **no impact** with zoning for agricultural use or Williamson Act contracts under any of the alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AG-3: Create Conflicts with Agricultural Uses or Conversion of Farmland to Nonagricultural Uses

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, could result in an increase in cannabis cultivation sites and the creation of new noncultivation cannabis uses in the County that currently do not exist. Cannabis cultivation and noncultivation uses would not result in conflicts with agricultural uses that would result in the conversion of farmland. Thus, this impact would be **less than significant** under all the alternatives.

As described in Impact AG-1, the cultivation and commerce process for cannabis involves the similar practices as other agricultural products generated currently in the County (cultivation, harvesting, industrial activities to create products from the crop, and sales of the crop and/or products made from the crop). General Plan Action AG-A7 acknowledges value of the active agricultural lands and the acceptance of the potential nuisances of nearby farming on adjacent uses.

Potential concerns regarding conflicts with adjoining agricultural uses consist of pesticide usage and the lack of maintenance of remaining land areas not used as part of the cultivation operation that may generate pests that adversely impacts neighboring agricultural operations. Alternative 1 is generally assumed to maintain the existing extent of 78 cannabis and eligible cultivation uses in the County, while Alternatives 2, 3, 4, and 5 are generally assumed to create new cannabis cultivation and noncultivation uses. For all alternatives the restrictions of the assumed buffers and zoning would result in some relocations of the 78 existing sites. Also, there may be other constraints specific to a site (such as slope, flooding, biological resources, etc.) that could lead to modification or denial of a particular use permit application. This is discussed as relevant throughout this EIR.

As described in Section 3.2.2, "Regulatory Setting," pesticides used on cannabis cultivation sites are restricted to those with active ingredients that are exempt from residue tolerance requirements and are either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis. Some of these pesticides are bacterial-based insect pathogens (e.g., *Bacillus thuringiensis*) or biofungicides (e.g., *Bacillus subtilis*, *Gliocladium virens*). Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil. The use of restricted pesticides on cannabis cultivation is prohibited. Harvested cannabis is required to pass laboratory tests for the following constituents as required under CCR Title 16, Division 42, Sections 5304 and 5702:

- cannabinoids;
- foreign material;
- heavy metals;

- microbial impurities;
- mycotoxins;
- moisture content and water activity;
- residual pesticides;
- residual solvents and processing chemicals;
- if applicable, terpenoids; and
- if applicable, homogeneity.

In addition, the CLUO includes the following requirement regarding agricultural applications that are intended to protect public health and adjoining agricultural uses:

- Section 8-2.1408(A) Agricultural Applications: This category includes fertilizers, herbicides, pesticides, rodenticides, fumigants, and other inputs/applications for improved agricultural performance. Permittees shall comply with applicable County and State requirements, and manufacturer instructions, for use to the satisfaction of the County Agricultural Commissioner and other responsible official. California Department of Food and Agriculture (CDFA) licensees shall implement the Pest Management Plan required pursuant to Section 8106(a)(3) and Section 8106(b)(2) of the CDFA Regulations, as applicable. CDFA licensees shall comply with pesticide laws and regulations as enforced by the Department of Pesticide Regulation pursuant to Section 8307, Pesticide Use Requirements, of the CDFA Regulations.

The use of restricted pesticides is an existing component of the ongoing agricultural operations countywide. The 2017 Yolo County Agricultural Crop Report identifies that there were 328,452 acres of active agricultural operations that generated $635 million in revenues in 2017.

DPR places controls on pesticides based on the results of risk characterization studies and documentation that limits their use to trained individuals and then only at times and places approved by the county agricultural commissioners. As described in Section 3.2.2, “Regulatory Setting,” the Yolo County Agricultural Commissioner has established 10 “use conditions” for the use of restricted materials (pesticides) that have been updated for 2019 for the protection of public health and adjoining land uses. These conditions include the following standards regarding restricted pesticide application activities:

- Application restrictions regarding equipment used and speed of application.

- Buffers/setbacks for ground and aerial application from environmentally sensitive areas (residential uses and communities, schools, playgrounds, parks, labor camps, organic crops, water features, livestock, and habitat areas) and type of pesticide used. These buffers/setbacks vary in size based on the environmentally sensitive area and the method of application (buffers range from 50 feet to 2 miles depending on the pesticide and the sensitive receptor).

- Wind direction and speed restrictions for ground and aerial application.

- Restriction on the maximum height above a crop or target that pesticides can be discharged.

- Temperature restrictions for application.

Technical studies have confirmed the effectiveness of the use of buffers and drift-reducing spray nozzles, limiting speed of application, and wind speeds to address pesticide drift (Rasmussen et al. 2011; Egan et al. 2014; Al Heidary et al. 2014). Thus, these requirements and controls are effective in avoiding pesticide drift impacts.

Exposure to restricted pesticides due to pesticide drift resulting from applications occurring at off-site farming operations is prohibited. Pesticide drift could adversely affect cannabis cultivation in a manner similar to organic crops currently grown in the County. The Yolo County Agricultural Commissioner investigates reported improper pesticide applications, including pesticide drift. Confirmation of pesticide drift can result in warning letters, fines, or loss of licensing to conduct pesticide application.

Additionally, because state regulatory thresholds for pesticide presence in cannabis are generally very low, the Yolo County Agricultural Commissioner has opined that the migration of dust containing reside from pesticides properly applied on nearby farming operations could, by itself, be sufficient to render cannabis unfit for sale, Unlike pesticide drift occurring during application, the Agricultural Commissioner does not regulate the migration of dust from field to field during wind events, farming operations, or otherwise. In this scenario, the potential may exist for a cannabis crop to be rendered unmarketable even though the application of pesticides on nearby properties conformed to all legal requirements.

Whether due to pesticide drift or a subsequent migration of dust from nearby fields, the use of restricted pesticides in a lawful manner is part of the environmental setting. CEQA does not consider effects of the environment *on a project* to be "environmental impacts" for purposes of analysis, mitigation, or otherwise. Rather, CEQA is directed at adverse environmental changes anticipated to be caused *by a project*. (*California Building Industry Association v. Bay Area Air Quality Management Dist.*, 62 Cal.4th 369, 377 (2015).) For this reason, this document does not further evaluate impacts of spray drift or other potential effects of lawful pesticide applications occurring in the vicinity of cannabis cultivation.

Separately, there are also differences in how cannabis cultivation is conducted in the County, as compared to other agricultural operations, that result in remaining land areas of the parcel not used as part of the cultivation operation. If left unmaintained, these areas can generate agricultural pest issues that could impact adjoining agricultural uses. The CLUO includes the following requirement for maintenance of cannabis sites (cultivation and noncultivation) to avoid nuisances and pest issues:

- Section 8-2.1408(B) Agricultural Maintenance: Permittees on agricultural land must demonstrate to the satisfaction of the County Agricultural Commissioner that the majority of the parcel, excluding the area in cannabis cultivation, will be used for agricultural activities and/or will be properly maintained (e.g. weed abatement, pest management, etc.) when not in agricultural use to, among other things. avoid maintenance deficiencies that conflict with agriculture on other nearby properties.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given these CLUO requirements and the fact that personal outdoor cultivation would be ancillary to any allowed residential use of a parcel, no conflicts with adjoining agricultural use impacts are expected.

Thus, cannabis cultivation and noncultivation operations that may occur under CLUO would be restricted in their use of pesticides and would be required to maintain the parcel that would include pest management to avoid significant conflicts with adjoining agricultural uses. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AG-4: Conflict with Yolo County General Plan and Community Policies Related to Agricultural Resources

The adoption of the CLUO would include amending the Yolo County 2030 Countywide General Plan to acknowledge cannabis as a legal crop in the state of California. Adoption and implementation of the CLUO would be consistent with General Plan and County community plan policies related to agricultural resources by adopting updated and new policies related to cannabis operations. This impact would be **less than significant** under all the alternatives.

As described in Section 2.5, "General Plan Amendment," of Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," amendments to the General Plan are proposed to acknowledge cannabis as a legal commercial crop in the state of California. These General Plan amendments include the following:

- Identification of cannabis uses as appropriate land uses under the Agriculture, Commercial General, Commercial Local, and Industrial land use designations.
- Modifications of General Plan policies LU-2.3 and AG-1.3 to include cannabis cultivation or cannabis activities in the list of uses prohibited from dividing agricultural land.
- Addition of a new General Plan policy acknowledging cannabis cultivation and noncultivation uses as a new agricultural opportunity in support of agricultural economic development, preservation of agricultural land, and creation of opportunities for new farmers.

These amendments and adoption of the CLUO to regulate a potential range of cannabis cultivation and new noncultivation uses that would provide processing, distribution, and commercial uses supporting the local cultivation of cannabis assumed in Alternatives 1, 2, 3, 4, and 5 would be consistent with General Plan and community plan agricultural policies described in Section 3.2.2, "Regulatory Setting." These agricultural policy provisions include protection and enhancement of agricultural uses (General Plan policies: AG-1.1, AG-1.3, and LU-2.3, Capay Valley Area Plan Agriculture Policy 9) as well as support and diversify agricultural uses (General Plan policies: AG-3.2, AG-3.4, AG-3.7, AG-3.8, AG-3.16, AG-5.1, ED-1.3, and LU-2.2, Esparto Community Plan Policy E-LU.28, Capay Valley Area Plan Agriculture Policy 8, Clarksburg Area Community Plan Policy A2, and Dunnigan Community Plan Policy D-LU20).

Pursuant to California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) the state has defined medical and adult-use cannabis as agricultural products. Section 8-2.1404(E) of the proposed CLUO identifies cannabis cultivation and related activities as agricultural land uses.

This would be a **less-than-significant** impact under all the alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

3.3 AIR QUALITY AND ODORS

This section includes a discussion of existing air quality conditions, a summary of applicable air quality regulations, and an analysis of potential short-term and long-term air quality impacts (including odors) that could result from adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO.

Comments were received on the NOP pertaining to air quality and odor impacts from cannabis uses. The Yocha Dehe Wintun Nation, a tribal nation; concerned residents; and members of the public who attended the Scoping Meeting on September 13, 2019, noted concerns regarding the potential for odor emissions from cultivation. Yolo County Farm Bureau expressed concerns over dust emissions from travel on unpaved roads as well as odor impacts. These issues are considered below. The reader is referred to Appendix A for NOP comment letters.

3.3.1 Environmental Setting

The project area is located in the Sacramento Valley Air Basin (SVAB). The SVAB includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality and odor conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay Area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are often present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

Elevated levels of ozone typically occur May through October in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_X), which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient air quality standards.

The local meteorology of the project area is represented by measurements recorded at the Western Regional Climate Center Woodland 1 WNW station. The normal annual precipitation is approximately 18.5 inches. January temperatures range from a normal minimum of 37.6°F to a normal maximum of 54.1°F. July temperatures range from a normal minimum of 57.9°F to a normal maximum of 96.3°F (WRCC 2016). The prevailing wind direction is from the south southwest, as measured at the Vacaville Airport station (WRCC 2019).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the SVAB and their health effects are provided below. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. However, ozone, PM_{10}, and $PM_{2.5}$ are the criteria air pollutants of primary concern in this analysis due to their nonattainment status with respect to the applicable National Ambient Air Quality Standards (NAAQS) and/or California Ambient Air Quality Standards (CAAQS). The attainment status of criteria air pollutants with respect to the NAAQS and CAAQS in Yolo County are shown in Table 3.3-1. Monitoring data representative of ambient air concentrations in Yolo County are summarized in Table 3.3-2.

Table 3.3-1 Attainment Status Designations for Yolo County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Nonattainment (1-hour)	Nonattainment (1-hour)
	Nonattainment (8-hour)[1]	Nonattainment (8-hour)
	Nonattainment (8-hour)[2]	
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No state standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)	Attainment (1-Hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30-day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

[1] 1997 Standard.

[2] 2008 Standard.

Sources: YSAQMD 2016a; CARB 2015

Table 3.3-2 Summary of Annual Data on Ambient Air Quality (2015-2017)[1]

	2015	2016	2017
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.086/0.072	0.095/0.076	0.089/0.074
Number of days state standard exceeded (1-hr/8-hr)	0/4	1/4	0/2
Number of days national standard exceeded (8-hr)	3	4	2
Fine Particulate Matter ($PM_{2.5}$)			
Maximum concentration (24-hour µg/m^3)	29.4	16.4	60.1
Number of days national standard exceeded (24-hour measured[2])	0	0	12.3
Respirable Particulate Matter (PM_{10})			
Maximum concentration (µg/m^3)	69.4	68.7	130.8
Number of days state standard exceeded	12.2	12.2	18.4
Number of days national standard exceeded	0	0	0

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million

1. Measurements from the Woodland-Gibson Road station.

Source: CARB 2019

Ozone

Ground-level ozone is not emitted directly into the air but is created by chemical reactions between ROG and NO_X. This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant, because of its effects on people and the environment, and is the main ingredient in smog (EPA 2018).

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of permanent lung impairment (EPA 2018). Emissions of the ozone precursors ROG and NO_X have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2014).

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as nitrogen oxide (NO_X) and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2012).

Acute health effects of exposure to NO_X includes coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, or pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2018).

Particulate Matter

"Particulate matter" is the term used to describe a mixture of solid particles and liquid droplets found in the air (EPA 2018). Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, as well as particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2014). PM_{10} particles are often large or dark enough to see with the naked eye (EPA 2018). Fine particulate matter ($PM_{2.5}$) includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. $PM_{2.5}$ particles are so small that they can only be detected using an electron microscope (EPA 2018). PM_{10} emissions in the SVAB are dominated by emissions from area sources,

primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM_{10} are projected to remain relatively constant through 2035. Direct emissions of $PM_{2.5}$ have steadily declined in the SVAB between 2000 and 2010 and then are projected to increase very slightly through 2035. Emissions of $PM_{2.5}$ in the SVAB are primarily generated by the same sources as emissions of PM_{10} (CARB 2014).

Acute health effects of PM_{10} exposure include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, and premature death. Chronic health effects include alternations to the immune system and carcinogenesis (EPA 2018).

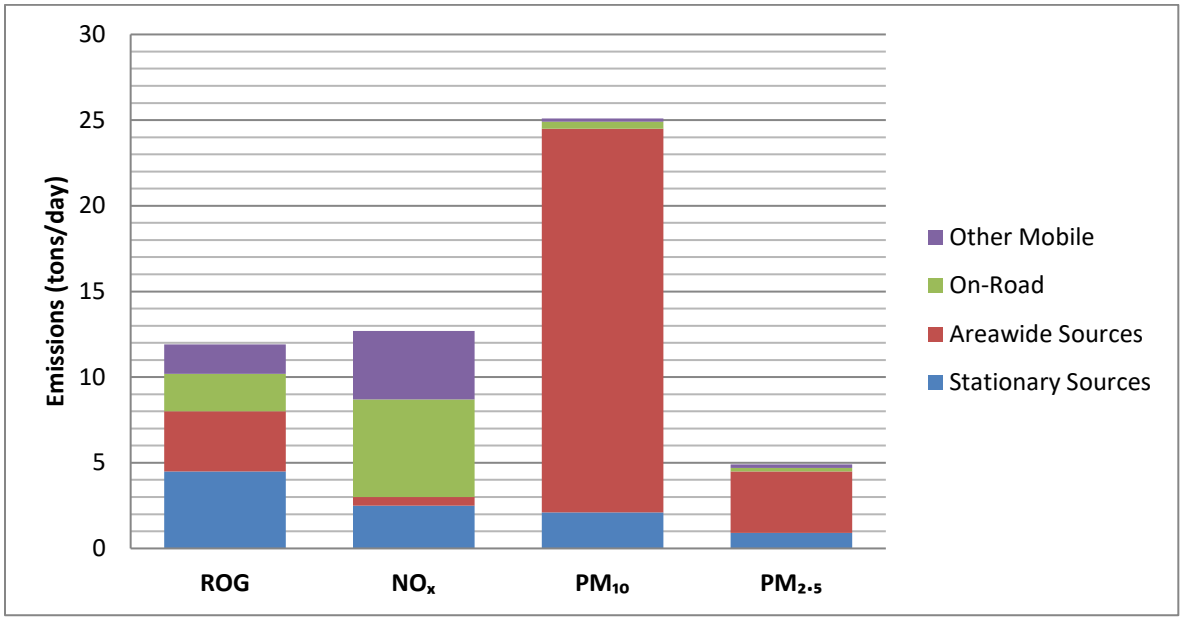
ATTAINMENT DESIGNATIONS AND MONITORING STATION DATA

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. There are two monitoring stations in Yolo County: Woodland-Gibson Road station and the UC Davis station. The Woodland-Gibson Road station was used for consideration in this EIR of all pollutants because it is most representative of air quality in unincorporated Yolo County. Table 3.3-2 summarizes the air quality data measured at monitoring stations near the project area during the last 3 years (2015–2017).

Both the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) use monitoring data to designate areas according to their attainment status for criteria air pollutants (attainment designations are summarized below in Table 3.3-1).

EMISSIONS INVENTORY

Exhibit 3.3-1 summarizes an estimated emissions inventory of criteria air pollutants projected for Yolo County for various source categories in 2015 based on the 2016 State Implementation Plan (SIP) Emissions Projection Data from CARB. According to the emissions inventory, mobile sources are the largest contributor to the estimated daily air pollutant levels of ROG and NO_x, accounting for approximately 33 percent and 76 percent of the total daily emissions, respectively. Area-wide source (i.e., sources that occur over a large area rather than at a point source [e.g., smokestack] or a mobile source [e.g., tailpipe]) account for approximately 89 percent and 73 percent of the County's PM_{10} and $PM_{2.5}$ emissions, respectively (CARB 2016a), due in part to the agricultural and semi-rural conditions in Yolo County. This is the most current emissions inventory available for Yolo County.



Source: CARB 2016a; data compiled by Ascent Environmental in 2018.

Exhibit 3.3-1 Yolo County 2015 Criteria Air Pollutant Emissions Inventory

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality*, the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being particulate matter (PM) exhaust from diesel engines (diesel PM) (CARB 2014:5-2 to 5-4). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated the average cancer risk associated with diesel PM concentrations in the SVAB to be 360 excess cancer cases per million people in the year 2000 (CARB 2010:5-83). Overall, statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2014:3-8) due to more stringent emissions standards and the introduction of cleaner burning diesel fuel.

NATURALLY OCCURRING ASBESTOS

Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally occurring asbestos, which was identified as a TAC by CARB in 1986, is located in many parts of California and is commonly associated with serpentine soils and rocks. According to the U.S. Geological Survey, Yolo County is not likely to contain naturally occurring asbestos (USGS 2011).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., increase in blood pressure, nausea, vomiting, and headache).

Environmental odor quantification is inherently challenging for several reasons including:

1. Odor usually results from a mixture of substances (as opposed to a single chemical or compound).
2. Odor is prone to subjectivity and opinion (not everyone agrees on what smells good or bad).
3. Odor is highly influenced by meteorological conditions such as seasonality, wind, humidity, temperature, cloud cover, precipitation, and time of day.

These challenges are important to recognize and overcome when establishing an odor verification protocol that is both practical and objective.

The strength of an odor can be objectively measured with an acceptable degree of precision using an instrument called an olfactometer. The Nasal Ranger device recently purchased by Yolo County is an example of a conventional field olfactometer. The field olfactometer provides odor data that is consistent from location to location by quantifying odor strength in the ambient air. Numerically, the strength of an odor is identified by how many clean air dilutions are required to no longer detect any given odor. The more clean air dilutions required, then the stronger the odor – and strong odors are a good indicator of potential nuisance.

An olfactometer works by controlling the proportion of "clean air" (odor-free or carbon filtered air) to "odorous" air to which an odor investigator is exposed. As an example, for a given odor, a numeric value of 60 dilutions of clean air using an olfactometer would objectively be much stronger and likely much more offensive than a value of 15 dilutions of clean area. In this example, an olfactometer value of 60 represents a stronger odor than a value of 15 because the tested air simply requires much more clean air to dilute the sample of odorous air to a level that is undetectable. These values are known as dilution-to-threshold Or "D/T" values.

While an olfactometer determines the strength of a given odor, it does not identify the character of the odor (i.e. what does the odor smell like?). Other observable characteristics such as the frequency, intensity, duration, and offensiveness of the odor are equally as important as measuring the strength. These parameters are noted alongside the numeric odor strength measurements from the olfactometer.

It is good practice to apply what is known as the "FIDOL" parameters to odor measurements. FIDOL is an acronym for the following characteristics or parameters:

*F**requency* – how often the odor impacts occur

*I**ntensity* – the relative odor strength (faint to overwhelming)

*D**uration* – the length of time for a given odor event

*O**ffensiveness* – the character or description of the odor

*L**ocation* – mapping impact and identifying other off-property contributing sources

As part of the odor verification process, the trained odor investigator addresses the FIDOL parameters on a standardized odor documentation field sheet. For consistency in qualifying the character of a specific odor, an odor wheel (see Exhibit 3.3-2) is commonly used to define the descriptors of possible scents and provide investigators a standard set list from which to choose. The numerical values depicted in the exhibit allow for shorthand recordkeeping of odor descriptors only and are not indicative of odor strength or offensiveness.

Reliable ambient odor measurement limits require trained odor investigators with tested sensitivity within an acceptable range for detecting odors, as defined by European Standard EN13725. Competent investigators are trained to understand the various characteristics and parameters of odor and how to document them, and also how to assess and document various externalities (such as topography and meteorology) that might have relevance to the particular odor condition.

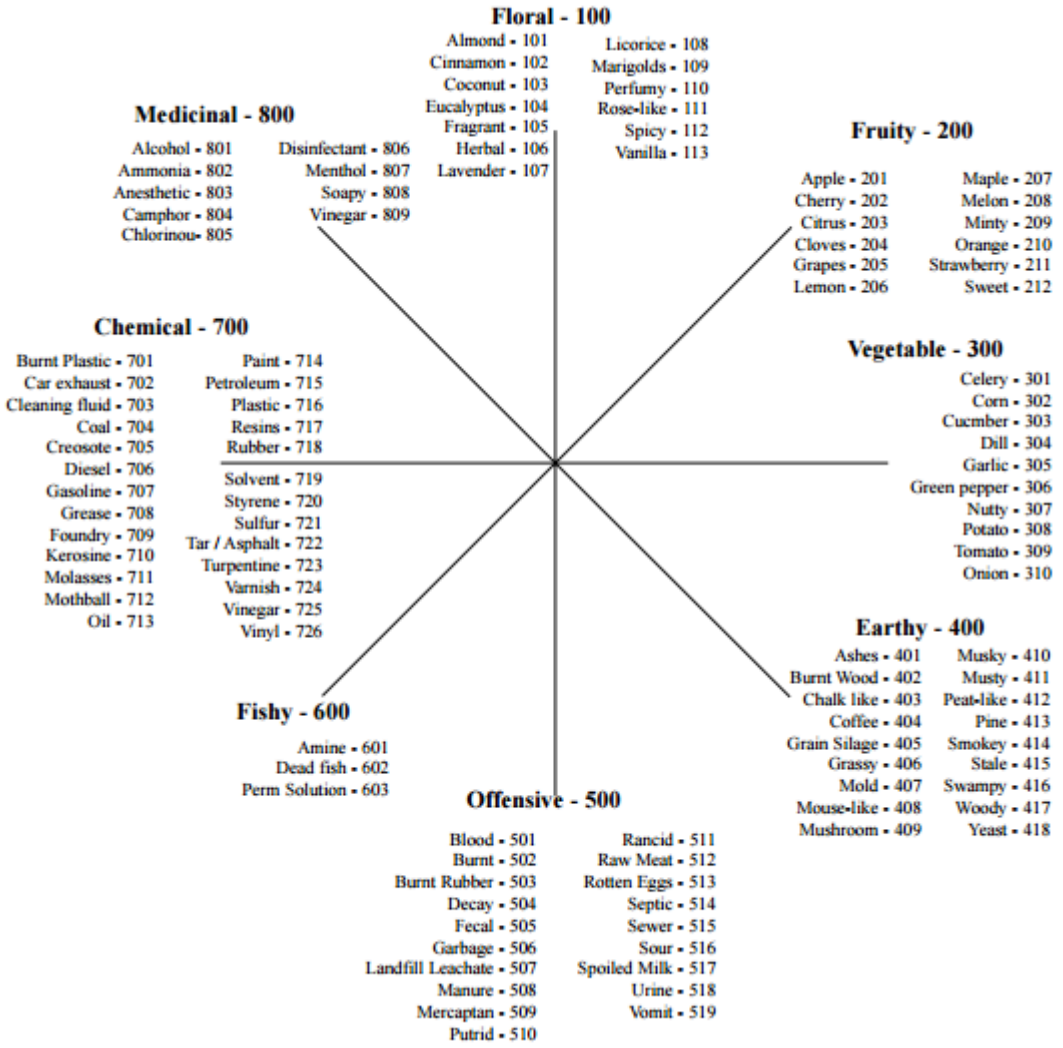


Exhibit 3.3-2 Odor Descriptor Wheel[1]

Cannabis Odor Research

The typical smell of cannabis originates from roughly 140 different terpenes. A terpene is a volatile, unsaturated hydrocarbon that is found in essential oils of plants, especially conifers and citrus trees. Some terpenes are identified explicitly in research (myrcene, pinene, limonene). The "skunk" odor is primarily volatile thiols[2] (i.e., commonly offensive odor that vaporizes easily). Cannabis contains alpha-linolenic acid which may break down under ultraviolet rays of sunlight into methyl and butyl thiols.

Some researchers define an "odor activity value" (OAV) which is the chemical compound concentration divided by the chemical compound odor detection threshold (which is a literature-based value). A higher OAV could mean a more significant odor. One shortcoming of the OAV is the quality of the odor detection thresholds may be low. Highly odorous compounds in low concentrations which may have more potent OAV are nonanal, decanol, o-cymene, and benzaldehyde. In other research findings, it is believed the majority of the odor in the flowers is linked to pinene, limonene, and terpinolene.

[1] Odor descriptor wheel obtained from St. Croix Sensory.
[2] Thiol is an organosulfur compound that can generate offensive odors.

Terpenes which are either commonly identified and/or thought to warrant further evaluation for odor impacts include: myrcene, pinene, limonene, b-caryophyllene, terpinolene, nonanal, decanol, o-cymene, and benzaldehyde. Utilizing published literature-based odor detection thresholds (where available) for these chemical compounds yields a range of 1 part per billion (ppb) to 3,500 ppb. Literature-based odor detection thresholds can vary widely (by orders of magnitude) for the same chemical compound.

Dispersion modeling has been conducted by other counties to determine distance that cannabis odor may be detected. This modeling indicated that specific cannabis compounds may be detectable at a distance of 2 miles or more depending on weather conditions (Kern County 2017:4.3-66 and 4.3-67).

Cannabis grown in enclosed, indoor environments (buildings and greenhouses) results in a concentration of odor-causing chemicals which can result in to the generation of significant odors within the internal air space. It has been reported that greenhouses can generate odor with strengths ranging from 30,000 to 50,000 odor units (COC, 2018). This implies that the untreated indoor air would need to be diluted up to 50,000 times with clean air to be reduced to levels which are no longer detectable to humans with normal odor sensitivity. While containment of cannabis in buildings is an effective means of addressing odors, unfiltered release of odors from vents or doors do generate concentrated odors into the surrounding areas that can create nuisances to off-site land uses and sensitive receptors.

Public Health/Nuisance Issues

In a review of recent scientific publications, there were no studies which evaluated the health effects associated with exposure to cannabis odors. An evidence brief prepared by Public Health Ontario (Public Health Ontario, Canada 2018) states that "most substances responsible for odors in the outdoor air are not present at levels that can cause long-term health effects. However, exposure to unpleasant odors may affect an individual's quality of life and sense of well-being." This statement was in context to odors in general and not specific to cannabis odors. The City of Denver prepared a Cannabis Environmental Best Management Practices document (City of Denver, Colorado 2018), which states that while "the rate of VOC [volatile organic compound] emissions from cannabis cultivation facilities is relatively unknown.... [T]hese VOCs from the cannabis industry typically do not pose a direct threat to human health." Although research is limited, it is generally agreed that concentrated cannabis odors do not create a public health concern for receptors. Odor issues are discussed in further detail in Section 3.3.3, Environmental Impacts and Mitigation Measures, below.

Examples of Odor Regulations in Other Jurisdictions

There are no numerical odor thresholds (such as a D/T or an intensity rating) established at the local level by an air district or at the state level in California. As shown in Table 3.3-3, there are other states that have established numerical thresholds for all odor types along with an established frequency and receptor location (e.g., property line, off property, sensitive receptor). Compliance with these numerical odor thresholds is determined off property with tools such as a field olfactometer, dynamic olfactometer (in an odor laboratory) or through odor dispersion modeling. The sense of smell, like vision and hearing, is logarithmic. The Nasal Ranger measures 2 D/T, 4 D/T, 7 D/T, 15 D/T, 30 D/T, and 60 D/T odor strength ratios, essentially doubling the amount of clean air added to the odorous air each test measurement, to reflect an increment of change that would be perceptible to the human nose.

Table 3.3-3 Ambient Air Odor Threshold Examples

Jurisdiction	Ambient Air Odor Threshold	Observed Frequency of Potential Violation	Observed Location	Regulatory Citation (cites to a relevant law, rule or ordinance)
Colorado[1]	7 D/T (residential/commercial) 15 D/T (all other areas) 127 D/T (violation level)	2 measurements in 1 hour separated by 15 minutes	Outside the property line	Regulation Number 2
Connecticut	7 D/T	3 samples or observations in 1 hour separated by 15 minutes	Ambient air (off-property)	Section 22a-174-23
Illinois	8 D/T (residential) 16 D/T (other land uses) 24 D/T (industrial property line)	2 out of 3 positive determinations where 2 observations are 15 minutes apart within 1 hour with 3 person team	On or adjacent to specified land use	Title 35, Part 245
Kentucky	7 D/T	At any time	Ambient air	401 KAR 53:010
Nevada	8 D/T	2 measurements in 1 hour separated by 15 minutes[2]	Places of occupancy	NAC 445B.22087
North Dakota	7 D/T	May not discharge at 7 D/T or higher	Property boundary for sources in City; residential/near public receptor for sources outside of City[3]	Chapter 33-15-16
Wyoming	7 D/T	2 measurements in 1 hour separated by at least 15 minutes	Odor producer property line	WDEQ Chapter 2 Section 11

[1] Colorado also has industry specific thresholds for swine, which are not summarized in the table above.

[2] Nevada requires investigation when 30% or more of sample of people are exposed to odor and believe it to be objectionable; sample must be at least 20 people or 75% of those exposed if sample is less than 20 people exposed.

[3] North Dakota has an additional provision for agricultural operations that have been in operation for more than 1 year and the business or residence making the complaint was built/established after the agricultural operation. There are different thresholds depending on whether the complainant is in the City or outside of the City. In this situation, for a complainant in the City, measurement must be taken within 100 ft of established residence rather than the property boundary of the agricultural operation, and the measurement may not be taken within 500 ft of the property boundary of the agricultural operation. See rule for additional provision for complainants located outside of the City.

Prepared by Trinity Consultants 2019

As shown above, many states are using 7 D/T as an odor nuisance threshold. Many states require multiple observations within an hour to establish a nuisance. However, some jurisdictions establish alternative thresholds or do not allow any odor in excess of 7 D/T (Kentucky and North Dakota). There is also some variability in where the odor must be observed or measured to constitute a nuisance (property line vs. receptor location). The 7 D/T standard is based on scientific publications on odor pollution control that have identified that odors above 7 D/T will often result in complaints (i.e., objectionable), with 15 D/T often described as a nuisance, and odors above 30 D/T described as a serious nuisance (i.e., nauseating) (McGinley 2000 and Huey et al. 1960).

The use of an olfactometer and D/T provides the strength of an odor. Examples of odor types that have been documented at the 7 D/T standard includes the following:

- Wastewater treatment plant site (on the site): smelled like a musty/musky odor
- Compost facility that accepts biosolids and food waste (across the street): smelled like manure septic odor
- Compost facility (adjacent to the site): smelled like an earthy/urine odor

- Agricultural area (adjacent to the field): smelled like a grassy odor (Wanger 2019)

Recently, the City of Denver updated its odor ordinance. The update focused on specific industry types, including cannabis (grows and cannabis-infused products). Businesses must develop and submit an Odor Control Plan (OCP) if they:

- fall within a regulated industry (together, cannabis grows and cannabis-infused products are one of the regulatory industry categories);
- have received five or more complaints from individuals in separate households/businesses within a 30-day period; or
- emit odorous contaminants that exceed state regulatory standards for odor intensity (7 D/T).

An OCP must include compliance monitoring obligations. If noncompliance is identified, it could lead to a citation. It is common to see the requirement for an OCP in municipality ordinances. Use of an OCP and/or establishment of other applicable best practices in addition to numerical limits, are common methods for regulating odor.

Cannabis Odor Complaints in Yolo County

As described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," there are 78 existing and eligible cannabis cultivation sites operating in the County. The Yolo County Cannabis Task Force investigates complaints regarding cannabis operations that include the verification of odor complaints. The process consists of the following:

- Complaint is logged through a geographic information system (automatically for e-complaints; by County staff for phone complaints).
- County staff contact the reporting party to discuss complaint with them and gather additional details.
- County staff attempt to verify odor complaint in the field.
- County staff investigate to determine if the odor could be coming from a personal or illegal grow.
- If an odor complaint is verified in the field, County staff sends email communication to the party it believes may have caused odor complaint. This communication requests correction of the odor nuisance.
- County staff may issue a Notice of Violation pursuant to Yolo County Code Section 5-20.11, requiring abatement of the odor nuisance within 72 hours.

The County has received 17 odor complaints that consist of multiple contacts between October 2017 and January 2019. The majority of these complaints were received during the summer and fall months when cannabis is ready for harvest. These complaints were associated with cultivation sites along the State Route (SR) 16 corridor west of Woodland and sites along SR 128 and Interstate 505 (I-505) south of SR 16. Weather conditions associated with these complaints generally consisted of calm weather conditions (light wind and temperatures ranging from 75 to 95°F).

SENSITIVE RECEPTORS

Sensitive receptors relative to air quality conditions are locations where human populations, especially children, seniors, and persons with poor health are found, and there is reasonable expectation of continuous human exposure according to the averaging period for ambient air quality standards. Sensitive receptors defined by the 2030 Countywide General Plan (General Plan) include residentially designated land uses, hospitals, schools, hotels and lodgings, and neighborhood parks (Yolo County 2009:CO-83). In general, these

sensitive receptors are concentrated in the incorporated cities and unincorporated communities in the County; however, scattered rural residences are also located throughout the undeveloped or rural lands. Rural residences located in agricultural designated land areas of the County are not considered sensitive receptors under the General Plan.

3.3.2 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

Criteria Air Pollutants

The CAA required EPA to establish NAAQS. As shown in Table 3.3-4, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10} and $PM_{2.5}$, and lead. The primary standards protect public health and the secondary standards protect public welfare. The CAA also required each state to prepare a SIP for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

EPA and the National Highway Traffic Safety Administration (NHTSA) regulate emissions from on-road vehicles. In 2012, EPA and NHTSA, issued final rules to further reduce emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon (77 FR 62630). Transportation plans, such as this, rely on steadily cleaner tailpipe emissions from motor vehicles to achieve federal clean air standards (e.g., Conformity). However, on April 2, 2018, EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

Further, though the U.S. Congress preempted states from issuing any standard relating to the control of emissions from new motor vehicles, an exception was made for California in recognition of California's policy leadership and its particular problems with smog caused by vehicles. Congress included a carve-out for California that is still enshrined in the CAA today. This special exemption allows California to issue its own vehicle emission standards if it seeks a federal preemption "waiver" from EPA. As long as California's vehicle emission standards protect public health and welfare at least as strictly as federal law and are necessary to meet compelling and extraordinary conditions, the law requires EPA to grant California's request for a preemption waiver. Each time California adopts new vehicle emission standards, the state applies to EPA for

a preemption waiver for those standards (e.g., over 100 have been approved). However, EPA is also proposing, in addition to the SAFE Rule but as a separate action, to revoke California's waiver that would allow the state to keep the 2021-2025 standards in place. The ultimate revocation of California's waiver and the outcome of any related lawsuits (and how such could delay or affects its implementation) is unknown at this time alongside on how future motor vehicle emissions could be affected. However, if less strict standards for model years 2021 through 2026 were actually implemented, emissions could increase.

Table 3.3-4 Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	–
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	–	–
	3-hour	–	–	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	–	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	–	35 µg/m^3	Same as primary standard
Lead[f]	Calendar quarter	–	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	–	–
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride[f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million (by volume).

[a] California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[c] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016b

Toxic Air Contaminants/Hazardous Air Pollutants

TACs (also known as hazardous air pollutants (HAPs) for federal purposes), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of exposure can be determined and for which ambient standards have been established (Table 3.3-4). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, CARB regulates HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for toxics to limit emissions.

STATE

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish CAAQS (Table 3.3-4).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides air districts with the authority to regulate indirect emission sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (AB 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588, Chapter 1252, Statutes of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to CARB's list of TACs.

After a TAC is identified, CARB adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 (Chapter 136, Statutes of 2017) aims to help protect air quality and public health in communities around industries subject to the state's cap-and-trade program for GHG emissions, AB 617 imposes a new state-mandated local program to address nonvehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. The law requires CARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This law addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

California Code of Regulations

The following requirements are included in the CalCannabis regulations, CCR, Title 3, Division 8, Chapter 1 and pertain to cultivation sites.

Section 8306. Generator Requirements

(a) For the purposes of this section, "generator" is defined as a stationary or portable compression ignition engine pursuant to title 17, division 3, chapter 1, subchapter 7.5, section 93115.4 of the California Code of Regulations.

(b) Licensees using generators rated at 50 horsepower and greater shall demonstrate compliance with either, as applicable, the Airborne Toxic Control Measure for stationary engines pursuant to title 17, division 3, chapter 1, subchapter 7.5, sections 93115 through 93115.15 of the California Code of Regulations, or the Airborne Toxic Control Measure for portable engines pursuant to title 17, division 3, chapter 1, subchapter 7.5, sections 93116 through 93116.5 of the California Code of Regulations. Compliance shall be demonstrated by providing a copy of one of the following to the department upon request:

    (1) For portable engines, a Portable Equipment Registration Certificate provided by the California Air Resources Board; or

    (2) For portable or stationary engines, a Permit to Operate, or other proof of engine registration, obtained from the Local Air District with jurisdiction over the licensed premises.

(c) Licensees using generators rated below 50 horsepower shall comply with the following by 2023:

    (1) Either (A) or (B):

(A) Meet the "emergency definition for portable engines in title 17, division 3, chapter 1, subchapter 7.5, sections 93116.2(a)(12) of the California Code of Regulations, or the "emergency use" definition for stationary engines in title 17, division 3, chapter 1, subchapter 7.5, section 93115.4(a)(30); or

(B) Operate 80 hours or less in a calendar year; and

(2) Either (A) or (B):

(A) Meet Tier 3 with Level 3 diesel particulate filter requirements pursuant to title 13, division 3, chapter 14, sections 2700 through 2711 of the California Code of Regulations;

(B) Meet Tier 4, or current engines requirements if more stringent, pursuant to title 40, chapter 1, subchapter U, part 1039, subpart B, section 1039.101 of the Code of Federal Regulations.

(d) All generators shall be equipped with non-resettable hour-meters. If a generator does not come equipped with a non-resettable hour-meter an after-market non-resettable hour-meter shall be installed.

LOCAL

Yolo-Solano Air Quality Management District

The Yolo-Solano Air Quality Management District (YSAQMD) attains and maintains air quality conditions in Yolo and Solano Counties through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of YSAQMD includes the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. YSAQMD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the CAA, CAAA, and CCAA.

All projects are subject to adopted YSAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the project may include but are not limited to the following (YSAQMD 2016a):

- **Rule R2-3: Ringelmann Chart.** This rule prohibits stationary diesel-powered equipment from generating visible emissions that would exceed the rule's visibility threshold. This would apply to diesel-powered off-road equipment or generators used at commercial cannabis sites.

- **Rule R2-5: Nuisance.** This rule prohibits any source from generating air contaminants or other materials that would cause injury, detriment, nuisance, or annoyance to the public; endanger the comfort, repose, health, or safety of the public; or damage businesses or property. This would apply to commercial noncultivation cannabis sites such as manufacturing uses.

- **Rule R2-6: Additional Exemption**. The provisions of Rule 2.5. do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowl, animals, or bees.

- **Rule R2-11: Particulate Matter Concentration.** This rule prohibits any source that would emit dust, fumes, or total suspended particulate matter from generated emissions that would exceed the rule's established emission concentration limit. This would apply to diesel-powered off-road equipment or generators used at commercial cannabis cultivation sites.

- **Rule R2-14: Architectural Coatings.** This rule establishes volatile organic compound (VOC) content limits for all architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured within YSAQMD's jurisdiction. This would apply to all buildings at commercial cannabis sites.

- **Rule R2-16: Fuel Burning Heat or Power Generators.** This rule prohibits operation of non-mobile fuel burning equipment, such as boilers, generators, and furnaces, that exceed 200 pounds (lb) per hour of sulfur compounds, 140 lb per hour of nitrous oxides (NO_X), or 40 lb per hour of PM emissions from exhaust. This rule exempts emergency generators. This would apply to generators used at commercial cultivation cannabis sites.

- **Rule R3-1: General Permit Requirements.** This rule establishes permitting processes (i.e., Authority to Construct and Permit to Operate) to review new and modified sources of air pollution. This would apply to off-road equipment used at commercial cannabis sites.

- **Rule R9-9: Asbestos.** This rule limits the emission of asbestos to the atmosphere and requires appropriate work practice standards and waste disposal procedure, applicable to all non-exempt renovations or demolitions. This would apply to relocated commercial cannabis sites or sites renovating existing buildings.

YSAQMD's CEQA Handbook also provides a list of feasible mitigation measures to reduce fugitive dust PM_{10} emissions from construction activities that is required by all projects (YSAQMD 2007:27). This list includes the following:

- Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.

- Haul trucks shall maintain at least 2 feet of freeboard.

- Cover all trucks hauling dirt, sand, or loose materials.

- Apply nontoxic 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 4 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 woodchips or mulch, or

- Treat accesses to a distance of 100 feet from the paved road with a 6-inch layer of gravel.

Criteria Air Pollutants

The CCAA requires districts to submit air quality plans for areas that do not meet state standards for ozone, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$. YSAQMD has attained all standards with the exception of ozone and PM (YSAQMD 2016b). The CCAA does not currently require attainment plans for PM. For the attainment and maintenance of ozone, in July 2016, YSAQMD adopted its 2015 Triennial Plan Update which examined air quality conditions for 2012–2014 and documents efforts made by YSAQMD to improve air quality (YSAQMD 2016c).

In addition, as a part of the Sacramento federal ozone nonattainment area, YSAQMD works with the Sacramento Metropolitan Air Quality Management District to develop a regional air quality management plan under CAA requirements. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by CARB on November 16, 2017. The previous 2013 Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by EPA for the 1997 8-Hour Ozone Standard. EPA has not released notice of approval and promulgation of the 2017 SIP (CARB 2017).

Toxic Air Contaminants

At the local level, air pollution control or management districts may adopt and enforce CARB's control measures. Under YSAQMD Rule R3-1 ("General Permit Requirements"), Rule R3-4 ("New Source Review"), and Rule R3-8 ("Federal Operating Permits"), all sources that may possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards (see Rule R3-4 above) and air-toxics control measures. YSAQMD limits emissions and public exposure to TACs through many programs. YSAQMD prioritizes the permitting of TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors and land uses.

Sources that require a permit are analyzed by YSAQMD (e.g., health risk assessment) based on their potential to emit toxics. If it is determined that the project will emit toxics in excess of YSAQMD's threshold of significance for TACs (see Section 3.3.3, below), sources will have to implement BACT for TACs to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after BACT has been implemented, YSAQMD will deny the permit required by the source. This helps to apply new technology when retrofitting with respect to TACs. Although YSAQMD regulates sources that generate TACs, it does not regulate land uses that may be sited in locations exposed to TACs. The decision on whether to approve projects in TAC-exposed locations is typically the responsibility of the lead agency charged with determining whether to approve a project.

Yolo County

Yolo County 2030 Countywide General Plan

The General Plan includes the following air quality policies that are applicable to the project:

- **Policy CC-4.9:** Encourage construction and other heavy equipment vehicles (e.g., mining, agriculture, etc.) to use retrofit control devices.

- **Policy CC-**4.11: Site specific information shall be required for each application, subject to site conditions and available technical information, as determined by the County lead department, in order to enable informed decision-making and ensure consistency with the General Plan and with the assumptions of the General Plan EIR. Technical information and surveys requested may include, but not be limited to, the following: air quality and/or greenhouse gas emissions calculations, agricultural resource assessment/agricultural and evaluation and site assessment (LESA), biological resources assessment, cultural resources assessment, fiscal impact analysis, flood risk analysis, hydrology and water quality analysis, geotechnical/soils study, land use compatibility analysis, noise analysis, Phase One environmental site assessment, sewer capacity and service analysis, storm drainage capacity and service analysis, title report, traffic and circulation study, visual simulation and lighting study, and water supply assessment.

  When a technical study is required, it must cover the entire acreage upon which development is being proposed including any off-site improvements (e.g. wells; pumps; force mains; new roads; dirt borrow sites; etc.) that may be necessary. Technical studies must meet CEQA standards and the standards in the applicable industry. As necessary, the technical studies shall include recommendations that are to be implemented as part of the project.

- **Policy CO-6.1:** Improve air quality through land use planning decisions.

- **Action CO-A105:** For discretionary permits, require agricultural Best Management Practices regarding odor control, stormwater drainage, and fugitive dust control where appropriate.

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

3.3.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis below evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts to air quality. This program-level analysis is based upon current air quality data provided by CARB as described in Section 3.3-1, "Environmental Setting," and emissions modeling tools available from the California Air Pollution Control Officers Association. The design of site-specific cannabis projects is not known at this time, but this analysis uses the extent and general locations of future cannabis uses assumed under each of the five alternatives based on Table 2-4, Table 2-5, and Exhibits 2-4 through 2-8, which are provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," Section 3.0, "Approach to the Environmental Analysis," and Appendix D to provide an assessment and comparison of reasonably foreseeable outcomes from different regulatory scenarios.

Construction Emissions

Permitted commercial cannabis cultivation and noncultivation operations could result in an increase in emissions from short-term construction-related activities. Construction activities that may result in air quality-related impacts are assumed for each alternative to take place within the activity footprint of cannabis cultivation sites and noncultivation sites as described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives" (see Table 2-4) and Appendix D. Details about the extent of site relocation under each alternative due to compliance with zoning and buffer standards under the CLUO is included in Appendix D. The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions of criteria air pollutants and precursors associated with the construction and operation of the types and sizes of indoor, outdoor, mixed-light, and noncultivation operations that could be allowed under the CLUO. This modeling is based on the assumed size of each license type, as well as climatic conditions in the County. It was assumed that all permitted license types would be under construction for 6 months. Construction activities would likely require forklifts, graders, rubber-tired dozers, backhoes, welders, paving equipment, and off-road haul trucks. For details about construction assumptions used in the modeling, refer to Appendix E.

Construction of commercial cannabis uses under each alternative were analyzed individually by license type using YSAQMD's construction-related thresholds for development projects. Construction of all commercial cannabis uses that could be permitted under each alternative were analyzed collectively and evaluated for consistency with applicable air quality plans, as recommended by YSAQMD for plan-level documents.

Operational Emissions

Operation of cannabis uses were assumed to be contained within the identified activity footprint for cultivation and noncultivation sites, which can be found in Appendix D. CalEEMod was also used to estimate on-site operational emissions for cultivation and noncultivation sites, including emissions generated by maintenance activity, fertilizer application, and paint for paved parking lots. The application of paint for parking lots would result in off-gassing of ROG emissions from the painting of stripes, handicap symbols, directional arrows, and car space descriptions. Paved parking lots that would include painting were assumed for only noncultivation sites. CalEEMod default energy consumption rates were adjusted to account for energy efficiency improvements from the 2019 California Energy Code, which will result in a 30

percent reduction in energy consumption compared with the 2016 California Energy Code that is included in CalEEMod. Off-road equipment includes the use of a forklift for noncultivation sites, and the use of a utility vehicle for cultivation sites. Back-up diesel generators were also assumed to be used at mixed-light and indoor cultivation sites. These auxiliary uses were all modeled using CalEEMod. Refer to Appendix E for modeling assumptions and calculations. Operational emissions were estimated for each license type that would be permitted under the CLUO and it was assumed that these sites could be fully operational by 2022.

Operation of commercial cannabis uses under each alternative were analyzed individually by license type using YSAQMD's operational thresholds for development projects. Operation of all commercial cannabis uses that could be permitted under each alternative were analyzed collectively and evaluated for consistency with applicable air quality plans, as recommended by YSAQMD for plan-level documents.

As discussed in Section 3.14, "Transportation and Circulation," the project is not anticipated to generate notable changes in vehicle miles traveled as compared to existing conditions. Thus, mobile source emissions are not included in this analysis.

As described in Section 3.3.1, "Environmental Setting," odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Odor is inherently complex because it is often caused by a mixture of chemical substances and has subjective components associated with human perception by the olfactory senses. Thus, the impact analysis qualitatively evaluates the potential of cannabis uses to create odors that create a public nuisance or adversely affect nearby residents or businesses using existing odor complaint data and research on odor control. The analysis also evaluates the effectiveness of Sections 8-21.1408(CC) and 8-2.1408(DD) of the CLUO to address odor issues.

Specific requirements of existing laws and regulations described in the regulatory setting as well as the proposed CLUO (see Appendix C) were assessed for their ability to avoid or reduce emissions of criteria air pollutants and precursors and odors.

Chapter 4, "Cumulative Impact and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

YSAQMD has developed guidance for use by lead agencies when preparing CEQA documents (YSAQMD 2007). YSAQMD has adopted CEQA thresholds of significance for evaluating impacts to air quality. YSAQMD has both project-level and plan-level thresholds of significance. Project-level thresholds are intended to be used for individual developments while plan-level thresholds are intended to be used for general plan amendments, redevelopment plans, specific area plans, annexations, and similar planning activities (YSAQMD 2007:7). This project consists of individual commercial cannabis uses that could be permitted under an adopted ordinance. Because of this, individual licenses and the total licenses allowed under the ordinance are evaluated using YSAQMD's thresholds for project and plan level analyses, respectively.

CEQA-related air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health.

In consideration of new and more stringent NAAQS and CAAQS adopted since 2000, YSAQMD identified numerical thresholds for project-generated emissions of criteria air pollutants and precursors that would determine whether a project's discrete emissions would result in a cumulative, regional contribution (i.e., significant) to the baseline nonattainment status of the YSAQMD. YSAQMD's quantitative thresholds of significance for project-level CEQA evaluation that may be used to determine the extent to which a project's

emissions of criteria air pollutants and precursors would contribute to regional degradation of ambient air quality within the SVAB.

Using federal and state guidance pertaining to TACs/HAPs, YSAQMD developed cancer risk and noncancer health hazard thresholds for TAC exposure. Unlike criteria air pollutants, there is no known safe concentration levels of TACs. Moreover, TAC emissions contribute to the deterioration of localized air quality due to the dispersion characteristics of TACs, emissions do not cause regional-scale air quality impacts. The YSAQMD thresholds are designed to ensure that a source of TACs does not contribute to a localized, significant impact to existing or new receptors.

As such, for the purpose of this analysis, the following thresholds of significance are used to determine if project-generated emissions would produce a significant localized and/or regional air quality impact such that human health would be adversely affected. Additionally, the cumulative effect of all cannabis uses under each alternative that were assumed for analysis purposes are evaluated using the plan-level thresholds recommended by YSAQMD.

Per Appendix G of the CEQA Guidelines and YSAQMD recommendations, a project would have a significant impact on air quality if it would (YSAQMD 2007):

- conflict with or obstruct implementation of the applicable air quality plan from the cumulative development of all cannabis uses;
- cause construction-generated criteria air pollutant or precursor emissions to exceed the YSAQMD-recommended thresholds of 10 tons per year for ROG and NO_X, and 80 pounds per day for PM_{10} for an individual license;
- result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the YSAQMD-recommended thresholds of 10 tons per year for ROG and NO_X, 80 lb per day for PM_{10}, and violation of a state ambient air quality standard for CO for an individual license; or
- result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

These thresholds also address the Mandatory Findings of Significance under State CEQA Guidelines Section 15065(a)(4) on whether the environmental effects of the project will cause adverse effect on human beings, either directly or indirectly. As described in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO would not result in the significant impacts related to the creation of local carbon monoxide concentrations from mobile sources or expose sensitive receptors to toxic air contaminant emissions. Therefore, these impact issue areas are not further evaluated.

IMPACT ANALYSIS

Impact AQ-1: Conflict with or Obstruct Implementation of Policies and Regulations Related to the Air Quality

The CLUO incorporates dust control, odor, and generator emission standards that are consistent with YSAQMD and state regulations, General Plan policies, and YSAQMD's 2016 Triennial Assessment and Plan Update. This impact would be **less than significant** for all alternatives.

The following CLUO sections are consistent with nuisance provisions of YSAQMD Rule 2.5. These CLUO provisions are also consistent with General Plan Policies CC-4.9, CO-6.1, and CO-6.6 that identify measures for reducing air pollutant emissions.

- Section 8-2.1408(L) Dust Control: Permittees shall comply with the requirements of the Yolo-Solano Air Quality Management District related to control of dust. Cultivation sites shall ensure dust control in a manner consistent with standard agricultural practices.

- Section 8-2.1408(T) Generators: Use of generators (of any fuel type) is allowed for CDFA licensees. Use of generators for other use types is prohibited, except for temporary use in the event of a power outage or emergency. CDFA licensees must demonstrate compliance with the requirements of the Yolo-Solano Air Quality Management District, and Section 8306, Generator Requirements, of the CDFA Regulations.

- Section 8-2.1408(CC) Nuisance: Cannabis uses shall not create a public nuisance or adversely affect the health or safety of nearby residents or businesses by, among other things, creating dust, light, glare, heat, noise, noxious gases, odor, smoke, traffic, vibration, unsafe conditions, or other impacts, in excess of allowable thresholds, or be hazardous due to the use or storage of materials, processes, products, runoff, unauthorized releases or illegal disposal of wastes.

    1. Subject to subsection 7 below, it is unlawful and it shall be a public nuisance to cause or permit persistent cannabis odors. A persistent cannabis odor is one which is verified by persons of normal odor sensitivity (as defined by European Standard EN 13725) to exist for three consecutive days within any two-week period at a maximum dilution-to-threshold (D/T ratio of seven parts clean or filtered air to one-part filtered odorous air, 7:1), measured at the property line of the site, as a result of investigations resulting from subsection 2, below.

    2. Subject to subsection 7 below, for the purposes of this subsection, cannabis odors shall be deemed to be persistent if the County enforcement officer (i) independently determines that the cannabis odor violates the standards of subsection 1 above, and/or (ii) the County enforcement officer receives three or more complaints of cannabis odor representing separate residences or places of occupied business, of a cannabis odor emanating from the subject property for three consecutive days within any two-week period, that the enforcement officer determines violates the standards of subsection 1 above.

    3. Subject to subsection 7 below, nothing in this subsection shall be deemed to require three verified complaints before the County may initiate enforcement action. The County may determine that a public nuisance exists under this subsection if less than three verified complaints are received or if no complaints are received but County officials or employees observe cannabis odor conditions that violate this subsection.

    4. Failure to effectively resolve a public nuisance shall result in enforcement action, up to and including additional conditions, suspension and revocation of the County Cannabis Use Permit and/or County Cannabis License pursuant to the process below.

    5. The County applies a three-level citation system to cannabis nuisance violations. Depending on the severity, frequency, or the failure to resolve the cause of the violation, the County enforcement officer may issue an alert, a warning citation, or a Notice of Violation. The alert shall identify the problem, identify relevant code sections, discuss the abatement process, and identify corrective action. The warning citation shall identify the problem, document the history, and mandate specific abatement actions including submittal of a plan and schedule to remedy the problem. A Notice of Violation shall follow the procedures set forth in Section 5-20.10 (*this citation will be revised one the licensing ordinance is moved to Chapter 4 of Title 20*).

    6. Subject to subsection 7 below, if at any time during the citation system identified above in subsection 5, the County enforcement officer determines that the conditions at the site are deleterious to the health, safety, or general welfare of any one or more surrounding properties, or that the permittee and/or landowner is not acting in good faith or in a manner sufficient to timely

address the complaint, the County enforcement officer may bypass the citation process and take immediate steps to address the violation, including by abatement or any other lawful means.

7. Permittees operating in compliance with this article, in particular Section 8-2.1408(DD)(1), Odor Control, the terms of their Cannabis Use Permit, and other applicable laws shall be presumptively assumed to not cause or contribute to a public nuisance.

8. The County may elect not to investigate any complaint due to resource limitations or other matters. In addition, the County may elect not to investigate complaints submitted by complainants that submit more than three unsubstantiated complaints within a one-year period.

- Section 8-2.1408(DD) Odor Control:

1. The allowable threshold for cannabis odor shall be defined as a maximum dilution-to-threshold (D/T) ratio of seven parts clean or filtered air to one-part odorous air (7:1) measured at the property line of the site. Cannabis odor at or below this threshold shall be considered acceptable and shall not be considered a nuisance. Indoor and mixed light uses must install and maintain the following minimum equipment: an exhaust air filtration system with odor control that effectively minimizes internal odors from being emitted externally; an air system that creates negative air pressure between the facilities interior and exterior so that odors outside of the facility will not exceed the maximum dilution-to-threshold (allowable threshold), as defined herein; or other odor control system which effectively minimizes odor to a level compliant with the allowable threshold.

2. Applicants shall submit the following information: a. Identification and description of cannabis odor emitting activities and nature and characteristics of emissions. b. Description of procedures and engineering controls for reducing/controlling odors. c. Certification by a Professional Engineer or Qualified Odor Professional that the procedures and engineering controls proposed to control cannabis odors are consistent with accepted/available industry-specific best control technologies and methods designed to abate odor and will be effective in abating cannabis odors to the maximum dilution-to-threshold (allowable threshold), as defined herein, measured at the property line of the site. This shall be submitted in the form of an Odor Control Plan, subject to regular monitoring and reporting.

3. Odor control for outdoor activities may include different plant strains, smaller grow areas, relocation of outdoor activities indoors or in a mixed light facility, use of site design or other technology, odor easements over neighboring property, and/or other methods proven to be effective and accepted by the County.

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. Architectural coatings are the only source of ozone precursors associated with construction. All architectural coatings applied to cannabis sites would be required to comply with YSAQMD regulations for VOC content. There is no anticipated graphic art printing associated with cannabis sites, nor are process boilers anticipated to be used at cultivation nor noncultivation sites. Thus, the project would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions. Because the CLUO would not conflict with or obstruct implementation of policies and regulations related to air quality and odor, this impact, would be **less than significant** for all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AQ-2: Generate Construction-Related Emissions of Criteria Pollutants and Precursors That Exceed YSAQMD-Recommended Thresholds

Construction-generated emissions associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not exceed YSAQMD-recommended annual emissions of ROG and NO_X and maximum daily emissions of PM_{10} for individual permitted cannabis uses. Construction of each new site permitted under the CLUO would not contribute to an existing air quality violation and would not expose sensitive receptors to substantial pollutant concentrations. Construction of all sites permitted under the CLUO would be consistent with applicable air quality plans. This impact would be **less than significant** for all alternatives.

Section 8-2.1408(V) of the CLUO requires a County Grading Permit prior to construction activities for cannabis sites that require soil erosion control, and Section 8.2-1408(L) of the CLUO requires compliance with YSAQMD's dust mitigation measures. Additionally, these measures would reduce construction emissions from individual cannabis sites permitted under the CLUO. YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. Architectural coatings are the only source of ozone precursors associated with construction. All architectural coatings applied to cannabis sites would be required to comply with YSAQMD regulations for VOC content. Thus, the project would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Construction of individual commercial cultivation and noncultivation sites would require minimal earthwork, such as grading and clearing, and use of heavy-duty off-road equipment that would generate exhaust emissions and fugitive dust. Generally, the intensity of construction activity for cultivation sites would require clearing and grading of the site. It is assumed that approximately half of new cultivation sites would require the construction of greenhouses and other related buildings, while the other half would use pre-existing structures on the sites (see Section 3.0, "Approach to the Environmental Analysis," and Appendix D). Construction of individual noncultivation sites could involve the clearing of vegetation, grading, or other earth disturbance activities to establish an activity footprint; building construction; and paving of the parking lot. Building sizes could vary based on license type and are assumed to range from 1,000 square feet (sq. ft.) to 140,000 sq. ft. for both cultivation and noncultivation sites.

The construction of new individual cultivation and noncultivation sites would last approximately 6 months at each site. Emissions of fugitive PM_{10} and $PM_{2.5}$ dust would primarily be generated by ground-disturbance during site preparation and grading and would vary as a function of such parameters as travel on unpaved roads, soil silt content, soil moisture, wind speed, and the size of the disturbance area. PM_{10} and $PM_{2.5}$ would also be emitted in vehicle and equipment exhaust.

Construction of new cannabis uses would generate exhaust emissions and fugitive dust. Construction emission impacts of each alternative is evaluated below. Emissions of criteria air pollutants and ozone precursors are shown by individual cannabis use type in Table 3.3-5. Note that the columns in Table 3.3-5 are not additive; rather, each row in the table represents construction associated with a specific cannabis use site on a particular site. Refer to Appendix E for detailed modeling input parameters and results.

Table 3.3-5 Construction-Generated Emissions of Criteria Air Pollutants and Precursors for Each Cannabis Use Type

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	0.4	0.7	7	4
Mixed-Light	0.9	0.9	9	4
Indoor	0.4	0.7	7	5
Noncultivation				

Table 3.3-5 Construction-Generated Emissions of Criteria Air Pollutants and Precursors for Each Cannabis Use Type

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Nursery	1.1	1.1	21	12
Processing	0.1	0.4	1	1
Manufacturing	0.1	0.3	1	1
Testing	0.1	0.5	1	1
Distribution	<0.1	0.3	1	1
Retail	0.1	0.3	1	1
Microbusiness	<0.1	0.3	1	1
YSAQMD Thresholds of Significance	**10**	**10**	**80**	**N/A**
Exceeds Threshold?	**No**	**No**	**No**	**N/A**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; YSAQMD = Yolo-Solano Air Quality Management District; N/A = not applicable.

Source: Modeling conducted by Ascent Environmental in 2019

As shown in Table 3.3-5, construction of relocated individual cultivation sites and new cannabis sites (cultivation and noncultivation uses) would not generate annual levels of ROG and NO_X and daily levels of PM_{10} that exceed applicable YSAQMD emission thresholds for a development project. Construction activities resulting from the project would not contribute substantially to Yolo County's nonattainment status for ozone and PM_{10} and would not result in an increase in the potential for adverse health impacts to occur from exposure to ozone and PM_{10}.

The addition of NO_X, which is a precursor to ozone, could result in an increase in ambient concentrations of ozone in Yolo County and, moreover, increase the likelihood that ambient concentrations exceed the CAAQS and NAAQS. As summarized in "Environmental Setting," above, human exposure to ozone may cause acute and chronic health impacts including coughing, pulmonary distress, lung inflammation, shortness of breath, and permanent lung impairment. YSAQMD's project-level thresholds were developed to meet the CAAQS and NAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of such parcels. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, minimal criteria air pollutant and precursor emissions would be generated that would not exceed YSAQMD thresholds.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

While most of the existing licensed commercial cannabis cultivation operations would remain in their current locations, nine of the existing sites are assumed to be required to relocate under the CLUO zoning standards. No other construction activities are assumed to occur under this alternative. The relocated sites are assumed to either construct new buildings and infrastructure or occupy existing agricultural buildings and facilities (see Section 3.0, "Environmental Analysis Approach," and Appendix D). Construction emissions associated with relocated sites were quantified and are shown in Table 3.3-5 by cultivation type for an individual site and would not exceed applicable YSAQMD emission thresholds. Individual site construction would be required to comply with Sections 8-2.1408(L) and (V) of the CLUO, as well as YSAQMD Best Management Practices, which would further reduce construction emissions. Construction assumed under Alternative 1 could generate total of 12.6 tons per year of ROG, 15.0 tons per year of NO_x, 141 lbs per day of

PM_{10}, and 74 lbs per day of $PM_{2.5}$ if all constructed at the same time period. These amounts would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Under Alternative 2, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 52 new noncultivation uses of which up to 47 would be vertically integrated and constructed on single parcels (see Table 2-4 and Appendix D). Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning and buffering standards under the CLUO. As described in Section 3.0, "Approach to the Environmental Analysis," and Appendix D, relocated sites would either construct new buildings and infrastructure or occupy existing agricultural buildings and facilities.

As shown in Table 3.3-5, construction of new individual sites and relocated cultivation sites assumed for analysis purposes would not generate annual levels of ROG and NO_X and daily levels of PM_{10} that exceed applicable YSAQMD emission thresholds. Individual site construction would be required to comply with Sections 8-2.1408(L) and (V) of the CLUO, as well as YSAQMD Best Management Practices, which would further reduce construction emissions. Construction of all cannabis uses that are assumed to be constructed in a single year under Alternative 2 could generate total of 30.9 tons per year of ROG, 54.6 tons per year of NO_x, 462 lbs per day of PM_{10}, and 263 lbs per day of $PM_{2.5}$. These would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

For these reasons, this impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Under Alternative 3, it was assumed for analysis purposes that construction of all new individual cannabis uses would occur over 2 years (2021 and 2022) because of the extent of new cannabis uses assumed (see Section 3.0, "Environmental Analysis Approach," and Appendix D). This alternative is assumed to result in the construction of 82 new cultivation sites and a total of 104 new noncultivation uses of which up to 94 would be vertically integrated and constructed on single parcels (see Table 2-4 and Appendix D). Additionally, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning standards. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural buildings and facilities (Appendix D). As shown in Table 3.3-5, construction of new individual sites and relocated cultivation sites assumed for analysis purposes would not generate annual levels of ROG and NO_X and daily levels of PM_{10} that exceed applicable YSAQMD emission thresholds. Individual site construction would be required to comply with Sections 8-2.1408(L) and (V) of the CLUO, as well as YSAQMD Best Management Practices, which would further reduce construction emissions. Highest construction emissions assumed under Alternative 3 could generate total of 47.9 tons per year of ROG, 83.5 tons per year of NO_x, 714 lbs per day of PM_{10}, and 406 lbs per day of $PM_{2.5}$. These would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

For these reasons, this impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Under Alternative 4, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning standards. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities. It was also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of 2 new mixed-light or indoor cultivation sites and a total of 52 new noncultivation uses of which up to 47 would be vertically integrated and constructed on single parcels. Refer to Section 3.0, "Approach to the Environmental Analysis," and

Appendix D for detailed descriptions of the construction assumptions for cannabis uses. As shown in Table 3.3-5, construction of new individual sites and relocated cultivation sites assumed for analysis purposes would not generate annual levels of ROG and NO_X and daily levels of PM_{10} that exceed applicable YSAQMD emission thresholds. Individual site construction would be required to comply with Sections 8-2.1408(L) and (V) of the CLUO, as well as YSAQMD Best Management Practices, which would further reduce construction emissions. Construction of all cannabis uses that are assumed to be constructed in a single year under Alternative 4 could generate total of 73.1 tons per year of ROG, 90.9 tons per year of NO_x, 812 lbs per day of PM_{10}, and 443 lbs per day of $PM_{2.5}$ (see Section 3.0, "Environmental Analysis Approach," and Appendix D). These would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

For these reasons, this impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Under Alternative 5, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 50 new noncultivation uses of which up to 45 would be vertically integrated and constructed on single parcels (see Section 3.0, "Environmental Analysis Approach," and Appendix D). Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning and buffering standards under the CLUO. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities. As shown in Table 3.3-5, construction of new individual sites and relocated cultivation sites assumed for analysis purposes would not generate annual levels of ROG and NO_X and daily levels of PM_{10} that exceed applicable YSAQMD emission thresholds. Individual site construction would be required to comply with Sections 8-2.1408(L) and (V) of the CLUO, as well as YSAQMD Best Management Practices, which would further reduce construction emissions. Construction of all cannabis uses that are assumed to be constructed in a single year under Alternative 5 could generate total of 30.8 tons per year of ROG, 53.9 tons per year of NO_x, 459lbs per day of PM_{10}, and 261 lbs per day of $PM_{2.5}$. These would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

For these reasons, this impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AQ-3: Create Long-Term Operational Emissions of Criteria Pollutants and Precursors That Exceed YSAQMD-Recommended Thresholds

Operation of commercial cannabis cultivation and noncultivation sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in ROG, NO_X, and PM_{10} emissions. Implementation of individual permitted cannabis uses under all alternatives would not exceed the YSAQMD thresholds of significance for development projects. Operation of all sites permitted under the CLUO would be consistent with applicable air quality plans. This impact would be **less than significant** for all alternatives.

The following CLUO requirements would address operational air quality.

- Section 8-2.1408(K) Driveway Access: Driveway approaches to County and State maintained roads shall be per current County Improvement Standards or Caltrans requirements, as applicable. An encroachment permit may be required. Controlled access entries must provide a rapid entry system (e.g. Knox Box approved by the local Fire District or fire service provider) for use by emergency personnel and provide adequate space for vehicles to access the lock without impeding the right-of-way. A County assigned street address is a requirement. The address must be posted and adhere to display requirements of the Fire Code. Permittees must demonstrate safe and adequate driveway access to the

satisfaction of the County or Caltrans, as applicable, in compliance with applicable standards. Access considerations identified in Section 8-1.802 of the County Code shall apply. *(For the convenience of the reader these include: will the proposed use have access characteristics different from other permitted land uses; does the proposed access have inadequate design; will emergency vehicle access be impaired; would the proposed access adversely affect safe operations on the adjoining roadway system; are site distance, visibility, proximity to parking, drainage, turning radius, angle of intersection, vertical alignment, and pavement condition adequate for the proposed use and consistent/equitable in relation to access requirements for other permitted uses; proximity to other driveways and intersections; other relevant circumstances identified by the County).* Driveways shall have an all-weather surface, such as compacted gravel.

- Section 8-2.1408(O) Energy Use: Permittees shall demonstrate availability of adequate energy, and compliance with applicable local and regional energy saving goals. Permittees shall demonstrate use of energy efficient best practices for each proposed use type. Onsite generation of energy from clean and/or renewable sources is encouraged. Permittees shall purchase or generate a minimum of 50 percent renewable power through the Valley Clean Energy Alliance or other available energy purveyor. CDFA licensees must satisfy the requirements of Section 8305, Renewable Energy Requirements, of the CDFA Regulations (effective January 1, 2023).

Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD rules and CCR Section 8306. These measures would reduce operational emissions from individual cannabis sites permitted under the CLUO.

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. There is no anticipated graphic art printing associated with cannabis sites, nor are process boilers anticipated to be used at cultivation and noncultivation sites. Thus, the project would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

The cultivation and noncultivation sites permitted under the CLUO would result in long-term operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. ROG and NO_X emissions would be generated by area sources, building energy, stationary sources, and off-road equipment. PM_{10} emissions would be generated from the use of off-road equipment. Because VMT from on-road sources would not be expected to be notably different than existing VMT, mobile-source emissions would not increase, as previously explained.

Emissions associated with the operation of cannabis-related sites across the County would be highest when the most cultivation operations are in harvest at the same time because additional workers are needed at each commercial cannabis cultivation site to work the harvest. The harvest of a single cultivation site of any type (i.e., outdoor, mixed-light, indoor) would occur over a 6-week period between three and four times per year.

As described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," cannabis uses are required to generate 50 percent of their energy demand from renewable sources under the CLUO. It was also assumed for analysis purposes that all existing cultivation sites would comply with the renewable energy requirement of the CLUO and is included in the emissions modeling. All new and relocated cultivation and noncultivation sites were assumed to meet the 2019 California Energy Code.

Regional area-source and off-road equipment emissions of criteria pollutants and precursors associated with adoption and implementation of the proposed CLUO were modeled using CalEEMod. This includes the use of fertilizers, landscaping equipment, backup diesel generators at mixed-light and indoor cultivation sites, and the use of a utility vehicle at outdoor and mixed-light cultivation sites. CCR Section 8306 would require backup diesel generators to meet Tier 3 with Level 3 diesel particulate filter requirements or Tier 4 engines standards beginning in 2023.

Air quality impacts for each alternative is evaluated below. Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 3.3-6. Note that the columns in Table 3.3-6 are not additive; rather, each row in the table represents construction associated with a specific cannabis use site on a particular site. Refer to Appendix E for detailed modeling input parameters and results.

Table 3.3-6 Operational Emissions of Criteria Air Pollutants and Precursors for Each Cannabis Use Type

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	0.2	0.1	<0.1	<0.1
Mixed-Light	0.5	<0.1	<0.1	<0.1
Indoor	0.2	0.1	<0.1	<0.1
Noncultivation				
Nursery	0.7	0.1	<0.1	<0.1
Processing	<0.1	0.1	<0.1	<0.1
Manufacturing	<0.1	0.1	<0.1	<0.1
Testing	<0.1	0.1	<0.1	<0.1
Distribution	<0.1	0.1	<0.1	<0.1
Retail	<0.1	0.1	<0.1	<0.1
Microbusiness	<0.1	0.1	<0.1	<0.1
YSAQMD Thresholds of Significance	**10**	**10**	**80**	**N/A**
Exceeds Threshold?	**No**	**No**	**No**	**N/A**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; YSAQMD = Yolo-Solano Air Quality Management District; N/A = not applicable.

Source: Modeling conducted by Ascent Environmental in 2019

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel developed with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of such parcels. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Once operational, these activities would not differ from typical personal gardening, which would generate minimal criteria air pollutant and precursor emissions from landscaping equipment that would not exceed YSAQMD thresholds.

Alternative 1 consists of existing and eligible cultivation sites and would not create any new operational air pollutant emissions. Alternatives 2 through 5 are assumed to result in the development of new individual cannabis uses as described in Impact AQ-2. As shown in Table 3.3-6, operation of new individual cannabis sites would not result in annual emissions of ROG and NO_X or daily emissions of PM_{10} that would exceed YSAQMD's thresholds of significance. The estimate of emissions from individual sites is considered conservative because it was assumed sites would be operational by 2021 that thus the requirements of CCR Section 8306 were not included because they do not take effect until 2023.

Operation emissions of all assumed cannabis uses under each alternative could generate the following total emissions:

- Alternative 1: 20.9 tons per year of ROG, 6.3 tons per year of NO_x, 3 lbs per day of PM_{10}, and 3 lbs per day of $PM_{2.5}$.

- Alternative 2: 25.9 tons per year of ROG, 10.6 tons per year of NO_x, 6 lbs per day of PM_{10}, and 5 lbs per day of $PM_{2.5}$.

- Alternative 3: 51.5 tons per year of ROG, 21.2 tons per year of NO_x, 11 lbs per day of PM_{10}, and 10 lbs per day of $PM_{2.5}$.

- Alternative 4: 43.6 tons per year of ROG, 11.5 tons per year of NO_x, 5 lbs per day of PM_{10}, and 5 lbs per day of $PM_{2.5}$.

- Alternative 5: 25.9 tons per year of ROG, 10.5 tons per year of NO_x, 5 lbs per day of PM_{10}, and 5 lbs per day of $PM_{2.5}$.

As discussed in the "Thresholds of Significance" section, YSAQMD developed these thresholds in consideration of achieving and maintaining the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, the project's contribution to operational criteria pollutants and precursors would not result in greater acute or chronic health impacts compared to existing conditions. Operation of all cannabis sites that could be permitted under any of the alternatives would not conflict with the General Plan or 2016 Triennial Assessment and Plan Update. Consistency with these applicable plans would meet YSAQMD's threshold for plan-level documents.

This impact would be **less than significant** under all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact AQ-4: Expose a Substantial Number of People to Adverse Odors

Operation of cannabis uses associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could expose residents, businesses and recreation users to objectionable odors created by the growing, processing, and manufacturing of cannabis. The CLUO includes standards that establish a numeric threshold for the concentration of cannabis odors, requirements for the development of an Odor Control Plan, and an enforcement process to correct identified cannabis odor impacts. While these measures would minimize the likelihood of nuisance odors, the potential for odors to occur remains. This impact would be **significant** for all alternatives.

As described in Section 3.3.1, "Environmental Setting," the typical smell of cannabis originates from roughly 140 different terpenes. A terpene is a volatile, unsaturated hydrocarbon that is found in essential oils of plants, especially conifers and citrus trees. Some terpenes are identified explicitly in research (myrcene, pinene, limonene). The "skunk" odor attributable to cannabis is primarily volatile thiols. Cannabis uses that have potential to generate nuisance odors include cultivation, processing, manufacturing, and microbusiness.

As noted above, the County received 17 odor complaints between October 2017 and January 2019 associated with existing cannabis cultivation sites. The majority of these complaints were received during the summer and fall months when cannabis is ready for harvest. These complaints were associated with cultivation sites along the State Route (SR) 16 corridor west of Woodland and sites along SR 128 and Interstate 505 (I-505) south of SR 16.

The CLUO addresses odor impacts through limiting the location of cannabis uses, buffers for outdoor cannabis uses, odor control requirements, and enforcement. The specific provisions are included below.

Section 8-2.1407 of the CLUO requires that cannabis uses to be located in agricultural, commercial, and industrial zones that generally do not contain concentrations of receptors sensitive to odors (e.g., residential uses) (see Table 2-6). In addition to the zoning standards, Section 8-2.1408(E) of the CLUO requires buffers (75 - 1,000 feet) established under alternatives 1, 2, 3, and 5 between outdoor cannabis uses and defined sensitive receptors in order to minimize to potential for nuisances:

> A buffer of X feet[3] is required from the following receptors (inside or outside of the County unincorporated area): off-site individual legal residences under separate ownership, residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust by the federal government or that is the subject of a trust application for a federally recognized tribal government, licensed youth centers that are in existence at the time a use permit is issued for any CDFA permittee. These buffers apply to cannabis uses as specified in Section 8-2,1407, Table of Cannabis Development Regulations, of this article. The buffer shall be measured from the closest point of the cultivation site to:
>
> 1. The closest surface of the building for residences, day cares, places of worship, schools, treatment facilities, and youth centers.
>
> 2. The closest point of the zone boundary for residentially designated land.
>
> 3. The closest point of the parcel boundary for public parks and tribal trust land.

Approved cannabis uses, operating within the terms of their approvals and conditions, shall be exempted from the buffer requirement as applicable to later new uses within the categories identified above, that locate within the described buffer distance.

Section 8-2.1408(CC) of the CLUO establishes the following limits on odor concentration at the property line of a cannabis site, defines what is considered a persistent odor nuisance, and enforcement measures to address verified odor nuisances:

> Cannabis uses shall not create a public nuisance or adversely affect the health or safety of nearby residents or businesses by, among other things, creating dust, light, glare, heat, noise, noxious gases, odor, smoke, traffic, vibration, unsafe conditions, or other impacts, in excess of allowable thresholds, or be hazardous due to the use or storage of materials, processes, products, runoff, unauthorized releases or illegal disposal of wastes.
>
> 1. Subject to subsection 7 below, it is unlawful and it shall be a public nuisance to cause or permit persistent cannabis odors. A persistent cannabis odor is one which is verified by persons of normal odor sensitivity (as defined by European Standard EN 13725) to exist for three consecutive days within any two-week period at a maximum dilution-to-threshold (D/T ratio of seven parts clean or filtered air to one-part filtered odorous air, 7:1), measured at the property line of the site, as a result of investigations resulting from subsection 2, below.
>
> 2. Subject to subsection 7 below, for the purposes of this subsection, cannabis odors shall be deemed to be persistent if the County enforcement officer (i) independently determines that the cannabis odor violates the standards of subsection 1 above, and/or (ii) the County enforcement officer receives three or more complaints of cannabis odor representing separate residences or places of occupied business, of a cannabis odor emanating from the subject property for three consecutive days within any two-week period, that the enforcement officer determines violates the standards of subsection 1 above.
>
> 3. Subject to subsection 7 below, nothing in this subsection shall be deemed to require three verified complaints before the County may initiate enforcement action. The County may determine that a public nuisance exists under this subsection if less than three verified complaints are received or if no complaints are received but County officials or employees observe cannabis odor conditions that violate this subsection.

[3] The buffer distance in the CLUO will determined by the Board of Supervisors at the time of approval of the ordinance.

4. Failure to effectively resolve a public nuisance shall result in enforcement action, up to and including additional conditions, suspension and revocation of the County Cannabis Use Permit and/or County Cannabis License pursuant to the process below.

5. The County applies a three-level citation system to cannabis nuisance violations. Depending on the severity, frequency, or the failure to resolve the cause of the violation, the County enforcement officer may issue an alert, a warning citation, or a Notice of Violation. The alert shall identify the problem, identify relevant code sections, discuss the abatement process, and identify corrective action. The warning citation shall identify the problem, document the history, and mandate specific abatement actions including submittal of a plan and schedule to remedy the problem. A Notice of Violation shall follow the procedures set forth in Section 5-20.10 (*this citation will be revised one the licensing ordinance is moved to Chapter 4 of Title 20*).

6. Subject to subsection 7 below, if at any time during the citation system identified above in subsection 5, the County enforcement officer determines that the conditions at the site are deleterious to the health, safety, or general welfare of any one or more surrounding properties, or that the permittee and/or landowner is not acting in good faith or in a manner sufficient to timely address the complaint, the County enforcement officer may bypass the citation process and take immediate steps to address the violation, including by abatement or any other lawful means.

7. Permittees operating in compliance with this article, in particular Section 8-2.1408(DD)(1), Odor Control, the terms of their Cannabis Use Permit, and other applicable laws shall be presumptively assumed to not cause or contribute to a public nuisance.

8. The County may elect not to investigate any complaint due to resource limitations or other matters. In addition, the County may elect not to investigate complaints submitted by complainants that submit more than three unsubstantiated complaints within a one-year period.

Section 8-2.1408(DD) of the CLUO also provides the following requirements for odor control:

1. The allowable threshold for cannabis odor shall be defined as a maximum dilution-to-threshold (D/T) ratio of seven parts clean or filtered air to one-part odorous air (7:1) measured at the property line of the site. Cannabis odor at or below this threshold shall be considered acceptable and shall not be considered a nuisance. Indoor and mixed light uses must install and maintain the following minimum equipment: an exhaust air filtration system with odor control that effectively minimizes internal odors from being emitted externally; an air system that creates negative air pressure between the facilities interior and exterior so that odors outside of the facility will not exceed the maximum dilution-to-threshold (allowable threshold), as defined herein; or other odor control system which effectively minimizes odor to a level compliant with the allowable threshold.

2. Applicants shall submit the following information: a. Identification and description of cannabis odor emitting activities and nature and characteristics of emissions. b. Description of procedures and engineering controls for reducing/controlling odors. c. Certification by a Professional Engineer or Qualified Odor Professional that the procedures and engineering controls proposed to control cannabis odors are consistent with accepted/available industry-specific best control technologies and methods designed to abate odor and will be effective in abating cannabis odors to the maximum dilution-to-threshold (allowable threshold), as defined herein, at the property line of the site. This shall be submitted in the form of an Odor Control Plan, subject to regular monitoring and reporting.

3. Odor control for outdoor activities may include different plant strains, smaller grow areas, relocation of outdoor activities indoors or in a mixed light facility, use of site design or other technology, odor easements over neighboring property, and/or other methods proven to be effective and accepted by the County.

In addition to these standards the CLUO also includes the following requirements that address nuisance odors as well as the ability for the County to re-evaluate the effectiveness of nuisance and odor control standards:

- Section 8-2.1408(PP) Site Maintenance (General): Permittee shall at all times maintain, manage, and operate the site, all improvements and alterations, and all structures, in good repair, acceptable in appearance, and in reasonably safe condition, including securing all necessary licenses and permits for this work. The site shall be kept free of litter, clutter, and graffiti. The permittee shall prevent and eliminate conditions that constitute a public nuisance.

- Section 8-2.1410(D)(2) Operational Information Required: Odor Control Plan.

- Section 8-2.1413 Effectiveness: Assessment of Effectiveness – Following two years of implementation of this article, staff shall present the Board of Supervisors with an assessment of its effectiveness and any recommendations for change. This evaluation shall include in particular an assessment of the effectiveness of Section 8-2.1408, Specific Use Requirements and Performance Standards, of this article, including Section 8-2.1408(E) Buffers, Section 8-2.1408(U) Good Neighbor Communication, Section 8-2.1408(CC) Nuisance, Section 8-2.1408(DD) Odor Control, and Section 8-2.1412 Enforcement.

The furthest distance cannabis odors may be recognizable or detectable is approximately two miles or more, depending on topography and meteorology (Kern County 2017). This is consistent with the experience of the Cannabis Task Force. However, recognition of an odor does not imply that the odor is a nuisance, only that it can be identified or detected as cannabis. Typically, the odor is detectable much closer to the source, such as adjacent to or on a cultivation site. The distance for odor detection is very site-specific and can be affected by many variables including meteorology, topography, plant strain, and how ready plants are for harvesting. Based on review of County odor complaint data, calm and/or light wind conditions tend to create the greatest potential for odor complaints. In addition, human perception of cannabis plant odors may be influenced by personal views regarding cannabis. Whether the odor is acceptable and the level at which it should be defined as objectionable at various strengths and distances from various land uses is a matter of policy.

The County is considering five alternative variations to the proposed CLUO, all of which rely on the same underlying regulatory requirements that would regulate cannabis activities through land use, zoning, and development standards. The alternatives vary by the assumed type of cannabis license/activity, limits on the number of operations, performance standards and buffer distances. Each EIR alternative and the buffers assumed for that alternative are summarized below:

Table 3.3-7 Alternative Buffer Distances

Alternative	Buffer
Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO)	75 Feet from Individual Residence 1,000 Feet from Other Sensitive Uses
Alternative 2: All License Types with Moderate Limits	1,000 Feet
Alternative 3: All License Types with High Limits	75 Feet
Alternative 4: Mixed-Light/Indoor License Types only with Moderate Limits, No Hoop Houses or Outdoor Types	None
Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail	1,000 Feet

Pursuant to CLUO Section 8.2-1408(E), buffers would apply to the following receptors (inside or outside of the County unincorporated area): individual legal residences under separate ownership, residentially designated land, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust by the federal government or that is the subject of a trust application for a federally recognized tribal government.

CLUO Section 1408(DD)(1) defines an acceptable level of cannabis odor as a maximum dilution-to-threshold (D/T) of seven parts clean or filtered air to one-part odorous air (7:1) or less at the property line of the site. Cannabis odor at or below 7:1 D/T may still be detected off-site; however, pursuant to the CLUO, odor at this threshold would be considered acceptable, and not a nuisance. The public may occasionally detect cannabis odors. However, as noted herein, the 7:1 D/T standard is based on scientific publications on odor pollution control that have identified that odors above 7 D/T will often result in complaints (i.e. objectionable), with 15 D/T often described as a nuisance, and odors above 30 D/T described as a serious nuisance (i.e. nauseating) (McGinley 2000 and Huey et al. 1960).

The CLUO also includes several provisions intended to minimize odor. CLUO Section 1408(DD)(1) requires that indoor and mixed light cannabis uses install odor control equipment to minimize odor. Outdoor cannabis activities are also required to implement odor control measures such as less odorous plant strains, smaller grow areas, relocation of outdoor activities indoors or in a mixed light facility, use of site design or other technology, odor easements over neighboring property, and/or other methods proven to be effective and accepted by the County.

Pursuant to CLUO Section 1408(DD)(2), Cannabis use permit applicants are also required to submit an Odor Control Plan which would include:

a. Identification and description of cannabis odor emitting activities and nature and characteristics of emissions.

b. Description of procedures and engineering controls for reducing/controlling odors.

c. Certification by a Professional Engineer or Qualified Odor Professional that the procedures and engineering controls proposed to control cannabis odors are consistent with accepted/available industry-specific best control technologies and methods designed to abate odor and will be effective in abating cannabis odors to the maximum dilution-to-threshold, as defined in the CLUO, measured at the property line of the site.

Buffers provide a means of reducing the strength or concentration of an odor and the frequency at which it may be detected since buffers provide atmospheric dispersion of odor. The larger the buffer, the more distance is available for dispersion of the odor to occur before it may reach a sensitive receptor. Given this, smaller buffers are generally not as effective in reducing the strength and frequency of the odor compared to a larger buffer distance. In addition, since a larger buffer would provide greater dispersion, it would also likely reduce the number of odor complaints and complaint verification enforcement activities.

Odors with distinct odor characteristics, emanating from proximate sources, are generally not additive or amplified. However, odor with the same or similar odor characteristics, emanating from proximate sources may be additive. Therefore, multiple odor sources in a given geographic area would not necessarily increase the strength of an odor, although a higher frequency of odor detection would be expected. It is not possible to predict what specific cannabis plant strains would occur at proximate sources. However, the overall strength of odor generally would not necessarily be worse under Alternative 3 (All License Types with High Limits) versus Alternative 1 (Existing Operations with CLUO). It should be noted that both the strength and frequency at which the odors from any specific alternative may be detected would be reduced with a large buffer as compared to a small buffer because greater dispersion would occur under the larger separation distance.

Notwithstanding implementation of the cannabis odor minimization measures specified above, including buffers, odors cannot be completely eliminated such that they would not be detectable off-site. This is true for each of the five alternatives and various buffer distances evaluated as part of this EIR. While the measures would reduce the likelihood of nuisance odors, the potential for odor emissions to occur remains. Therefore, this impact is conservatively considered significant for all alternatives, as explained further below.

To ensure the overall quality and consistency of odor investigations, odor verification is conducted by County cannabis enforcement officers who have been screened and determined to be of normal odor sensitivity pursuant to European Standard EN 13725. The officers have also been trained in odor detection using a Nasal Ranger field olfactometer.

When a complaint is received via the County's on-line cannabis complaint form, the weather conditions at the time of the complaint are automatically provided. Since meteorology plays a role in cannabis odors, the County tries to verify the complaint on a day and time when the weather conditions at the time of the complaint can best be replicated. (Strachan 2019)

Compliance with odor control requirements under CLUO Section 8-2.1408(DD)(1) for cannabis uses located within a greenhouse or building can be accomplished through the use of equipment such as the following (Trinity Consultants 2019):

- Activated carbon air filters (carbon scrubber) – forced air circulation through activated carbon filter to filter out odors prior release from the facility.
- Biofilters – a control that utilizes biological adsorptive media.
- Plasma ion technology – odorous gases and aerosols interact with ions and are neutralized.
- Air filters – air passes through densely woven fiber screens which trap odorous particulates (this is viewed as a less effective option relative to carbon scrubbers, biofilters, and is often paired with other technologies).

Using an appropriate odor control technology (such as the examples listed above) coupled with a well-engineered ventilation design, it would be expected that a facility could achieve the allowable threshold for cannabis odor in CLUO Section 8-2.1408 (DD)(1). (Scullion, 2019).

CLUO Section 8-2.1408(DD)(3) includes suggested odor control for outdoor cannabis uses that consist of using different plant strains, relocation of outdoor cultivation to mixed-light or indoor cultivation in a greenhouse or indoor building, odor easements, and/or other methods proven to be effective and accepted by the County. There are cannabis plant strains under development that have reduced odor potential. However, no technical studies are available at this time to confirm the effectiveness of these strains. As discussed above, conversion to indoor or mixed-light cultivation in a greenhouse building can provide effective odor control through operation of filtration systems and comply with the CLUO 7 D/T standard. Odor easements and buffer areas are often used for facilities such as landfills and wastewater treatment plants (e.g., Sacramento Regional Wastewater Treatment Plant) to effectively address nuisance odors. Implementation of the enforcement provisions of CLUO Section 8-2.1408(CC) when a persistent odor nuisance from a cannabis site is verified would require the County enforcement officer to either issue an alert, warning citation, or a Notice of Violation that identifies the need for corrective action. If complaints are not addressed by the cannabis site operators, the County enforcement officer may take immediate steps to address the nuisance which could include revocation of cannabis licensing and/or the Cannabis Use Permit.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel developed with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of such parcels. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required

to be outside of front yard and side yard setback areas. No odor impacts are expected to occur because the limited odor potential of six plants is not expected to generate nuisance odors in excess of 7 D/T off the parcel. Personal use outdoor cultivation would be subject to enforcement actions by the County if it creates a verified persistent nuisance odor issue as provided under CLUO Sections 8-2.1408(CC) and 8-2.1412.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

While most of the existing licensed commercial cannabis cultivation operations would remain in their current locations, nine of the existing sites are assumed to be required to relocate under the CLUO zoning standards because of proposed zoning restrictions (e.g., locations in residential zones). As shown in Exhibit 2-4, most of this existing cultivation occurs along the SR 16 corridor west of the City of Woodland with 22 sites located between the communities of Rumsey and Guinda. This alternative assumes 75-foot buffers between cultivation sites and occupied residences and 1,000-foot buffers between cultivation sites and identified sensitive receptors under the CLUO. No new commercial cannabis uses are assumed under this alternative.

As identified above, the CLUO would restrict cannabis uses to agricultural, commercial, and industrial zoned land that generally does not contain sensitive receptors (CLUO Section 8-2.1407), buffers between outdoor cannabis uses and sensitive receptors (CLUO Section 8-2.1408[E] establish odor control requirements that would prohibit nuisance odors from leaving the cannabis site in excess of 7 D/T, identifies a process of corrective actions for nuisance odor conditions, and requires the development of an Odor Control Plan (CLUO Sections 8-2.1408[CC] and 8-2.1408[DD]). It is acknowledged that this could involve the conversion from outdoor cultivation operations to mixed-light or indoor cultivation within greenhouse buildings designed with odor control in order to achieve compliance with the CLUO odor standards, similar to what is assumed under Alternative 4. As noted above, this alternative is assumed to result in the relocation of nine existing cultivation sites from residential zoned areas, which would substantially reduce potential nuisance odor issues in these residential zoned areas.

While these measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. This impact is conservatively considered **significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

Under Alternative 2, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 52 new noncultivation uses. Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning restrictions (e.g., locations in residential zones) and buffering standards under the CLUO.

New cannabis uses assumed under this alternative that could generate odors include cultivation (two new sites), nurseries (five sites), processing (five sites), microbusiness (five sites) and manufacturing (20 sites). As shown in Exhibit 2-5, this Alternative assumes the following new cannabis uses and potential odor sources in proximity to various communities:

- Guinda: three manufacturing sites and two microbusiness sites
- Esparto: one manufacturing site and one microbusiness site
- Yolo: one manufacturing site
- Dunnigan: two manufacturing site, one nursery site, one processing site, and one cultivation site

The CLUO would restrict cannabis uses to agricultural, commercial, and industrial zoned land that generally does not contain sensitive receptors (CLUO Section 8-2.1407). Buffers between outdoor cannabis uses and sensitive receptors (CLUO Section 8-2.1408[E] establish odor control requirements that would prohibit nuisance odors from leaving the cannabis site in excess of 7 D/T, identifies a process of corrective actions for nuisance odor conditions, and requires the development of an Odor Control Plan (CLUO Sections 8-

2.1408[CC] and 8-2.1408[DD]). As noted above, this alternative is assumed to result in the relocation of 30 existing cultivation sites from residential zoned areas and compliance with the buffer requirements that would substantially reduce potential nuisance odor issues associated with these existing and eligible cultivation sites by increasing the distance between the odor source and defined sensitive receptors.

While these measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. This impact is conservatively considered **significant** for Alternative 2.

Alternative 3: All License Types with High Limits

This alternative is assumed to result in the construction of 82 new cultivation sites and total of 104 new noncultivation uses. Additionally, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning restrictions (e.g., locations in residential zones).

New cannabis uses assumed under this alternative that could generate odors include cultivation (82 new sites), nurseries (10 sites), processing (10 sites), microbusinesses (10 sites), and manufacturing (40 sites). As shown in Exhibit 2-6, this Alternative assumes the following new cannabis uses and potential odor sources in proximity to various communities:

- Guinda: three manufacturing sites, three cultivation sites, three microbusinesses, one nursery site, and two processing sites
- Esparto: two manufacturing sites, three cultivation sites, one microbusiness, and one processing site
- City of Woodland: four manufacturing sites and three cultivation sites
- Yolo: one manufacturing site and one cultivation site
- Dunnigan: four manufacturing sites, two cultivation sites, two nursery sites, two microbusinesses, and one processing site

As identified in Alternative 2, the CLUO would restrict cannabis uses to agricultural, commercial, and industrial zoned land that generally does not contain sensitive receptors (CLUO Section 8-2.1407). Buffers between outdoor cannabis uses and sensitive receptors (CLUO Section 8-2.1408[E] establish odor control requirements that would prohibit nuisance odors from leaving the cannabis site in excess of 7 D/T, identifies a process of corrective actions for nuisance odor conditions, and requires the development of an Odor Control Plan (CLUO Sections 8-2.1408[CC] and 8-2.1408[DD]). As noted above, this alternative is assumed to result in the relocation of nine existing cultivation sites from residential zoned areas that would substantially reduce potential nuisance odor issues in these residential zoned areas.

While these measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. This impact is conservatively considered **significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Under Alternative 4, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning restrictions (e.g., locations in residential zones). It was also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of two new mixed-light or indoor cultivation sites and a total of 52 new noncultivation uses.

New cannabis uses assumed under this alternative that could generate odors include cultivation (two new sites), nurseries (five sites), processing (five sites), microbusinesses (five sites), and manufacturing (20 sites). As shown in Exhibit 2-7, this alternative assumes the following new cannabis uses and potential odor sources in proximity to various communities:

- Guinda: three manufacturing sites and two microbusiness sites
- Esparto: one manufacturing site and one microbusiness site
- Yolo: one manufacturing site
- Dunnigan: one manufacturing site, one nursery site, and one processing site

As identified in Alternative 2, the CLUO would restrict cannabis uses to agricultural, commercial, and industrial zoned land that generally does not contain sensitive receptors (CLUO Section 8-2.1407), buffers between outdoor cannabis uses and sensitive receptors (CLUO Section 8-2.1408[E] establish odor control requirements that would prohibit nuisance odors from leaving the cannabis site in excess of 7 D/T, identifies a process of corrective actions for nuisance odor conditions, and requires the development of an Odor Control Plan (CLUO Sections 8-2.1408[CC] and 8-2.1408[DD]). Odor control for building ventilation systems associated with mixed-light cultivation, indoor cultivation, nurseries, manufacturing, microbusinesses, and processing facilities would be required by CLUO Section 8-2.1408(DD).

Because Alternative 4 assumes all cannabis activities are conducted within structures, this Alternative is likely to have lower odor impacts overall than Alternatives 1, 2, 3, and 5. Specifically, CLUO Section 8-2.1408 (DD) (1) requires that: "Indoor and mixed light uses must install and maintain the following minimum equipment: an exhaust air filtration system with odor control that effectively minimizes internal odors from being emitted externally; an air system that creates negative air pressure between the facilities interior and exterior so that odors outside of the facility will not exceed the maximum dilution-to-threshold, as defined herein; or other odor control system which effectively minimizes odor. Nevertheless, while the assumptions of this alternative and the identified odor control measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. This impact is conservatively considered **significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Under Alternative 5, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 50 new noncultivation uses Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning restrictions (e.g., locations in residential zones) and buffering standards under the CLUO.

New cannabis uses assumed under this alternative that could generate odors include cultivation (two new sites), nurseries (five sites), processing (five sites), microbusinesses (five sites), and manufacturing (10 sites). As shown in Exhibit 2-8, this Alternative assumes the following new cannabis uses and potential odor sources in proximity to various communities:

- Guinda: three manufacturing sites and two microbusiness sites
- Esparto: one manufacturing site and one microbusiness site
- Yolo: one manufacturing site
- Dunnigan: two manufacturing site, one nursery site, one processing site, and one cultivation site

As identified in Alternative 2, the CLUO would restrict cannabis uses to agricultural zoned land that generally does not contain sensitive receptors (CLUO Section 8-2.1407), buffers between outdoor cannabis uses and sensitive receptors (CLUO Section 8-2.1408[E] establish odor control requirements that would prohibit nuisance odors from leaving the cannabis site in excess of 7 D/T, identifies a process of corrective actions for nuisance odor conditions, and requires the development of an Odor Control Plan (CLUO Sections 8-2.1408[CC] and 8-2.1408[DD]). It is acknowledged that this may require the conversion from outdoor cultivation operations to mixed-light or indoor cultivation within greenhouse buildings designed with odor

control to comply with the CLUO odor standards similar to what is assumed under Alternative 4. As noted above, this alternative is assumed to result in the relocation of 30 existing cultivation sites from residential zoned areas and compliance with the buffer requirements that would substantially reduce potential nuisance odor issues associated with these existing and eligible cultivation sites by increasing the distance between the odor source and defined sensitive receptors.

While these measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. This impact is conservatively considered **significant** for Alternative 5.

Mitigation Measures

Mitigation Measure AQ-1: Conduct Wind Pattern Evaluations to Evaluate Odor Control (Alternatives 1, 2, 3, 4, and 5)

The following shall be included as a new performance standard in Section 8-2.1408 (DD) of the CLUO:

- As part of the cannabis use permit process, County staff shall conduct a wind pattern evaluation of each cannabis use application. This evaluation will utilize wind roses (a circular display of the frequency of wind coming from specific directions over a specified period of time). The wind pattern evaluation will identify receptors (as defined in Section 8.2-1408 [E]) located downwind of a proposed cannabis use and potentially affected by nuisance odor for a predominant period of time based on the wind frequency. This will provide staff with additional information for consideration when evaluating a cannabis use permit application.

Notwithstanding the implementation of this measure and other identified existing and proposed regulations, the potential for impacts to occur is conservatively identified as significant and unavoidable because:

- Cannabis remains a controversial activity.
- Some neighbors have expressed that they are very sensitive to the odor and find it to be highly objectionable.
- The proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations.
- Odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

Therefore, this impact is conservatively considered **significant and unavoidable** for all alternatives.

3.4 BIOLOGICAL RESOURCES

This section addresses biological resources known or with potential to occur in Yolo County, and describes potential effects adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO on those resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and common and special-status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation, and mitigation measures recommended to address impacts determined to be significant. Federal, state, and local regulations that pertain to biological resources are summarized.

Comments were received from California Department of Food and Agriculture, California Department of Fish and Wildlife, the Yocha Dehe Wintun Nation, and residents in response to the NOP regarding special-status species, raptors, game species (e.g., deer, wild turkey), sensitive habitats (e.g., wetlands, aquatic habitat), the use of chemicals, and consistency with the *Yolo Habitat Conservation Plan/Natural Community Conservation Plan* (HCP/NCCP). These issues are considered below. The reader is referred to Appendix A for comments received on the NOP.

3.4.1 Environmental Setting

The following key sources of data and information were used in the preparation of this section:

- results of California Natural Diversity Database (CNDDB) record search of Yolo County (CNDDB 2018),
- results of California Native Plant Society (CNPS) Rare Plant Program database search of Yolo County (CNPS 2019),
- California Wildlife Habitat Relationships (CDFW 2018a),
- Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo Habitat Conservancy 2018),
- *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and
- eBird web application (eBird 2018, 2019).

LAND COVER TYPES

There are 20 different land cover types within the County (Table 3.4-1; Exhibit 3.4-1) (Yolo Habitat Conservancy 2018). Approximately 53 percent (343,305 acres) of Yolo County is composed of agricultural land, approximately 12 percent (80,911 acres) is grassland habitat, approximately 12 percent is oak woodland habitat (i.e., blue oak foothill pine, blue oak woodland, valley oak woodland), and approximately 7 percent is chamise or mixed chaparral habitat. Approximately 7 percent of Yolo County contains developed land cover types, primarily in the cities of Woodland, Davis, West Sacramento, and Winters (Exhibit 3.4-1). Total acreages of each habitat type are presented in Table 3.4-1, and land cover types are described below in order of abundance (CDFW 2018a; Yolo Habitat Conservancy 2018). Under this land cover classification system, some habitat that may be zoned for agricultural purposes falls into other land cover categories (e.g., grassland, oak woodland).

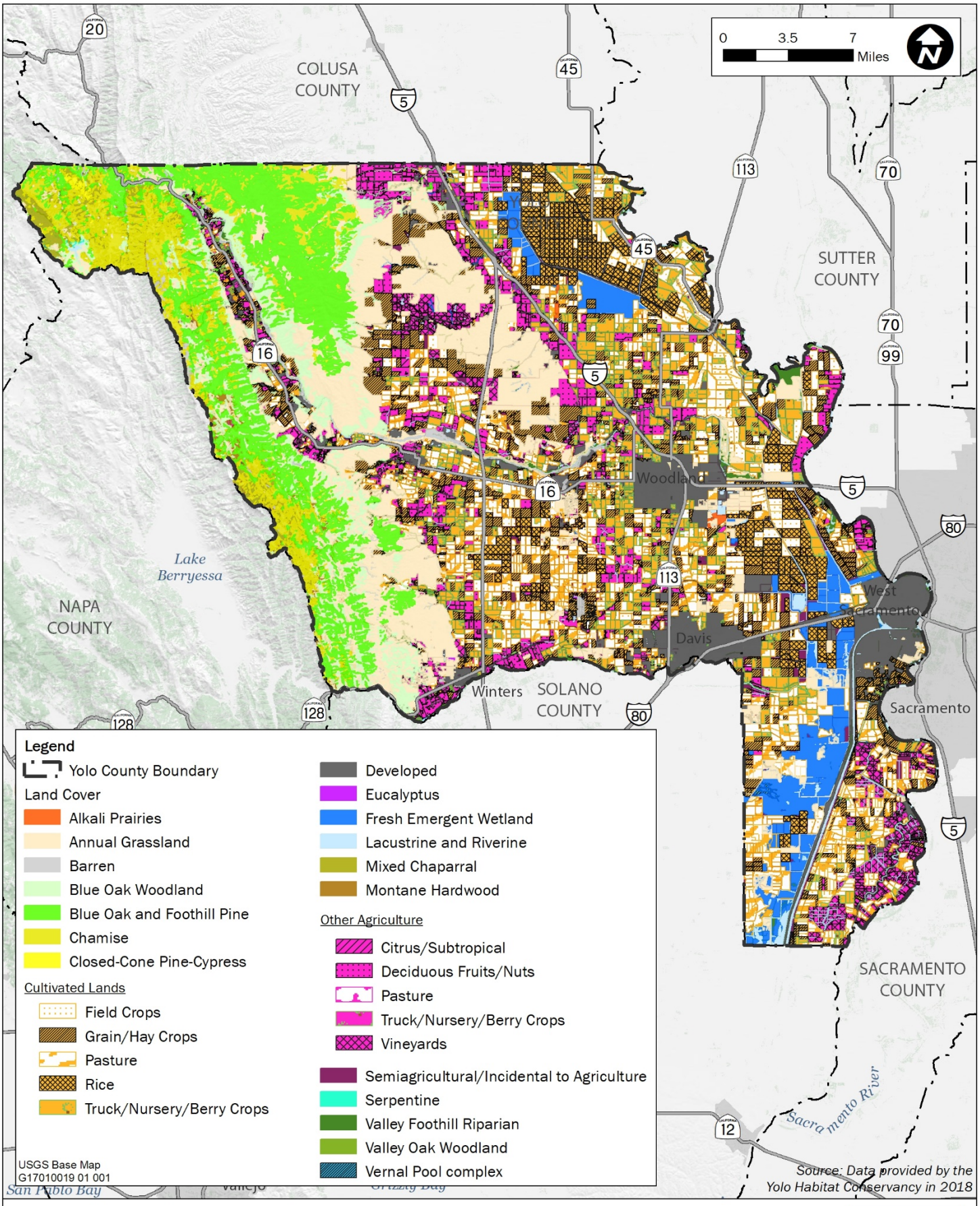


Exhibit 3.4-1 **Vegetation Land Cover**

Table 3.4-1 Habitat Types within Yolo County

Habitat Type	Size (acres)
Cultivated Lands	250,631
Annual Grassland	80,911
Other Agriculture	62,164
Developed	45,492
Blue Oak and Foothill Pine	43,772
Blue Oak Woodland	35,891
Semiagricultural/Incidental to Agriculture	30,510
Chamise	30,187
Fresh Emergent Wetland	26,309
Mixed Chaparral	14,518
Lacustrine and Riverine	13,493
Valley Foothill Riparian	12,565
Montane Hardwood	3,087
Barren	2,346
Eucalyptus	369
Alkali Prairies	312
Vernal Pool Complex	299
Serpentine	247
Closed-Cone Pine-Cypress	212
Valley Oak Woodland	181

Source: Yolo Habitat Conservancy 2018; data compiled by Ascent Environmental in 2018

Cultivated Lands

The Cultivated Lands category includes the following agricultural land types that can provide habitat for wildlife: alfalfa, field crops, grain/hay crops, pasture, rice, and truck/berry crop agricultural types (Table 3.4-1). The distribution of these agricultural land types within the County may expand and contract rapidly with market conditions and crop rotations. These agricultural types are described below.

Alfalfa

Alfalfa (*Medicago sativa*) is a relatively low-growing perennial herbaceous legume species that is periodically irrigated and cut for hay five times during the growing season. Since it can fix nitrogen, alfalfa is often used as a green manure and is incorporated into the soil as part of many crop rotations. The high protein content of its leaves also make alfalfa highly palatable for rodents such as ground squirrels and gophers, which are often present in high numbers in the fields.

Common wildlife species known to forage in alfalfa fields include American kestrel (*Falco sparverius*), California horned lark (*Eremophila alpestris*), American pipit (*Anthus rubescens*), western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), California meadow vole (*Microtus californicus*), house mouse (*Mus musculus*), brown rat (*Rattus norvegicus*), and black-tailed jackrabbit (*Lepus californicus)* may use these areas as primary habitat.

Alfalfa in particular supports special-status raptor species because it provides such important forage for ground squirrels, gophers, voles, and other small mammals. Special-status raptors such as burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), long-eared owl (*Asio otus*), short-eared owl

(*Asio flammeus*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus hudsonius*), and Swainson's hawk (*Buteo swainsoni*) can be found foraging in these fields. Alfalfa fields are particularly important for Swainson's hawk which preferentially congregate in large numbers in these fields to forage on insects, voles, and other prey flushed during harvesting or flood irrigating.

Field Crops

Field crops in the County consist of irrigated row crops and represent one of the most abundant agricultural types within Yolo County, including corn, dry beans, sorghum, safflower, Sudan grass, and sunflowers.

Common wildlife species known to forage in field crops include American kestrel, horned lark, American pipit, western meadowlark, red-winged blackbird, yellow-billed magpie (*Pica nuttalli*), house finch (*Haemorhous mexicanus*), herons and egrets. California meadow vole, house mouse, brown rat, and black-tailed jackrabbit may use these areas as primary habitat.

Field crops support special-status wildlife species including Swainson's hawks, which often congregate in large numbers to forage on insects, voles, and other prey flushed during harvesting or flood irrigating. Additionally, Townsend's big-eared bat (*Corynorhinus townsendii*) and mountain plover (*Charadrius montanus*) may utilize plowed fields for foraging.

Grain and Hay Crops

Grain and hay crops include dryland grain and hay production operations in the County. In dryland farming, wheat is the dominant grain crop, with smaller acreages of barley and rye. Oat hay is the dominant hay crop. In some years, dryland grain and hay production occurs on less fertile soils such as those in the Dunnigan Hills and along the base of the Blue Ridge.

Grain and hay crops support common wildlife species, including mourning dove (*Zenaida macroura*), western meadowlark, Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird, yellow-billed magpie, coyote (*Canis latrans*), California ground squirrel (*Otospermophilus beecheyi*), and black-tailed jackrabbit.

Grain and hay crops provide foraging for special-status wildlife, including Swainson's hawk, northern harrier, tricolored blackbird (*Agelaius tricolor*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), and pallid bat (*Antrozous pallidus*).

Pasture

Pastures are typically planted with non-native grasses or leguminous plant species and are actively irrigated. Pastures are generally located on landscapes with flat to gently rolling terrain to facilitate border or sprinkler irrigation. Within Yolo County, the majority of the pasturelands are located on valley floors and are concentrated in the south-central and southeastern sections of the County. Pasturelands that have been planted with non-native grasses (i.e., lacking natural/historic biological conditions) do not represent potential habitat for any special-status plant species.

Common wildlife species found in pastures include mallard (*Anas platyrhynchos*), killdeer (*Charadrius vociferus*), western kingbird (*Tyrannus verticalis*), western meadowlark, yellow-billed magpie, and red-winged blackbird.

Pasturelands provide foraging opportunities for special-status wildlife species, including California tiger salamander (*Ambystoma californiense*) (using existing burrows), western spadefoot (*Spea hammondii*), Swainson's hawk, American Peregrine falcon (*Falco peregrinus anatum*), northern harrier, burrowing owl, loggerhead shrike, long-eared owl, short-eared owl, yellow-headed blackbird, tricolored blackbird, Townsend's big-eared bat, and pallid bat. Additionally, these areas provide breeding habitat for northern harrier and burrowing owl (where existing ground squirrel burrows are present).

Rice

Rice is a flood-irrigated crop that is a seed-producing annual grass. It is generally grown in leveled fields that are flooded for most of the growing period and then dried to mature and facilitate harvesting. Commercial rice generally grows to about 2 feet tall and has 100-percent canopy closure when it matures. Rice is generally planted in the spring and harvested in the fall.

Rice provides valuable habitat that varies seasonally for a range of wetland and upland wildlife species. Rice is a particularly important food source for wintering waterfowl. Rice fields support a number of common wildlife species, including the great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), black-crowned night heron (*Nycticorax nycticorax*), tundra swan (*Cygnus columbianus*), greater white-fronted goose (*Anser albifrons*), snow goose (*Chen caerulescens*), mallard, gadwall (*Anas strepera*), northern pintail (*Anas acuta*), black-necked stilt (*Himantopus mexicanus*), white-faced ibis (*Plegadis chihi*), long-billed dowitcher (*Limnodromus scolopaceus*), dunlin (*Calidris alpina*), least sandpiper (*Calidris minutilla*), mourning dove, western meadowlark, red-winged blackbird, and various rodents. Rice is known to provide habitat for one special-status species, giant garter snake (*Thamnophis gigas*).

Truck and Berry Crops

Truck and berry crops include intensive agricultural operations that produce food and landscaping plants that are typically transported for sale elsewhere. Truck farming is the cultivation of one or a few fruit or vegetable crops on a relatively large scale for transport to distant markets and includes the production of asparagus, broccoli, onions, garlic, and carrots. The berry crops category encompasses more than typical berries, and is dominated by tomato cultivation, but other berry crops include melons, squashes, cucumbers, onions, garlic, peppers, and strawberries. Farming practices associated with these crops generally suppresses the growth of other vegetation.

Common wildlife species associated with this land cover include foraging raptors, skunks, foxes, yellow-billed magpie, and brewer's blackbirds. Special-status species that utilize truck and berry crops include northern harrier and Swainson's hawk.

Annual Grassland

Grassland habitat in Yolo County includes both annual and perennial grassland types. Grassland is typically dominated by nonnative, naturalized grasses such as barbed goatgrass (*Aegilops triuncialis*), wild oats (*Avena* spp.), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Italian ryegrass (*Lolium multiflorum*), Medusahead (*Taeniatherum caput-medusae*), and rattail fescue (*Vulpia myuros*). Grassland also supports both native and nonnative forbs. Many common wildlife species utilize grassland habitat, including reptiles, birds, and mammals; and provides important foraging habitat for raptors such as American kestrel and red-tailed hawk (*Buteo jamaicensis*).

Special-status wildlife species known to utilize grassland within the County are as follows. Grassland provides foraging habitat for pallid bat and foraging and denning habitat for American badger (*Taxidea taxus*). Special-status bird species for which grassland provides primary foraging and nesting habitat include northern harrier, and western burrowing owl. Grassland also provides foraging habitat for special-status raptor species including Swainson's hawk, white-tailed kite, golden eagle (*Aquila chrysaetos*), short-eared owl, and long-eared owl. Grassland also serves as primary foraging habitat for loggerhead shrike, grasshopper sparrow (*Ammodramus savannarum*), purple martin (*Progne subis*), tricolored blackbird, and yellow-headed blackbird. California tiger salamander and western spadefoot utilize vernal pools and other wetlands within grassland for breeding and the grassland themselves for cover during movement or during dry periods.

Other Agriculture

Other Agriculture land cover in the County includes citrus and subtropical orchards; deciduous fruit and nut orchards; flower, nursery, and tree farms; vineyards; and a form of pasture specific to this category. These agricultural types are described below.

Citrus and Subtropical Orchards

Citrus and subtropical orchards in Yolo County include olives, oranges, and kiwis. Citrus and subtropical orchards are typically actively irrigated and maintained (e.g., pruning, mowing between rows, pesticide application). If present, the herbaceous understory between rows is dominated by ruderal species and grasses.

Common wildlife including American crows, common raven (*Corvus corax*), Brewer's blackbird, and European starling (*Sturnus vulgaris*).

This type may provide foraging and roosting for western red bats, a special-status species.

Deciduous Fruit and Nut Orchards

Deciduous fruit and nut orchards in the County include almonds, apples, apricots, cherries, figs, peaches, nectarines, pears, pistachios, prunes, and walnuts.

Deciduous fruit and nut orchards support a number of common wildlife species, including those listed above under citrus/subtropical and American robin, yellow-billed magpie, and house finch. Mule deer (*Odocoileus hemionus*) and rabbits may browse on trees, while California ground squirrels may consume fruits and nuts.

This type supports one special-status bat: the western pallid bat.

Flower, Nursery, and Tree Farms

The Flower, Nursery, and Tree Farmland cover in Yolo County includes agricultural operations that produce landscaping plants that are typically transported for sale elsewhere. Nurseries produce flowering plants, shrubs, and trees for local and distant retail sales. Farming practices associated with these crops generally suppresses the growth of other vegetation.

Common wildlife species associated with this land cover will be similar to those listed for the orchard land covers above.

Vineyards

Vineyards comprise single species planted in rows, usually supported on wood and wire trellises. Vineyards are usually treated with herbicides to prevent the growth of herbaceous plants. Vineyards are predominant in the north-central portion of Yolo County, near the Interstate 5 corridor, and along the Sacramento River, near the southern boundary of the County.

Vineyards support a number of common wildlife species, including the American crow, California scrub-jay, American robin, European starling, mourning dove, and house finch. However, they are not primary habitat for special-status species.

Pasture

Pastures under the Other Agriculture land cover type are typically turf farms planted with non-native grasses. These farms are mainly composed of heavily maintained sod with frequent fertilization, watering, and mowing activities. This crop has little value for wildlife because of the heavy maintenance, lack of cover, and elimination of pests (and, in doing so, a prey base).

Developed

In Yolo County, developed land occurs within the cities of Woodland, West Sacramento, Davis, and Winters, unincorporated communities, and along Interstate 5 (I-5), State Route (SR) 505, and SR 16. Along with urban development, suburban development, and other hardscape, urban landcover also includes urban landscaping, lawns, parks, and green zones.

Common urban wildlife species include rock pigeon (*Columba livia*), mourning dove, house sparrow (*Passer domesticus*), European starling, and racoon (*Procyon lotor*). Additionally, the city of Davis currently supports a wild turkey (*Meleagris gallopavo*) population.

Urban areas support special-status wildlife species including roosting and nesting by the white-tailed kite and Swainson's hawk. Purple martin has also been documented nesting recently in urban overpasses and elevated freeways in Yolo County and adjacent lands.

Blue Oak and Foothill Pine

Blue oak and foothill pine woodland land cover is dominated by blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*); however, interior live oak (*Quercus wislizeni*), California buckeye (*Aesculus californica*), coast live oak (*Quercus agrifolia*), and valley oak (*Quercus lobata*) may also be present. Species typically found in the shrub understory are buckbrush, whiteleaf manzanita (*Arctostaphylos manzanita* ssp. *glaucescens*), redberry (*Rhamnus crocea*), poison oak (*Toxicodendron diversilobum*), silver bush lupine (*Lupinus albifrons*), and blue elderberry (*Sambucus nigra* ssp. *cerulea*). The herbaceous understory supports grass and forb species that are also associated with annual grassland.

Blue oak and foothill pine woodlands support several common wildlife species, including band-tailed pigeon (*Patagioenas fasciata*), hairy woodpecker (*Picoides villosus*), pileated woodpecker (*Dryocopus pileatus*), California scrub-jay (*Aphelocoma californica*), oak titmouse, Hutton's vireo (*Vireo huttoni*), mule deer, bobcat (*Lynx rufus*), and striped skunk (*Mephitis mephitis*).

Special-status species for which oak-foothill pine woodlands provide primary habitat include golden eagle, pallid bat, Townsend's big-eared bat, and western red bat (*Lasiurus blossevillii*).

Blue Oak Woodland

Blue oak is the dominant overstory species within blue oak woodland, and the associated overstory species listed above for blue oak and foothill pine woodland may also be present. Species typically comprising the shrub layer of blue oak woodland are poison oak, California coffeeberry (*Rhamnus californica*), buckbrush, and manzanita (*Arctostaphylos* spp.). The herbaceous understory of blue oak woodland is comparable to that of blue oak-foothill pine woodlands.

Common wildlife species known to utilize blue oak woodland are comparable to those described above for blue oak and foothill pine woodlands.

Special-status species for which blue oak woodland provides primary habitat include golden eagle, loggerhead shrike, white-tailed kite, American badger, pallid bat, Townsend's big-eared bat, and western red bat.

Semiagricultural/Incidental to Agriculture

Semiagricultural areas include livestock feedlots, poultry farms, farmsteads, and miscellaneous semi-agricultural features, such as small roads, ditches, and unplanted areas of cropped fields (e.g., field edges). Feedlots or "feed yards" are confined livestock feeding operations that are used for preparing livestock, mainly cattle, for slaughter. They may contain thousands of animals in an array of pens and support virtually no vegetation. Poultry farms raise chickens, turkeys, ducks, and geese for meat or egg production.

Common wildlife associated with this land cover include Brewer's blackbird, European starling, rock pigeon, and mourning dove.

Tricolored blackbird, which is a special-status wildlife species, may congregate in large numbers to feed on grain at feedlots and poultry operations. Additional special-status species which may use the farmsteads and field edges are Swainson's hawk, white-tailed kite, loggerhead shrike, and western burrowing owl.

Chamise

Chamise (*Adenostoma fasciculatum*) shrublands may consist of nearly homogenous areas of chamise or may have buckbrush (*Ceanothus cuneatus*) as a co-dominant species. In addition to chamise and buckbrush, chamise vegetation types can also support plant species such as California yerba santa (*Eriodictyon californicum*), pitcher sage (*Lepechinia calycina*), and deerweed (*Lotus scoparius*).

This vegetation type supports common wildlife species such as California scrub-jay, wrentit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), and California towhee (*Pipilo crissalis*). Numerous special-status bird species may fly over, forage or take cover in chamise located adjacent to primary habitat but are not dependent on these areas.

Freshwater Emergent Wetland

Freshwater emergent wetland in the County is typically associated with Cache Creek, the Sacramento River, the Yolo Bypass, and other creeks and canals, but can be found anywhere the topography permits perennial or seasonal soil saturation or flooding by fresh water. Perennially flooded areas are typically dominated by cattails, tule, and California bulrush that can reach up to 12 feet in height. Seasonally saturated or inundated areas contain much smaller plant species and are more variable in their plant species composition. Dominant species in many lower elevation, seasonally-inundated wetlands include Baltic rush (*Juncus balticus*), iris-leaved rush (*Juncus xiphioides*), and spikerushes (*Eleocharis* spp.).

Within Yolo County, sedges (*Carex* spp.) and rushes (*Juncus* spp.) dominate the emergent wetlands that are found within the drainages located between the Blue Ridge and Highway 16, between Rocky Ridge and Interstate 5, and in the Dunnigan Hills. There are bulrush and cattail emergent wetlands in the Willow Slough Bypass just east of the City of Davis, and alkali bulrush emergent wetlands in the lowlands just west of the Sacramento River Deep Water Ship Channel in southeast Yolo County.

Saline emergent wetlands, which are salt or brackish marshes consisting mostly of perennial grasses and forbs, are also included in this category. Vegetation in saline emergent wetlands in the County includes perennial pepperweed (*Lepidium latifolium*), saltgrass (*Distichlis spicata*), pickleweed (*Salicornia subterminalis*), tule (*Scirpus acutus*), and white knotweed (*Polygonum punctatum*).

Freshwater emergent wetlands support a number of common wildlife species, including the great blue heron, great egret, snowy egret, black-crowned night-heron, Virginia rail (*Rallus limicola*), common gallinule (*Gallinula galeata*), American coot (*Fulica americana*), marsh wren (*Cistothorus palustris*), song sparrow, and red-winged blackbird.

Freshwater emergent wetlands support special-status species including American peregrine falcon, black tern (*Chlidonias niger*), California black rail (*Laterallus jamaicensis coturniculus*), least bittern (*Ixobrychus exilis*), long-eared owl, northern harrier, short-eared owl, tricolored blackbird, western snowy plover, yellow-headed blackbird, and giant garter snake.

Mixed Chaparral

The majority of the mixed chaparral habitat within Yolo County is present in the western half of the County, associated with the California Coast Ranges. Shrub species dominant on non-serpentine soils are common manzanita (*Arctostaphylos manzanita*), scrub oak (*Quercus berberidifolia*), toyon (*Heteromeles arbutifolia*), and birch-leaf mountain mahogany (*Cercocarpus betuloides*). Other species present in mixed chaparral types are California bay (*Umbellularia californica*), and buckbrush. Herbaceous species present in chaparral are sparse annual grasses, pitcher sage, and deerweed. Shrub species dominant on serpentine soils include whiteleaf manzanita, California bay, and leather oak (*Quercus durata*).

Mixed chaparral supports several common wildlife species including year-round residents, such as western fence lizard, Skilton's skink (*Plestiodon skiltonianus*), gopher snake (*Pituophis catenifer*), California kingsnake (*Lampropeltis californiae*), western rattlesnake (*Crotalus oreganus*), mule deer, coyote, gray fox (*Urocyon cinereoargenteus*), mountain quail (*Oreortyx pictus*), California quail (*Callipepla californica*), mourning dove, Anna's hummingbird (*Calypte anna*), California scrub-jay, oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), California thrasher, wrentit, California towhee, spotted towhee (*Pipilo maculatus*), rufous-crowned sparrow (*Aimophila rufeceps*), sage sparrow (*Amphispiza belli*), and lesser goldfinch (*Carduelis psaltria*). Summer residents include blue-gray gnatcatcher (*Polioptila caerulea*), black-headed grosbeak (*Pheucticus melanocephalus*), orange-crowned warbler (*Vermivora celata*), and lazuli bunting (*Passerina aemona*). Winter residents include hermit thrush

(*Catharus guttatus*), fox sparrow (*Passerella iliaca*), golden-crowned sparrow (*Zonotrichia atricapilla*), white-crowned sparrow (*Zonotrichia leucophrys*), and dark-eyed junco (*Junco hyemalis*). Similar to chamise, special-status bird species may fly over, forage or take cover in mixed chaparral located adjacent to primary habitat but are not dependent on these areas.

Lacustrine and Riverine

Lacustrine habitat in Yolo County includes human-made ponds associated with urban and agricultural development, and the approximately 200-acre Davis Creek reservoir in the northwestern portion of the count, that was built in the 1980s for gold mining purposes. The major riverine features in Yolo County include the Sacramento River (including the Sacramento River Deepwater Ship Channel) along the eastern edge of the County; Cache Creek in the western portion of the County; portions of Putah Creek along the southern edge of the County; and various irrigation ditches, sloughs, creeks, and drainage channels. Agricultural ditches in eastern Yolo County provide habitat for the giant garter snake, federally and state listed as threatened, as well as other aquatic species such as western pond turtle (*Actinemys marmorata*).

The Sacramento River is largest river and watershed system in California, and the river and associated tributaries are vital to anadromous fish species, including two populations of chinook salmon (*Oncorhynchus tshawytscha*) (Central Valley spring-run evolutionarily significant unit [ESU] and Sacramento River winter-run ESU), steelhead (*Oncorhynchis mykiss irideus*), white sturgeon (*Acipenser transmontanus*), and green sturgeon (*Acipenser medirostris*). The watershed also supports delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), and eulachon (*Thaleichthys pacificus*). Marshlands and irrigated agricultural land associated with the Sacramento River watershed provide important habitat for waterfowl, shorebirds, and species like the tricolored blackbird.

The Cache Creek watershed does not support anadromous fish species but supports other native fish such as pikeminnow (*Ptychocheilus grandis*), California roach (*Hesperoleucus symmetricus*), Sacramento sucker (*Catostomus occidentalis*), smallmouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoides*), and channel catfish (*Ictalurus punctatus*). The watershed also supports California endemic tule elk (*Cervus elaphus nannodes*) and a large overwintering bald eagle (*Haliaeetus leucocephalus*) population.

The Putah Creek watershed supports a breeding population of Chinook salmon and a landlocked population of rainbow trout that was once part of the anadromous steelhead population before construction of the Putah Creek diversion dam.

Valley Foothill Riparian

Valley foothill riparian habitat within Yolo County is associated with aquatic habitat, including the Sacramento River, Cache Creek, Putah Creek, Willow Slough, Union School Slough, Dry Slough, Chickahominy Slough, and the Colusa Basin Drain. Dominant overstory species within this habitat in Yolo County includes valley oak, Fremont cottonwood (*Populus fremontii*), and California sycamore (*Platanus racemosa*); and understory tree species can include white alder (*Alnus rhombifolia*), boxelder, and Oregon ash (*Fraxinus latifolia*). Understory shrub vegetation includes California grape, California wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry, poison oak, common buttonbush (*Cephalanthus occidentalis*), and various willows (*Salix* spp.). Portions of the riparian habitat along Cache Creek contain smallflower tamarisk (*Tamarix parviflora*), which is an invasive species that has become part of the riparian landscape in the region.

Valley foothill riparian woodland supports a number of common wildlife species, including the red-shouldered hawk, great horned owl, black-chinned hummingbird, California scrub-jay, Nuttall's woodpecker, downy woodpecker (*Picoides pubescens*), American crow (*Corvus brachyrhynchos*), bushtit, yellow-billed magpie, oak titmouse, white-breasted nuthatch, black-headed grosbeak, blue grosbeak (*Passerina caerulea*), lazuli bunting, Bullock's oriole, house finch, American goldfinch (*Carduelis tristis*), striped skunk, raccoon, and various rodents.

This type also contains habitat for the following special-status wildlife species, the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), western pond turtle, bank swallow (*Riparia riparia*), Swainson's hawk, long-eared owl, western yellow-billed cuckoo (*Coccyzus americanus*), white-tailed kite, yellow-breasted chat (*Icteria virens*), pallid bat, Townsend's big-eared bat, and western red bat.

Montane Hardwood

Montane hardwood forests in the County are characterized by a mixture of conifers and broad-leafed trees that are evergreen or deciduous and generally lack a well-developed shrub understory and herbaceous layer. Trees present in the overstory of montane hardwood forest in the County are canyon live oak (*Quercus chrysolepis*), black oak (*Quercus kelloggii*), bigleaf maple (*Acer macrophyllum*), foothill pine, California bay, and California buckeye.

Montane hardwood forest supports several common wildlife species, including western skink, northern alligator lizard (*Elgaria coerulea*), common kingsnake, gopher snake, western rattlesnake, red-tailed hawk, American kestrel, California quail, mourning dove, great horned owl (*Bubo virginianus*), western screech-owl (*Otus kennicottii*), northern pygmy-owl (*Glaucidium gnoma*), Anna's hummingbird, acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), ash-throated flycatcher (*Myiarchus cinerascens*), California scrub-jay, oak titmouse, white-breasted nuthatch (*Sitta carolinensis*), Bewick's wren, house wren (*Troglodytes aedon*), blue-gray gnatcatcher, western bluebird (*Sialia mexicana*), American robin (*Turdus migratorius*), orange-crowned warbler, black-headed grosbeak, lazuli bunting, spotted towhee, California towhee, Bullock's oriole (*Icterus bullockii*), house finch, lesser goldfinch, dark-eyed junco, deer mouse (*Peromyscus maniculatus*), western gray squirrel (*Sciurus griseus*), striped skunk, raccoon, bobcat, and mule deer.

Montane hardwood forest may provide primary habitat for special-status wildlife species including pallid bat and Townsend's big-eared bat.

Barren

Barren habitat is devoid of vegetation and is often associated with urbanization or other disturbances on the landscape. In Yolo County, barren habitat is associated with mining operations along Cache Creek and with future housing development areas in West Sacramento.

Barren habitats support common wildlife species, including killdeer, California gull, mourning dove, horned lark, and house sparrow. This habitat type also provides primary habitat for the western burrowing owl and western snowy plover, which are special-status wildlife species.

Eucalyptus

Large stands of nonnative blue gum (*Eucalyptus globulus*) trees are present within the unincorporated town of Dunnigan. These trees were planted in the 1900s for a hardwood production operation. While blue gum is not a California native species, several bird species use the trees to nest, including American crow, common raven, barn owl (*Tyto alba*), red-tailed hawk, and red-shouldered hawk (*Buteo lineatus*). Eucalyptus stands may also provide nesting habitat for Swainson's hawk.

Alkali Prairies

Alkali prairies are found in the western portion of the County. Alkali prairies occur in low-lying areas within alkaline or saline soils. The salts in the soils are dissolved during the wet winter months, and form high concentrations of salt (i.e., a crust) in these low-lying areas when the water evaporates. The high salt concentration restricts vegetation to salt-tolerant or halophytic (i.e., salt-loving) plant species; vegetation is often dominated by salt grass.

Plant species present in alkali prairies in the County include flat-face downingia (*Downingia pulchella*), curly dock (*Rumex crispus*), gumplant (*Grindelia camporum*), alkali coyote thistle (*Eryngium aristulatum*), alkali heath (*Frankenia salina*), bush seepweed (*Suaeda moquinii*), common spikeweed (*Centromadia pungens*), and annual hairgrass (*Deschampsia danthonoides*).

Common wildlife species found in this land cover include great blue heron, killdeer, and song sparrow (*Melospiza melodia*).

Alkali prairies also support special-status wildlife species, including western snowy plover (*Charadrius alexandrinus nivosus)*. Many special-status hawk species, including northern harrier, American peregrine falcon, Swainson's hawk, and white-tailed kite, use these areas for foraging.

Vernal Pool Complex

A vernal pool complex refers to a landscape-scale mosaic of vernal pools that are typically connected by surface features such as swales and/or subsurface water flow. Vernal pools are shallow seasonally-inundated depressions, that are characterized by the presence of a restrictive layer (clay alluvium) that prevents groundwater from percolating downward and effectively keeps water perched at or near the ground surface until it evaporates or is taken up by plants. Vernal pools receive precipitation during the wet winter months, gradually dry down during the spring, and are dry during the summer. Vernal pool complexes in Yolo County are located on the Davis Communications Site, Woodland Regional Park, and CDFW's Tule Ranch Unit of the Yolo Bypass Wildlife Area.

Plant species commonly observed in vernal pool complexes are coyote thistle (*Eryngium castrense*), downingia (*Downingia* spp.), vernal pool goldfields (*Lasthenia fremontii*), popcorn-flower (*Plagiobothrys* spp.) vernal pool buttercup (*Ranunculus bonariensis* var. *trisepalus*), vernal pool hairgrass (*Deschampsia danthonioides*), and woolly marbles (*Psilocarphus brevissimus*).

Some common wildlife species that occur in vernal pool complexes include various aquatic invertebrates such as species of small crustaceans; seed shrimp, copepods, and daphnia; and insects; aquatic beetles, water boatman, backswimmers. Waterfowl may feed on these invertebrates during the wet season. During the dry season, common wildlife species would be similar to those associated with grassland.

Vernal pool complexes provide primary habitat for special-status wildlife species including Conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and California tiger salamander (within the designated critical habitat area for the species in the Dunnigan Hills). Other special-status wildlife species, including northern harrier, prairie falcon, Swainson's hawk and white-tailed kite presumably may use vernal pool complex incidental to foraging in adjacent grassland habitats.

Serpentine

Serpentine vegetation types identified in the County are serpentine chaparral, serpentine grassland, and serpentine barrens; all are rare in Yolo County. Serpentine soils in the County are derived from Franciscan Complex rock of the Little Blue Ridge. Serpentine soils are not abundant in California (approximately 1 percent of the state's land area); however, where they occur, the complex interaction of plants, soils, and rock makes a striking impact on the landscape. Serpentine rock is composed mainly of iron magnesium silicate, with "impurities" of chromium, nickel, and other toxic metallic elements. Because of this unusual chemical makeup, the soils weathering from serpentinite are infertile or even toxic to most plants. Some plants are adapted to serpentine soils, and over 200 species, subspecies, and varieties of plants in California are restricted wholly or in large part to serpentine habitat.

Common wildlife species known to utilize these areas are comparable to those that utilize grassland; however, serpentine does not provide primary habitat for special-status species.

Closed-Cone Pine-Cypress

Closed-cone pine-cypress forest encompasses is co-dominated by knobcone pine (*Pinus attenuata*) and MacNab Cypress (*Cupressus macnabiania*). Closed-cone pine-cypress forest in the County consists of relatively small trees that require periodic fires for seedling recruitment. Areas dominated by knobcone pine occur on the north-facing slope of the Blue Ridge, and along Yolo County's northern boundary immediately

above Cache Creek. Areas dominated by MacNab cypress are present at the University of California's McLaughlin Reserve in the Little Blue Ridge at the junction of Yolo, Napa, and Lake Counties.

Common wildlife species known to utilize closed-cone pine-cypress forest include many of those listed for other forest and woodland land covers. Closed-cone pine-cypress does not provide primary habitat for special-status wildlife.

Valley Oak Woodland

Valley oak woodland in the County consists of stands dominated by valley oak that are located outside of riparian zones. Valley oak woodland is considered separate from the Valley Foothill Riparian vegetation type described above, which encompasses streamside habitats that are dominated by valley oak, but that also have a greater abundance of typical riparian species, such as Fremont cottonwood, ash (*Fraxinus* spp.), and willows.

Valley oak woodlands typically occur in lowland areas that have deep, well-drained alluvial soils. Valley oak woodlands were once much more abundant within lowland areas, but the conversion of these areas to agriculture has reduced the distribution within Yolo County to a few scattered, dense stands and small groves or individual trees adjacent to around farmsteads, agricultural work areas, roadsides, and within agriculture fields.

Valley oak woodlands support nesting and foraging of numerous common wildlife species, including, but not limited to Nuttall's woodpecker, yellow-billed magpie, California scrub-jay, oak titmouse, white-breasted nuthatch, western bluebird, American kestrel, and red-tailed hawk.

Special-status plant species with the potential to occur in valley oak woodlands are comparable to those that could potentially occur in oak-foothill pine woodland.

SPECIAL-STATUS SPECIES

Special-status species are plants and animals that are legally protected under the California Endangered Species Act (CESA) (Fish and Game Section 2050 et seq.), the federal Endangered Species Act (ESA), or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this program EIR, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12) for listed plants, (50 CFR Section 17.11) for listed animals, and various notices in the *Federal Register* for proposed species;
- species that are candidates for possible future listing as threatened or endangered under the ESA (75 CFR Section 69222);
- species that are listed, proposed for listing, or candidates for listing by the State of California as threatened or endangered under CESA of 1984 (14 CCR Section 670.5);
- plants considered by CDFW to be "rare, threatened, or endangered in California" (California Rare Plant Ranks 1A, 1B, 2A, and 2B) (CNDDB 2018; CNPS 2019);
- species that meet the definition of rare or endangered under the State CEQA Guidelines Section 15380;
- animals fully protected in California (Fish and Game Code Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians);
- animal species of special concern to CDFW;

- considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section 15125 (c)) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G); or

- species covered under the Yolo HCP/NCCP.

Special-Status Wildlife

A total of 46 special-status wildlife species have potential to occur within Yolo County (Table 3.4-2).

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
Amphibians and Reptiles				
California tiger salamander *Ambystoma californiense*	FT	ST	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Central Valley DPS federally listed as threatened. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	California tiger salamander is known to occur in Yolo County in association with wetland, vernal pool, and grassland habitat (CNDDB 2018). Suitable habitat for this species is likely present throughout the County, excluding upper elevations in the California Coast Ranges in the western portion of the County. Critical habitat for this species is present within Yolo County (see "Critical Habitat" section below and Exhibit 3.4-2).
Foothill yellow-legged frog *Rana boylii*	—	SC SSC	Aquatic, chaparral, cismontane woodland, coastal scrub, Klamath/north coast flowing waters, lower montane coniferous forest, meadow and seep, riparian forest, riparian woodland, and Sacramento/San Joaquin flowing waters. Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Foothill yellow-legged frog is known to occur in Yolo County within the Cache Creek, Davis Creek, and Putah Creek watersheds (CNDDB 2018). Suitable habitat for this species is likely present throughout these watersheds in areas with rocky substrate and other favorable conditions (e.g., part shade, shallow).
Giant garter snake *Thamnophis gigas*	FT	ST	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Giant garter snake is known to occur in northeastern Yolo County within irrigation canals, rice fields, and other drainages (CNDDB 2018). Two concentrations of giant garter snake are currently known in the County, including one near Sycamore Slough and the Colusa Basin drainage canal in the northeastern portion of the County, and one within the Yolo Bypass (Yolo Habitat Conservancy 2018).
Western pond turtle *Actinemys marmorata*	—	SSC	Aquatic, artificial flowing waters, Klamath/north coast flowing waters, Klamath/north coast standing waters, marsh and swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing and standing waters. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy	Western pond turtle is known to occur in Yolo County within the Putah Creek and Cache Creek drainages (CNDDB 2018). Western pond turtle can likely occur within any aquatic habitat in the County, including irrigation ditches and human-made ponds.

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
			open fields) upland habitat up to 0.5 kilometer from water for egg-laying.	
Western spadefoot *Spea hammondii*	—	SSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, and wetlands. Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	There are two known occurrences of western spadefoot in Yolo County west of the unincorporated town of Dunnigan along Buckeye Creek (CNDDB 2018). Western spadefoot could be present elsewhere in Yolo County within suitable vernal pool, wetland, and grassland habitat.
Birds				
American peregrine falcon *Falco peregrinus anatum*	FD	SD FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	American peregrine falcon is known to occur throughout Yolo County (eBird 2019). The species could nest and forage in various habitats throughout the County.
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Bald eagle is known to occur throughout Yolo County (eBird 2019). The species could nest and forage near aquatic habitat throughout the County.
Bank swallow *Riparia*	—	ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Bank swallow colonies are known to occur along Cache Creek and the Sacramento River in Yolo County (CNDDB 2018). Bank swallows have been observed throughout the County (eBird 2018), and likely forage over aquatic habitat such as the Yolo Bypass.
Black tern *Chlidonias niger*	—	SSC	Freshwater lakes, ponds, marshes and flooded ag fields. At coastal lagoons and estuaries during migration. Breeding range reduced. Breeds primarily in Modoc Plateau region, with some breeding in Sacramento and San Joaquin valleys	Black tern is known to occur throughout Yolo County (eBird 2019). The species could nest and forage near aquatic habitat throughout the County.
Burrowing owl *Athene cunicularia*	—	SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	There are many known occurrences of burrowing owl in Yolo County, especially in the vicinity of the city of Davis and in the southeastern portion of the County (CNDDB 2018). Suitable habitat for this species is present within grassland habitat and agricultural land throughout the County.
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	There is one known occurrence of California black rail in Yolo County; near the Sacramento River Deepwater Ship Channel (CNDDB 2018). Black rail is not common in the region but could be present in freshwater or saline emergent wetland habitat in the County.
Golden eagle *Aquila chrysaetos*	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Golden eagle is known to occur throughout Yolo County (eBird 2019). The species could nest within large trees in the County and may forage in various habitats throughout the County.

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
Grasshopper sparrow *Ammodramus savannarum*	–	SSC	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	There is one known grasshopper sparrow nesting occurrence within Yolo County (CNDDB 2018) and many observations of the species throughout the County (eBird 2018). Suitable habitat for this species is present within grasslands throughout the colony.
Least Bell's vireo *Vireo bellii pusillus*	FE	SE	Riparian forest, riparian scrub, riparian woodland. Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet, nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	The historic range of least Bell's vireo includes Yolo County. While the species was extirpated throughout much of the historic range, subsequent to listing under the Endangered Species Act, the least Bell's vireo population is expanding. Though very uncommon, several individuals have been observed in the nearby Yolo Bypass area (CNDDB 2018; eBird 2018). While the species is uncommon, it is possible that recolonization of the historic range could continue into the foreseeable future.
Least bittern *Ixobrychus exilis*	–	SSC	Marsh and swamp, wetlands. Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules, over water.	Least bittern is known to occur in some areas of Yolo County (eBird 2019). The species could nest and forage within aquatic habitats throughout the County.
Loggerhead shrike *Lanius ludovicianus*	–	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Loggerhead shrike is known to occur throughout Yolo County (eBird 2019). The species could nest and forage within shrub and grassland habitats throughout the County.
Long-eared owl *Asio otus*	–	SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Long-eared owl is known to occur throughout Yolo County (eBird 2019). The species could nest within riparian woodlands and forage throughout the County.
Mountain plover *Charadrius montanus*	–	SSC	Chenopod scrub, valley and foothill grassland. Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground and flat topography. Prefers grazed areas and areas with burrowing rodents.	Mountain plover is known to occur in grassland and agricultural land throughout Yolo County (CNDDB 2018; eBird 2018). The species could occur in these habitats throughout the County.
Northern harrier *Circus hudsonius*	–	SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Northern harrier is known to nest in Yolo County (CNDDB 2018) and utilizes grassland and agricultural foraging habitat extensively throughout the County (eBird 2018). This species could nest within grassland, chaparral, wetland, and agricultural habitat throughout the County.
Purple martin *Progne subis*	–	SSC	Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Purple martin is known to occur throughout Yolo County (eBird 2019). The species could nest within trees or human-made structures throughout the County.

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
Short-eared owl *Asio flammeus*	—	SSC	Found in swamps, lowland meadows, irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Short-eared owl is known to occur throughout Yolo County (eBird 2019). The species could nest within agricultural and grassland habitat and forage throughout the County.
Song sparrow ("Modesto" population) *Melospiza melodia*	—	SSC	Marsh and swamp, wetlands. Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (*Quercus lobata*), and vegetated irrigation canals and levees.	The "Modesto" population of song sparrow has occurred historically in Yolo County and has been observed more recently in the Yolo Bypass area (CNDDB 2018). Suitable habitat for this species is present in freshwater emergent wetlands and riparian habitat throughout the County.
Swainson's hawk *Buteo swainsoni*	—	ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	There are many known Swainson's hawk nesting occurrences in Yolo County, which is a hotspot for the species in California (CNDDB 2018). Suitable nesting habitat is present within riparian habitat and trees adjacent to grassland and agricultural habitat in the County, and foraging habitat is present in grassland and agricultural fields.
Tricolored blackbird *Agelaius tricolor*	—	ST SSC	Freshwater marsh, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	There are many known tricolored blackbird colonies in Yolo County, and suitable habitat is present within freshwater emergent wetland habitat and agricultural habitat throughout the County (CNDDB 2018).
Western snowy plover *Charadrius alexandrinus nivosus*	FT	SSC	Great Basin standing waters, sand shore, wetland. Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Western snowy plovers have been observed within habitats such as the Yolo Bypass area and water treatment facility ponds (CNDDB 2018; eBird 2018). Suitable habitat is potentially present for this species in the County, associated with wetland and aquatic habitat.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Though an uncommon species, the western yellow-billed cuckoo has been observed within the suitable riparian habitat along Putah Creek, near west campus and Russell Ranch (CNDDB 2018). Potentially suitable habitat for this species is present in riparian habitat associated with aquatic habitat in the County.
White-tailed kite *Elanus leucurus*	—	FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	There are several known nesting occurrences and many recent observations of white-tailed kite within Yolo County (CNDDB 2018; eBird 2018). Suitable nesting habitat for this species is present in riparian and oak woodland habitat throughout the County.
Yellow-breasted chat *Icteria virens*	—	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Yellow-breasted chat is known to occur throughout Yolo County (eBird 2019). The species could nest within riparian habitat throughout the County.

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
Yellow-headed blackbird *Xanthocephalus*	—	SSC	Marsh and swamp, wetland. Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as *Odonata* are abundant, nesting timed with maximum emergence of aquatic insects.	Yellow-headed blackbirds are known to occur within Yolo County, and could be present within suitable habitat such as freshwater emergent wetlands associated with the Sacramento River (CNDDB 2018; eBird 2018).
Fish				
Chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha* pop. 6	FT	ST	Aquatic. Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temperatures greater than 27°C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries.	The Central Valley spring-run ESU of chinook salmon is known to occur in Yolo County within the Sacramento River (CNDDB 2018). A spawning population of chinook salmon is present within Putah Creek; however it is not clear how these salmon fit into the existing ESUs.
Chinook salmon - Sacramento River winter-run ESU *Oncorhynchus tshawytscha* pop. 7	FE	SE	Aquatic. Sacramento/San Joaquin flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6°C and 14°C for spawning.	The Sacramento River winter-run ESU of chinook salmon is known to occur in Yolo County within the Sacramento River (CNDDB 2018).
Delta smelt *Hypomesus transpacificus*	FT	SE	Aquatic, estuary. Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities greater than 10 ppt. Most often at salinities less than 2 ppt.	Delta smelt is known to occur in Yolo County within the Sacramento River (CNDDB 2018). Critical habitat for this species is present within Yolo County (see "Critical Habitat" section below and Exhibit 3.4-2).
Eulachon *Thaleichthys pacificus*	FT	—	Aquatic, Klamath/North coast flowing waters, Sacramento River. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand and woody debris	Eulachon is known to occur in Yolo County within the Sacramento River (CNDDB 2018).
Green sturgeon *Acipenser medirostris*	FT	SSC	Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble but can range from clean sand to bedrock.	Green sturgeon is known to occur in Yolo County within the Sacramento River.
Longfin smelt *Spirinchus thaleichthys*	FC	SSC	Aquatic, estuary. Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15–30 ppt but can be found in completely freshwater to almost pure seawater.	Longfin smelt is known to occur in Yolo County within the Sacramento River (CNDDB 2018).
Sacramento splittail *Pogonichthys macrolepidotus*	—	SSC	Aquatic, estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Sacramento splittail is known to occur in Yolo County within the Sacramento and Feather Rivers (CNDDB 2018).
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT	—	Aquatic. Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	The Central Valley DPS of steelhead is known to occur in Yolo County within the Sacramento and Feather Rivers (CNDDB 2018). While Putah Creek was part of the historic steelhead

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
				watershed in the Sacramento/San Joaquin region, the creek is now anthropogenically blocked by the Putah Creek Diversion Dam. Fish populations that were once part of the anadromous steelhead population are now landlocked, and are now considered to be part of the resident, freshwater rainbow trout population.
White sturgeon *Acipenser transmontanus*	–	SSC	Live in estuaries of large rivers, moving into freshwater to spawn. Most abundant in brackish portions of estuaries. In estuaries adults concentrate in deep areas with soft bottoms.	White sturgeon is known to occur in Yolo County within the Sacramento River.
Invertebrates				
Conservancy fairy shrimp *Branchinecta conservatio*	FE	–	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	There is one known occurrence of Conservancy fairy shrimp in Yolo County, within a playa pool near the Yolo Bypass area (CNDDB 2018). This species could be found within suitable vernal pool habitat where present in the County.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	–	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	Valley elderberry longhorn beetles are known to occur in Yolo County, in association with blue elderberry shrubs in riparian habitat along Putah Creek, Cache Creek, and the Sacramento River (CNDDB 2018). Suitable habitat is present within intact or remnant riparian stands with blue elderberry shrubs.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	–	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	There are several known occurrences of vernal pool fairy shrimp in Yolo County, including wetland, grassland, and agricultural habitats with vernal pools (CNDDB 2018). This species could be found within suitable vernal pool habitat where present in the County.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	–	Valley and foothill grassland, vernal pool, wetland. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	There are several known occurrences of vernal pool tadpole shrimp in Yolo County, including wetland, grassland, and agricultural habitats with vernal pools (CNDDB 2018). This species could be found within suitable vernal pool habitat where present in the County. Critical habitat for this species is present within Yolo County (see "Critical Habitat" section below and Exhibit 3.4-2).
Mammals				
American badger *Taxidea taxus*	–	SSC	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog a fen, brackish marsh, broadleaved upland forest, chaparral, chenopod scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with	There are several known occurrences of American badger within Yolo County, and though urban and agricultural development has likely excluded this species from much of the historic range in the County, badgers are likely present within the relatively contiguous grassland habitat

Table 3.4-2 Special-Status Animal Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]		Habitat	Occurrence in Yolo County
	Federal	State		
			friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	in less developed portion of the County (CNDDB 2018).
Pallid bat *Antrozous pallidus*	–	SSC	Chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	There are two known historic occurrences of pallid bat in Yolo County (CNDDB 2018). Potentially suitable habitat for the species is present within large trees on the valley floor and rocky habitat in the western portion of the County.
Townsend's big-eared bat *Corynorhinus townsendii*	–	SSC	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Townsend's big-eared bats are known to occur within Yolo County, and have been documented in the western portion of the County (CNDDB 2018). Suitable habitat for Townsend's big-eared bat in the County includes human-made structures such as mines and buildings associated with urban or agricultural development.
Western red bat *Lasiurus blossevillii*	–	SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Western red bats are known to occur within Yolo County and have been documented in the western portion of the County (CNDDB 2018). Suitable habitat for western red bat in the County includes broadleaf trees such as cottonwood or sycamore, as well as orchard trees.

Notes: CNDDB = California Natural Diversity Database; DPS = distinct population segment; ESU = evolutionarily significant unit; ppt = parts per thousand.

[1] Legal Status Definitions

Federal:
- FE Endangered (legally protected)
- FT Threatened (legally protected)
- FC Candidate for Listing
- FD Delisted

State:
- FP Fully protected (legally protected)
- SSC Species of special concern (no formal protection other than CEQA consideration)
- SE Endangered (legally protected)
- ST Threatened (legally protected)
- SC Candidate for Listing
- SD Delisted

Sources: CNDDB 2018; eBird 2018; eBird 2019

Special-Status Plants

A total of 34 special-status plant species occur within Yolo County (Table 3.4-3).

Table 3.4-3 Special-Status Plant Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]			Habitat
	Federal	State	CRPR	
Bent-flowered fiddleneck *Amsinckia lunaris*	–	–	1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10 to 2,608 feet in elevation. Blooms March-June.
Jepson's milk-vetch *Astragalus rattanii* var. *jepsonianus*	–	–	1B.2	Cismontane woodland, valley and foothill grassland, chaparral. Commonly on serpentine in grassland or openings in chaparral. 574 to 3,297 feet in elevation. Blooms March-June.
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*	–	–	1B.1	Wetland. Meadows and seeps, valley and foothill grassland. Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil. 16 to 246 feet in elevation. Blooms April-May.
Alkali milk-vetch *Astragalus tener* var. *tener*	–	–	1B.2	Wetland. Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0 to 551 feet in elevation. Blooms March-June.
Heartscale *Atriplex cordulata* var. *cordulata*	–	–	1B.2	Chenopod scrub, valley and foothill grassland, meadows and seeps. Alkaline flats and scalds in the Central Valley, sandy soils. 10 to 902 feet in elevation. Blooms April-October.
Brittlescale *Atriplex depressa*	–	–	1B.2	Alkali playa, wetland. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 3 to 1,066 feet in elevation. Blooms April-October.
Lagoon sedge *Carex lenticularis* var. *limnophila*	–	–	2B.2	Bogs and fens, marshes and swamps, north coast coniferous forest. Lakeshores, beaches. Often in gravelly substrates. 0 to 20 feet in elevation. Blooms June-August.
Pink creamsacs *Castilleja rubicundula* var. *rubicundula*	–	–	1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine. 66 to 3,002 feet in elevation. Blooms April-June.
Pappose tarplant *Centromadia parryi* ssp. *parryi*	–	–	1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 7 to 1,378 feet in elevation. Blooms May-November.
Palmate-bracted bird's-beak *Chloropyron palmatum*	FE	SE	1B.1	Chenopod scrub, valley and foothill grassland, meadow and seep, wetland. Usually on Pescadero silty clay, which is alkaline, with *Distichlis*, *Frankenia*, etc. 16 to 509 feet in elevation. Blooms May-October.
Deep-scarred cryptantha *Cryptantha excavata*	–	–	1B.3	Cismontane woodland. Sandy, gravelly, dry streambanks. 328 to 1,640 feet in elevation. Blooms April-May.
Snow Mountain buckwheat *Eriogonum nervulosum*	–	–	1B.2	Chaparral. Dry serpentine outcrops, balds, and barrens. 1,460 to 6,906 feet in elevation. Blooms June-September.
Jepson's coyote-thistle *Eryngium jepsonii*	–	–	1B.2	Vernal pools, valley and foothill grassland. Clay. 10 to 984 feet in elevation. Blooms April-August.
San Joaquin spearscale *Extriplex joaquinana*	–	–	1B.2	Alkali playa. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata*, *Frankenia*, etc. 3 to 2,740 feet in elevation. Blooms April-October.
Adobe-lily *Fritillaria pluriflora*	–	–	1B.2	Chaparral, cismontane woodland, foothill grassland. Usually on clay soils; sometimes serpentine. 148 to 3,100 feet in elevation. Blooms February-April.
Hall's harmonia *Harmonia hallii*	–	–	1B.2	Chaparral. Serpentine hills and ridges. Open, rocky areas within chaparral. 1,099 to 3,051 feet in elevation. Blooms April-June.

Table 3.4-3 Special-Status Plant Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]			Habitat
	Federal	State	CRPR	
Drymaria-like western flax *Hesperolinon drymarioides*	—	—	1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland. Serpentine soils, mostly within chaparral. 1,296 to 6,562 feet in elevation. Blooms May-August.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	—	—	1B.2	Wetland. Marshes and swamps (freshwater). Moist, freshwater-soaked river banks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the Delta watershed. 0 to 509 feet in elevation. Blooms June-September.
Northern California black walnut *Juglans hindsii*	—	—	1B.1	Riparian forest, riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0 to 2,100 feet in elevation. Blooms April-May.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	—	—	1B.1	Alkali playa, wetland. Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 3 to 4,511 feet in elevation. Blooms February-June.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	—	—	1B.2	Wetland. Freshwater and brackish marshes. Often found with *Typha*, *Aster lentus*, *Rosa californica*, *Juncus* spp., *Scirpus*, etc. Usually on marsh and slough edges. 0 to 16 feet in elevation. Blooms May-September.
Colusa layia *Layia septentrionalis*	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 49 to 3,609 feet in elevation. Blooms April-May.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	—	—	1B.2	Valley and foothill grassland, vernal pools. Grassland, and sometimes vernal pool edges. Alkaline soils. 3 to 98 feet in elevation. Blooms March-May.
Jepson's leptosiphon *Leptosiphon jepsonii*	—	—	1B.2	Chaparral, cismontane woodland. Open to partially shaded grassy slopes. On volcanics or the periphery of serpentine substrates. 180 to 2,805 feet in elevation. Blooms March-May.
Mason's lilaeopsis *Lilaeopsis masonii*	—	—	1B.1	Wetland. Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0 to 33 feet in elevation. Blooms April-November.
Baker's navarretia *Navarretia leucocephala* ssp. *bakeri*	—	—	1B.1	Wetland. Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 16 to 5,709 feet in elevation. Blooms April-July.
Colusa grass *Neostapfia colusana*	FT	SE	1B.1	Vernal pools, wetland. Usually in the bottoms of large, or deep vernal pools; adobe soils. 16 to 410 feet in elevation. Blooms May-August. Critical habitat for this species is present within Yolo County (see "Critical Habitat" section below and Exhibit 3.4-2).
Bearded popcornflower *Plagiobothrys hystriculus*	—	—	1B.1	Wetland. Vernal pools, valley and foothill grassland. Wet sites. 0 to 902 feet in elevation. Blooms April-May.
California alkali grass *Puccinellia simplex*	—	—	1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. 3 to 3002 feet in elevation. Blooms March-May.
Keck's checkerbloom *Sidalcea keckii*	FE	—	1B.1	Cismontane woodland, valley and foothill grassland. Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. 279 to 1,657 feet in elevation. Blooms April-June.
Green jewelflower *Streptanthus hesperidis*	—	—	1B.2	Chaparral, cismontane woodland. Openings in chaparral or woodland; serpentine, rocky sites. 787 to 2,510 feet in elevation. Blooms May-July.
Suisun Marsh aster *Symphyotrichum lentum*	—	—	1B.2	Wetland. Marshes and swamps (brackish and freshwater). Most often seen along sloughs with *Phragmites*, *Scirpus*, blackberry, *Typha*, etc. 0 to 98 feet in elevation. Blooms April-November.

Table 3.4-3 Special-Status Plant Species Known to Occur in Yolo County and Their Potential for Occurrence

Species	Listing Status[1]			Habitat
	Federal	State	CRPR	
Saline clover *Trifolium hydrophilum*	–	–	1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0 to 984 feet in elevation. Blooms April-June.
Crampton's tuctoria or Solano grass *Tuctoria mucronata*	FE	SE	1B.1	Wetland. Vernal pools, valley and foothill grassland. Clay bottoms of drying vernal pools and lakes in valley grassland. 16 to 49 feet in elevation. Blooms April-August. Critical habitat for this species is present within Yolo County (see "Critical Habitat" section below and Exhibit 3.4-2).

Notes: CRPR = California Rare Plant Rank.

[1] Legal Status Definitions

Federal:

FE Endangered (legally protected by ESA)

FT Threatened (legally protected by ESA)

State:

SE Endangered (legally protected by CESA)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Sources: CNDDB 2018; CNPS 2019

CRITICAL HABITAT

Critical habitat is a specific, formally designated geographic area(s) that contains physical or biological features essential for the conservation of a threatened or endangered species and that may require special management and protection during federal actions. The critical habitat designation imposes no requirements on private or state actions on private or state lands where no federal funding, permits or approvals are required. Critical habitat may include an area that is not currently occupied by the species but that may be needed for recovery. Areas shown on maps as critical habitat units, as designated by the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), are often larger than the areas that actually support habitat for the species: only those areas within the critical habitat units that provide the essential physical or biological features are subject to ESA Section 7 consultation. Critical habitat for five species (one amphibian, one fish, one invertebrate, and two plants) is present within Yolo County (Exhibit 3.4-2).

California Tiger Salamander

There are approximately 2,731 acres of critical habitat for California tiger salamander in Yolo County, located within vernal pool habitat in the Dunnigan Hills, west of I-5 in the northern portion of the County (Exhibit 3.4-2).

Delta Smelt

There are approximately 92,005 acres of critical habitat for delta smelt in Yolo County, encompassing the Sacramento River watershed south of and including West Sacramento (Exhibit 3.4-2).

Vernal Pool Tadpole Shrimp

There are approximately 440 acres of critical habitat for vernal pool tadpole shrimp in Yolo County within a vernal pool area southeast of the city of Davis. This critical habitat area also serves as critical habitat for two federally listed plant species: Colusa grass (*Neostapfia colusana*) and Solano grass (*Tuctoria mucronata*) (Exhibit 3.4-2).

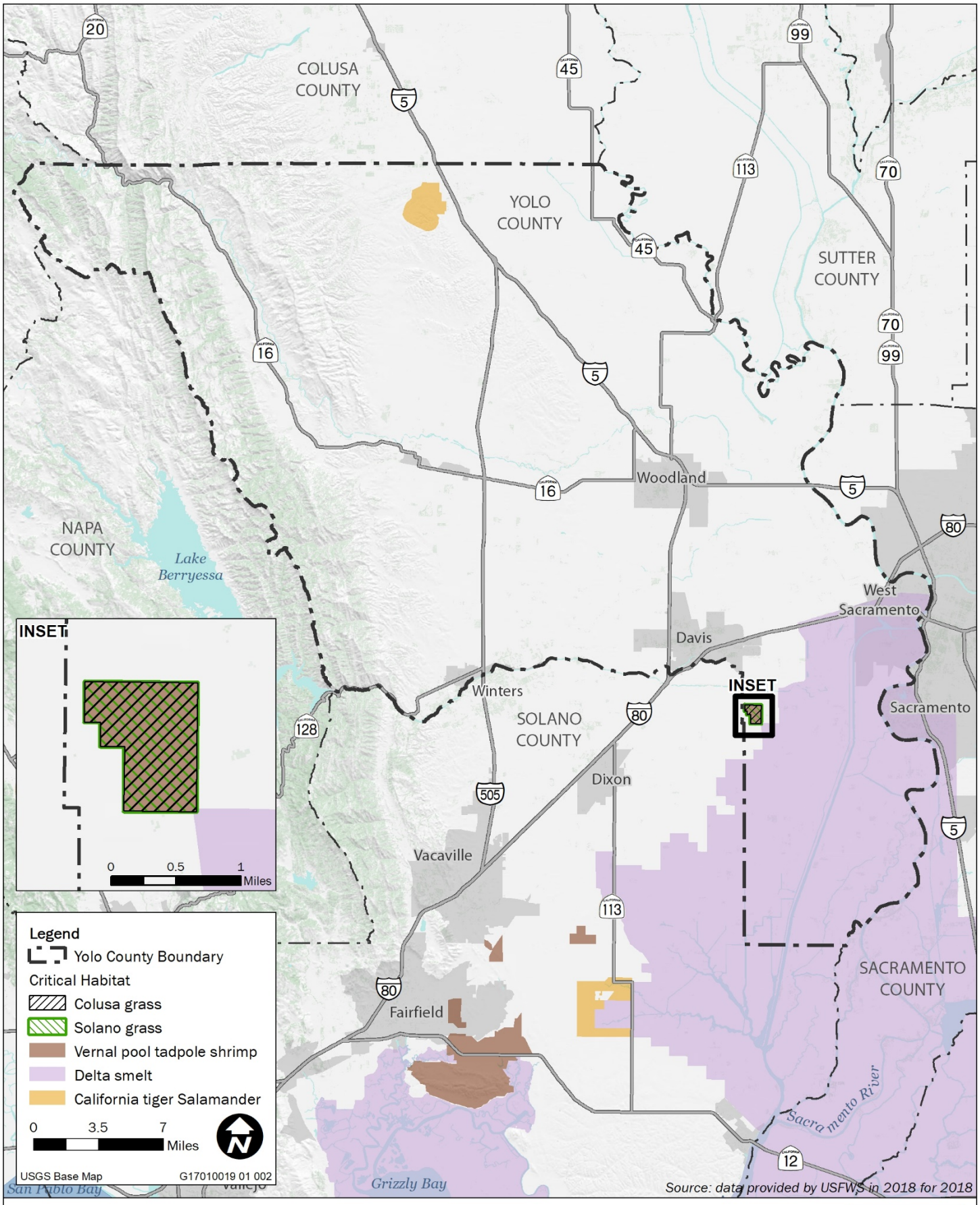


Exhibit 3.4-2 **Critical Habitat Map**

Colusa Grass

There are approximately 440 acres of critical habitat for Colusa grass in Yolo County within a vernal pool area southeast of the city of Davis. This critical habitat area also serves as critical habitat for vernal pool tadpole shrimp and Solano grass (Exhibit 3.4-2).

Solano Grass

There are approximately 440 acres of critical habitat for Solano grass in Yolo County within a vernal pool area southeast of the city of Davis. This critical habitat area also serves as critical habitat for vernal pool tadpole shrimp and Colusa grass (Exhibit 3.4-2).

SENSITIVE NATURAL COMMUNITIES

Sensitive habitat types include those that are of special concern to CDFW, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and Section 404 of the Clean Water Act (CWA), as discussed in Section 3.4.2, "Regulatory Setting," below. Sensitive habitats may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species.

CDFW maintains a list of plant communities that are native to California. Within that list, CDFW identifies special-status plant communities (i.e., sensitive natural communities), which it defines as communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitat. Special-status plant communities are tracked in the CNDDB. Four sensitive natural communities were reported in the CNDDB and occur within Yolo County (Exhibit 3.4-3).

Great Valley Cottonwood Riparian Forest

Great valley cottonwood riparian forest is a dense, deciduous riparian forest dominated by Fremont cottonwood and willow. The understory of this habitat is typically dense, and may include California grape, box elder, or Oregon ash. This habitat is associated with streams and rivers and is limited to isolated remnants in the Sacramento Valley (Holland 1986). Great valley cottonwood riparian forest is present in the in the city of West Sacramento adjacent to the Sacramento River (Exhibit 3.4-3).

Great Valley Mixed Riparian Forest

Great valley mixed riparian forest contains several tree species, including Fremont cottonwood, box elder, Oregon ash, willow, California sycamore, and California walnut. This habitat is associated with streams and rivers and is limited to isolated remnants in the Sacramento Valley (Holland 1986). Great valley mixed riparian forest habitat is present in the northeastern portion of Yolo County adjacent to the Sacramento River (Exhibit 3.4-3).

Elderberry Savanna

Elderberry savanna is dominated by blue elderberry and typically has an understory of various grasses and forbs. This habitat has a patchy distribution throughout the Sacramento valley and is associated with surviving stands of riparian vegetation (Holland 1986). Elderberry savanna habitat is present in the city of West Sacramento adjacent to the Sacramento River (Exhibit 3.4-3). Blue elderberry shrubs provide habitat for valley elderberry longhorn beetle, which is listed as threatened under the ESA.

Valley Oak Woodland

Valley oak woodland is typically dominated by valley oak, which is often the only tree species present in the habitat (Holland 1986). Valley oak woodland habitat is present in Yolo County adjacent to SR 113 (Exhibit 3.4-3).

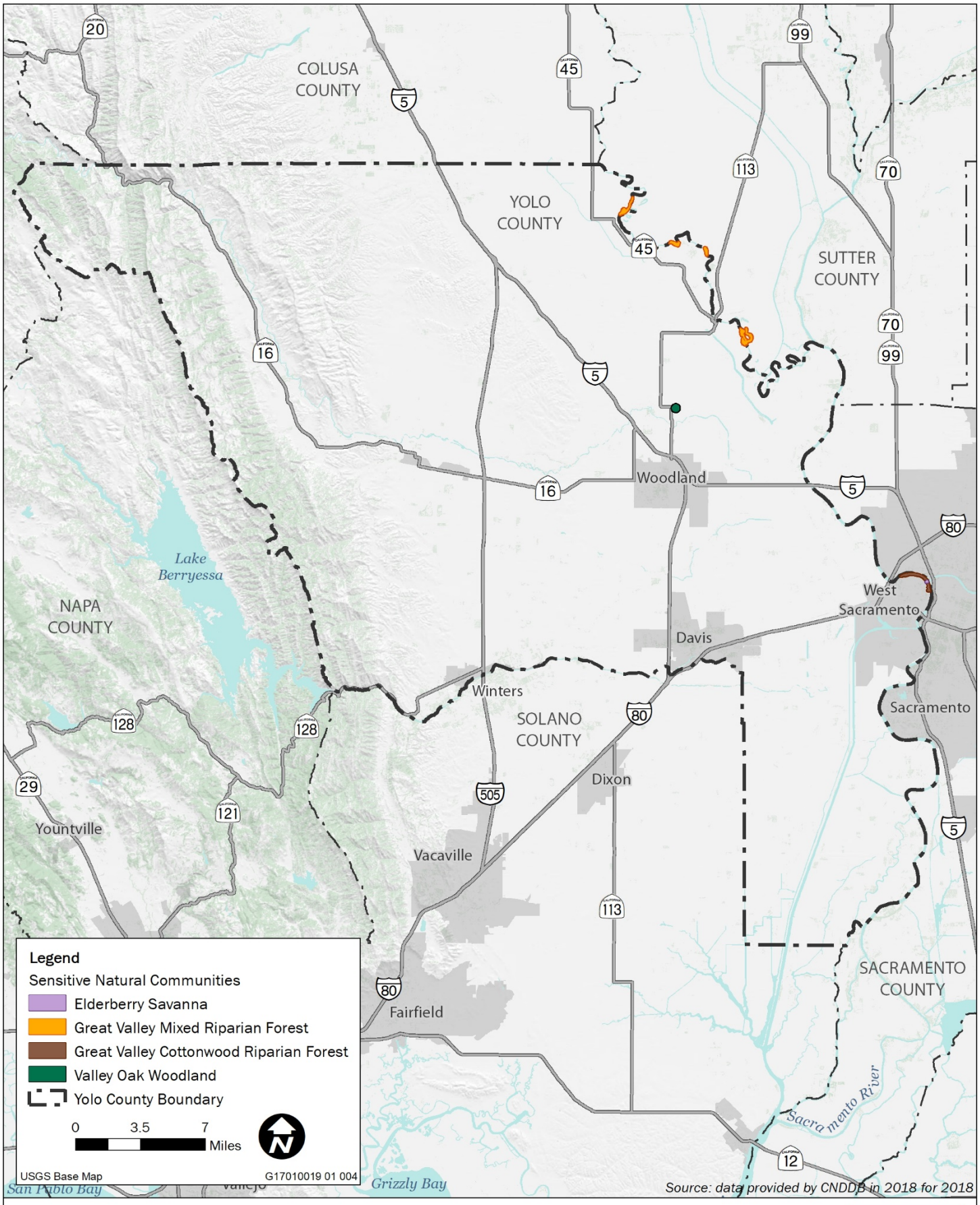


Exhibit 3.4-3 **Sensitive Natural Communities**

INVASIVE PLANT SPECIES

An invasive plant is one that is not native to a region, but rather is introduced, and has a tendency to crowd out native vegetation and thereby adversely affect the wildlife that feeds on it. There have been efforts to remove invasive plant species, such as tamarisk and giant reed (*Arundo donax*) within the Cache Creek and Putah Creek watersheds as well as species like perennial pepperweed and yellow star thistle (*Centaurea solstitialis*) from grassland areas. Invasive plants can threaten grassland habitat and can adversely affect streambank habitat for breeding fish.

WATERS OF THE UNITED STATES AND STATE

Yolo County includes a portion of the Sacramento River watershed, as well as Cache Creek and Putah Creek (Exhibit 3.4-1). Other aquatic features within the County include smaller creeks, canals, sloughs, and irrigation ditches; as well as human-made reservoirs (e.g., Davis Creek Reservoir) and ponds. Many of these aquatic features have nearby associated wetland habitat, including saline and freshwater wetlands, and approximately 5,462 acres of sensitive riparian habitat (see "Land Cover Types" section, above).

CANNABIS PRIORITY WATERSHEDS

The State Water Resources Control Board (SWRCB) in coordination with CDFW have identified "Cannabis Priority Watersheds" throughout the state. All Cannabis Priority Watersheds contain a high concentration of cannabis cultivation; noncompliant cannabis cultivation in these high-value areas has the potential to cause severe environmental impacts. Pursuant to CCR Section 8216, if SWRCB or CDFW notifies the California Department of Food and Agriculture (CDFA) in writing that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area pursuant to Section 26069, Subdivision (c)(1), of the Business and Professions Code, CDFA shall not issue new licenses or increase the total number of plant identifiers within that watershed or area while the moratorium is in effect.

A "Cannabis Priority Watershed" may also meet some or all of the following criteria:

- Contains or supports critical habitat for terrestrial or aquatic species (see "Critical Habitat" section, above);
- Contains water courses with low flow conditions where water levels recede or are at risk of receding into the "danger zone" for aquatic life. These are survival-level flows at which aquatic habitat and species will be harmed;
- Contains a critical water supply, where excessive water usage or diversions present unreasonable stress or pose a significant threat to the long-term and sustainable water use;
- Has complaints that allege cannabis cultivation that contributes to or causes natural resources violations, or that affects senior water right holders;
- Is part of past or ongoing restoration efforts;
- Is listed under CWA Section 303(d) as an impaired waterbody;
- Contains surface water body that is listed as a fully appropriated stream; and
- Contains a waterbody is designated as a "Wild and Scenic River" pursuant to the PRC Section 5093.

The Upper Cache Creek watershed has been designated as a Cannabis Priority Watershed in the northwestern portion of Yolo County (see Exhibit 3.4-4).

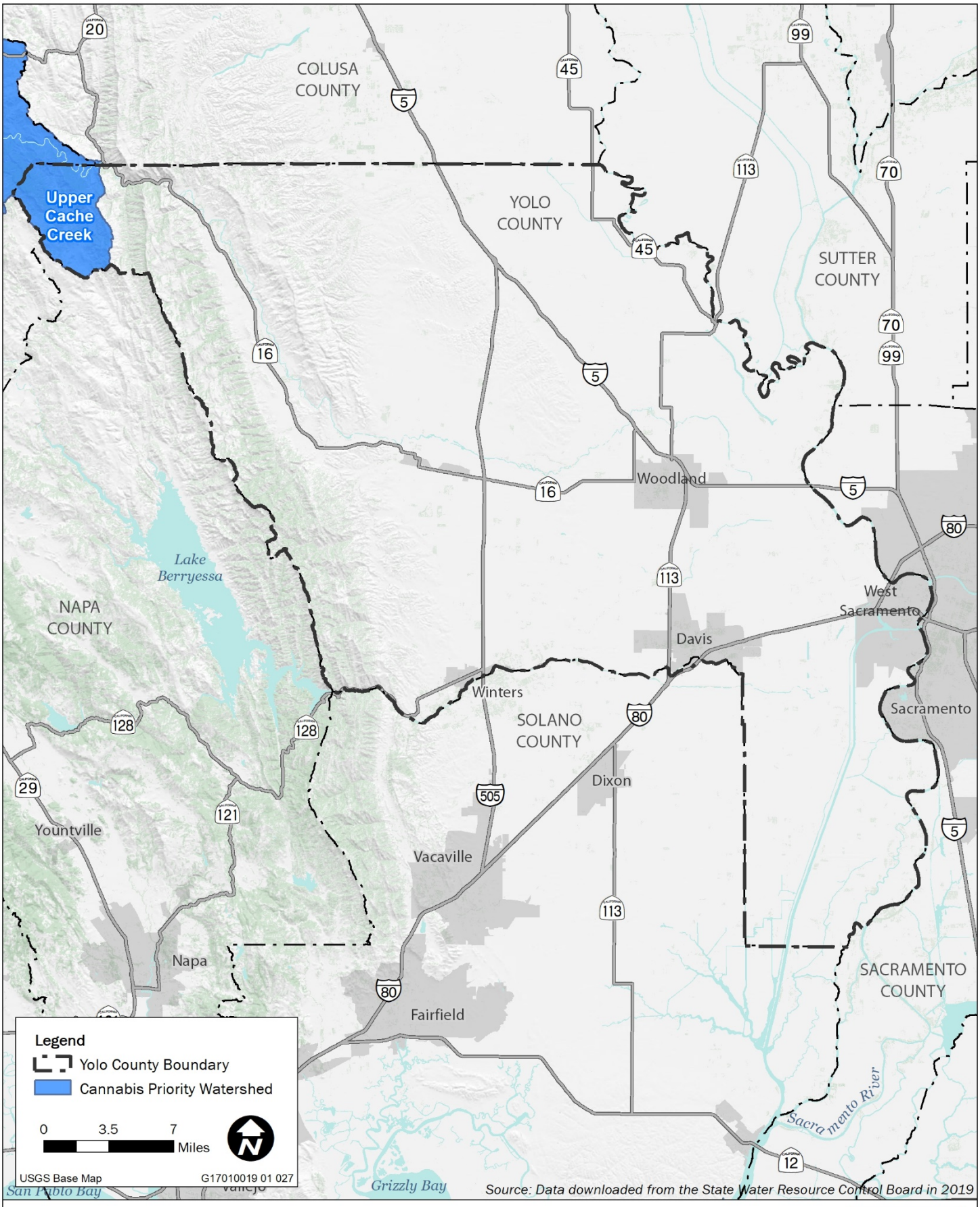


Exhibit 3.4-4 **Cannabis Priority Watershed**

WILDLIFE MOVEMENT CORRIDORS

The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation and CDFW with the purpose of making transportation and land-use planning more efficient and less costly, while helping reduce dangerous wildlife-vehicle collisions (Spencer et al. 2010). This project included mapping Essential Connectivity Areas (ECAs).

Yolo County contains several areas of relatively undisturbed wildlife habitat, including the California Coast Ranges, the Dunnigan Hills, and the Sacramento River, including the Yolo Bypass (Exhibit 3.4-5). As shown in Exhibit 3.4-5, ECAs occur within these portions of Yolo County, especially within the western portion of the County. The ECAs are not regulatory delineations and are identified as lands likely important to wildlife movement between large, mostly natural areas at the statewide level. The ECAs form a functional network of wildlands that are important to the continued support of California's diverse natural communities.

3.4.2 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the ESA (16 USC Section 1531 et seq.), USFWS and NMFS regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to the ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Clean Water Act

Section 404 of the CWA requires project proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Many surface waters and wetlands in California meet the criteria for waters of the United States, including lakes, rivers, and wetlands. In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act, enacted in 1940 and amended multiple times since, prohibits the taking of bald and golden eagles without a permit from the Secretary of the Interior. Like the ESA, the Bald and Golden Eagle Protection Act defines "take" to include "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" (16 USC 668-668c). For the purpose of the act, disturbance that would injure an eagle, decrease productivity, or cause nest abandonment, including habitat alterations that could have these results, are considered take and can result in civil or criminal penalties.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities."

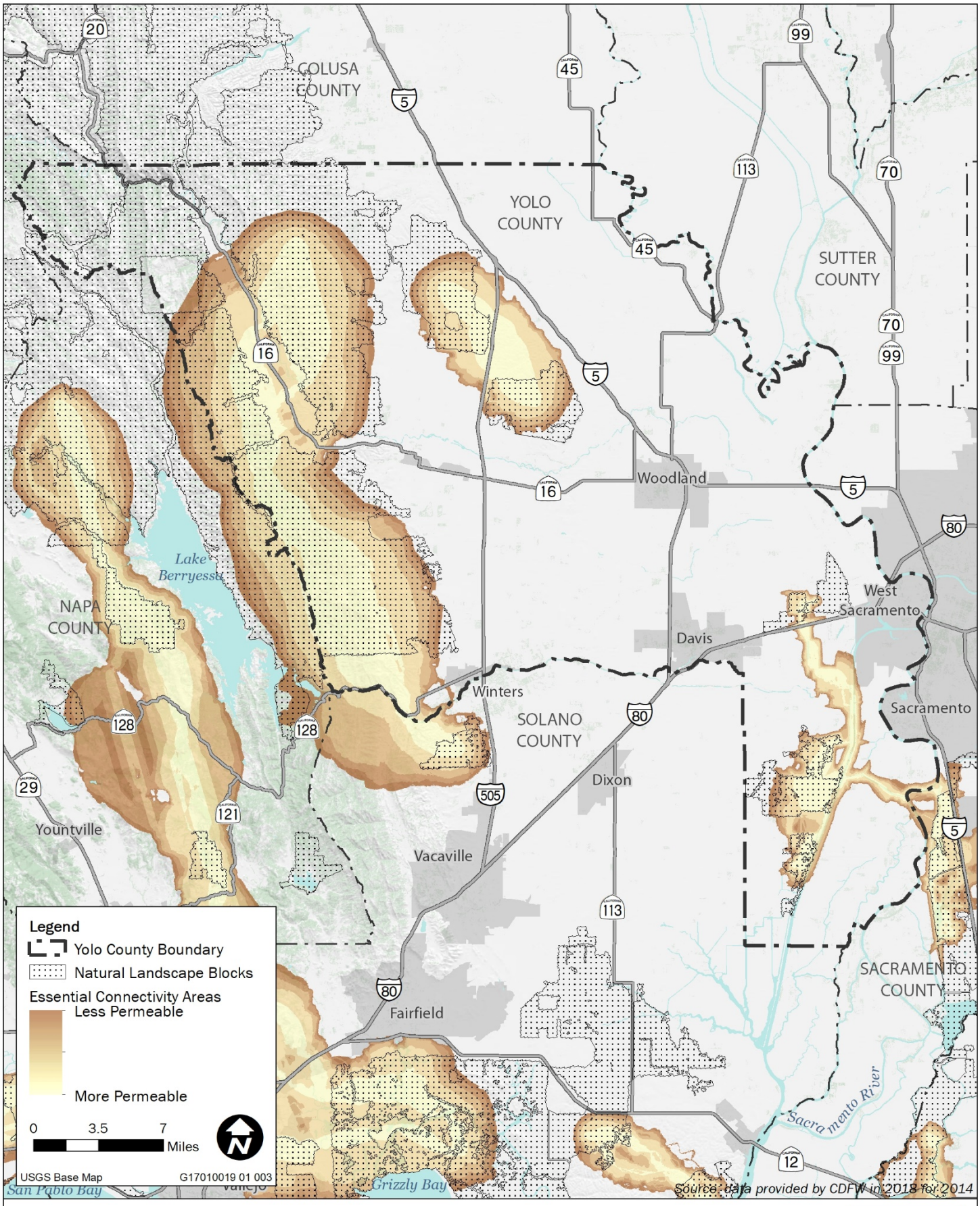


Exhibit 3.4-5 **Habitat Connectivity**

STATE

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters as well as areas that meet the definition of "waters of the state." Waters of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 of the CWA provided they meet the definition of waters of the state. Actions that affect waters of the state, including wetlands, must meet the RWQCB's waste discharge requirements.

On April 2, 2019, the SWRCB adopted the proposed State Wetland Definition and Procedures for Discharges of Dredge or Fill Material to Waters of the State. Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. This includes all waters of the United States, but also areas not regulated under the federal Clean Water Act. The State Water Resources Control Board (2019) defines an area as a wetland as follows:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater or shallow surface water or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

State Water Resources Control Board Order WQ 2019-0001-DWQ

Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Wastes Associated with Cannabis Cultivation Activities, includes the following requirements (terms) for state-licensed cultivation sites that are associated with biological resources. The reader is referred to Section 3.10, "Hydrology and Water Quality," for requirements associated with protection of water quality and surface water flows.

The entire order is available for review at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf

- Term 1. Prior to commencing any cannabis cultivation activities, including cannabis cultivation land development or alteration, the cannabis cultivator shall comply with all applicable federal, state, and local laws, regulations, and permitting requirements, as applicable, including but not limited to the following:

    - The Clean Water Act (CWA) as implemented through permits, enforcement orders, and self-implementing requirements. When needed per the requirements of the CWA, the cannabis cultivator shall obtain a CWA section 404 (33 U.S.C. § 1344) permit from the United States Army Corps of Engineers (Army Corps) and a CWA section 401 (33 U.S.C. § 1341) water quality certification from the State Water Board or the Regional Water Board with jurisdiction. If the CWA permit cannot be obtained, the cannabis cultivator shall contact the appropriate Regional Water Board or State Water Board prior to commencing any cultivation activities. The Regional Water Board or State Water Board will determine if the cannabis cultivation activity and discharge is covered by the Requirements in the Policy and Cannabis General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis Cultivation General Order).

    - The California Water Code as implemented through applicable water quality control plans (often referred to as Basin Plans), waste discharge requirements (WDRs) or waivers of WDRs, enforcement orders, and self-implementing requirements issued by the State Water Resources Control Board (State Water Board) or Regional Water Quality Control Boards (Regional Water Boards).

- All applicable state, city, county, or local regulations, ordinances, or license requirements including, but not limited to those for cannabis cultivation, grading, construction, and building.

- All applicable requirements of the California Department of Fish and Wildlife (CDFW).

- All applicable requirements of the California Department of Forestry and Fire Protection (CAL FIRE), including the Board of Forestry.

- California Environmental Quality Act and the National Environmental Policy Act.

- Term 3. The cannabis cultivator shall apply for a Lake and Streambed Alteration Agreement (LSA Agreement) or consult with CDFW to determine if a LSA Agreement is needed prior to commencing any activity that may substantially:

  - divert or obstruct the natural flow of any river, stream, or lake;
  - change or use any material from the bed, channel, or bank of any river, stream, or lake; or
  - deposit debris, waste, or other materials that could pass into any river stream or lake

  "Any river, stream or lake," as defined by CDFW, includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

- Term 4. Cannabis cultivators shall not take any action which results in the taking of Special-Status Plants (state listed and California Native Plant Society 1B.1 and 1B.2), Fully Protected species (Fish and Game Code sections 3511, 4700, 5050, and 5515), or a threatened, endangered, or candidate species under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050 et seq.) or the federal ESA (16 U.S.C. § 1531 et seq.). If a "take," as defined by the California ESA (Fish and Game Code section 86) or the federal ESA (16 U.S.C. § 1532(21)), may result from any act authorized under this Policy, the cannabis cultivator must obtain authorization from CDFW, National Marine Fisheries Service, and United States Fish and Wildlife Service, as applicable, to incidentally take such species prior to land disturbance or operation associated with the cannabis cultivation activities. The cannabis cultivator is responsible for meeting all requirements under the California ESA and the federal ESA.

- Term 10. Prior to commencing any cannabis land development or site expansion activities, the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a nodisturbance buffer to protect identified sensitive plant, wildlife species, and communities. A copy of the report shall be submitted to the appropriate Regional Water Board.

- Term 11. To prevent transfer of invasive species,5 all equipment used at the cannabis cultivation site, including excavators, graders, etc., shall be cleaned before arriving and before leaving the site.

- Term 37. Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, off-stream water storage areas, and chemical toilet placement). The riparian setbacks shall be measured from the waterbody's bankfull stage (high flow water levels that occur every 1.5 to 2 years) or from the top edge of the waterbody bank in incised channels, whichever is more conservative. Riparian setbacks for springheads shall be measured from the springhead in all directions (circular buffer). Riparian setbacks for wetlands shall be measured from the edge of wetland as delineated by a Qualified Professional with experience implementing the Corps of Engineers Wetlands Delineation Manual (with regional supplements). The Regional Water Board Executive Officer may require additional riparian setbacks or additional requirements, as needed, to meet the performance

requirement of protecting surface water from discharges that threaten water quality. If the cannabis cultivation site cannot be managed to protect water quality, the Executive Officer of the applicable Regional Water Board may revoke authorization for cannabis cultivation activities at the cannabis cultivation site.

California Endangered Species Act

Pursuant to CESA, a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the CESA definition of take does not include "harm" or "harass," like the ESA definition does. As a result, the threshold for take is higher under CESA than under the ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Native Plant Protection Act of 1977

The California Native Plant Protection Act (NPPA) (Fish and Game Code Sections 1900–1913) prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the NPPA, which ensures that state-listed plant species are protected when state agencies are involved and projects are subject to CEQA. In this case, plants listed as rare under the NPPA are not protected under CESA, but rather may receive protection in response to significant impacts, in accordance with CEQA.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests because of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

California Fish and Game Code —Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code describe the take prohibitions for fully protected birds, mammals, reptiles and amphibians, and fish. Species listed under these statutes may not be taken or possessed at any time and no incidental take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

California Fish and Game Code Section 1602—Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake; or

- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW streambed alteration agreement must be obtained for any action that would result in an impact on a river, stream, or lake.

Oak Woodlands Conservation Act

The Oak Woodlands Conservation Act was signed into California law on September 24, 2004. Section 21083.4 of the California Public Resources Code requires counties to determine if a project within their jurisdiction may result in conversion of oak woodlands that would have a significant adverse effect on the environment. If the County determines that a project would result in a significant adverse effect on oak woodlands, mitigation measures to reduce the significant adverse effect of converting oak woodlands to other land uses are required.

Delta Protection Act of 1992

The Delta Protection Act (California Water Code Section 12220) established the Delta Protection Commission. The Delta Reform Act of 2009 amended the 1992 act in November 2009. The commission has land use planning jurisdiction over the Delta Primary Zone, which generally consists of lands in the central portion of the Delta that were not within either the urban limit line or sphere of influence of any local government's general plan. The Primary Zone, which comprises 487,625 acres, or approximately 66 percent, of the Delta, encompasses portions of San Joaquin, Contra Costa, Solano, Yolo, and Sacramento Counties. Lands in Yolo County that are overlaid by the Primary and Secondary Delta Zones are comprised of areas in the southeastern corner of the County, which includes lands that are part of the Yolo Bypass.

The Delta Protection Commission is charged with preparing a regional plan for the Primary Zone to address land uses and resources management, with particular emphasis on agriculture, which was designated by the Delta Protection Act as the primary use of this zone. This plan, the Land Use & Resource Management Plan, provides guidance to local governments. Specifically, Land Use Policy P-2 and Agriculture Policies P-1 through P-10 address the role of local governments in preserving and protecting long-term agricultural viability and open space values in the Primary Zone through implementation of general plan policies and zoning codes.

LOCAL

Yolo Habitat Conservation Plan/Natural Community Conservation Plan

The HCP/NCCP and accompanying environmental impact statement/environmental impact report (EIS/EIR) was approved by the County and other local agency participants in 2018. The Yolo HCP/NCCP became effective January 11, 2019 upon receipt of final approval by state and federal wildlife agencies. The Yolo HCP/NCCP is available for review at: https://www.yolohabitatconservancy.org/. The Yolo HCP/NCCP allows for the incidental take of 12 specified species listed under the federal ESA and CESA, subject to conditions. The HCP/NCCP is implemented by the Yolo Habitat Conservancy, a joint powers agency composed of Yolo County, and the four incorporated cities within the County (Davis, West Sacramento, Woodland, and Winters). The HCP/NCCP planning area includes the entirety of Yolo County which is approximately 653,500 acres. The plan also includes conservation activities outside of Yolo County within an additional 1,174 acres along Putah Creek in Solano County. The plan provides coverage for 12 species: eight state-listed or federally listed species and four species that are not listed but could become listed during the 50-year term of the plan. The covered species are palmate-bracted bird's beak (*Chloropyron palmatum*), valley elderberry longhorn beetle, California tiger salamander, western pond turtle, giant garter snake, Swainson's hawk, white-tailed kite, western yellow-billed cuckoo, burrowing owl, least Bell's vireo (*Vireo bellii pusillus*), bank swallow, and tricolored blackbird.

For covered activities and species, the Yolo HCP/NCCP requires land cover mapping and planning-level surveys to determine the potential for presence of sensitive natural resources, including covered species, and payment of applicable fees. If these resources are determined to be present or likely to be present, the Yolo HCP/NCCP requires applicants to conduct protocol-level surveys for these resources. Applicants must incorporate Avoidance and Minimization Measures (AMMs) to minimize impacts on sensitive natural communities, wetlands, waters of the United States and state, and covered plant and wildlife species. Implementation of AMMs may include designing projects to avoid sensitive natural resources, worker training, implementing no-disturbance buffers, avoiding work during certain times of the year (e.g.,

Swainson's hawk breeding season), and/or biological monitoring. The Yolo HCP/NCCP provides take coverage under CESA (Natural Community Conservation Planning Act [NCCPA]) and the ESA (Section 10) for covered species.

Because cannabis operations are currently illegal under federal law, cannabis activities are not considered covered activities under the HCP portion of the Yolo HCP/NCCP for federally listed species, and coverage could not be extended for impacts on federally listed species. Until cannabis activities are legalized at the federal level, the effect of this is that incidental take coverage is not available for the six covered species with federal listing status: (even if separately listed under CESA) (palmate-bracted bird's beak, valley elderberry longhorn beetle, California tiger salamander, giant garter snake, western yellow-billed cuckoo, and least Bell's vireo).

Yolo County 2030 Countywide General Plan

Yolo County 2030 Countywide General Plan (General Plan) policies specific to biological resources and potentially relevant to the adoption and implementation of the proposed CLUO are identified below:

- **Policy CO-2.1**: Consider and maintain the ecological function of landscapes, connecting features, watersheds, and wildlife movement corridors.

- **Policy CO-2.2**: Focus conservation efforts on high priority conservation areas (core reserves) that consider and promote the protection and enhancement of species diversity and habitat values, and that contribute to sustainable landscapes connected to each other and to regional resources.

- **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 populations by preserving and enhancing habitats for special-status species.

- **Policy CO-2.5**: Protect, restore, and enhance habitat for sensitive fish species, so long as it does not result in the large-scale conversion of existing agricultural resources.

- **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-2.11:** Ensure that open space buffers are provided between sensitive habitat and planned development.

- **Policy CO-2.13:** Promote the use of oak woodlands conservation banks to mitigate for losses due to development impacts and to provide carbon sequestration for greenhouse gas emission sunder applicable State programs.

- **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-2.16:** Existing native vegetation shall be conserved where possible and integrated into new development if appropriate.

- **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-2.18:** Coordinate with the Yolo County Resource Conservation District, Natural Resources Conservation Service, UC Cooperative Extension, and other farm organizations to encourage farming practices and the management of private agricultural land that is supportive of wildlife habitat values.
- **Policy CO-2.19:** Support the use of sustainable farming methods that minimize the use of products such as pesticides, fuels, and petroleum-based fertilizers.
- **Policy CO-2.20:** Encourage the use of wildlife-friendly Best Management Practices to minimize unintentional killing of wildlife, such as restricting mowing during nesting season for ground-nesting birds or draining of flooded fields before fledging of wetland species.
- **Policy CO-2.21:** Promote wildlife-friendly farming through mechanisms such as farm-land trusts, conservation easements, and safe harbor-type agreements.
- **Policy CO-2.22:** Prohibit development within a minimum of 100 feet from the top of banks for all lakes, perennial ponds, rivers, creeks, sloughs, and perennial streams. A larger setback is preferred. The setback will allow for fire and flood protection, a natural riparian corridor (or wetland vegetation), a planned recreational trail where applicable, and vegetated landscape for stormwater to pass through before it enters the water body. Recreational trails and other features established in the setback should be unpaved and located along the outside of the riparian corridors whenever possible to minimize intrusions and maintain the integrity of the riparian habitat. Exceptions to this action include irrigation pumps, roads and bridges, levees, docks, public boat ramps, and similar uses, so long as these uses are sited and operated in a manner that minimizes impacts to aquatic and riparian features.
- **Policy CO-2.23:** Support efforts to coordinate the removal of non-native, invasive vegetation within watersheds and replacement with native plants.

- **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-2.31:** Protect wetland ecosystems by minimizing erosion and pollution from grading, especially during grading and construction projects.

- **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 protects. All habitat mitigation must have a secure, ongoing funding source for operation and maintenance.

- **Policy CO-2.37:** Where applicable in riparian areas, ensure that required state and federal permits/approvals are secured before development of approved projects.

- **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-2.40:** Preserve grassland habitat within 2,100 feet of documented California tiger salamander breeding ponds or implement required mitigation (equivalent or more stringent) as imposed by appropriate agencies or through the County HCP/NCCP, to fully mitigation impacts consistent with local, State, and federal requirements. Implementation and funding of mitigation measures for projects that will be developed in phases over time may also be phased, with the applicable mitigation being implemented and funded before the final approval of each phase or sub-phase.

- **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 (CDFW) and the Yolo County HCP/NCCP Joint Powers Agency, or satisfy other subsequent adopted mitigation requirements consistent with applicable local, State, and federal requirements.

- **Policy CO-2.43:** Projects that have the potential to impact California tiger salamander breeding or terrestrial habitat in the Dunnigan Hills area, shall conduct a project-level biological assessment to determine the potential to impact California tiger salamander upland or breeding habitat (if such assessment has not already been done as part of an approved HCP/NCCP). Such an assessment will be required for all projects located within 1.3 miles of a known of potential breeding site. Development activities that would result in isolation of the breeding or upland habitat will be required to mitigate for such impacts. Mitigation shall consist of two components: 1) habitat preservation and enhancement of suitable upland habitat, 2) preservation and construction of new breeding habitat. California tiger salamander upland habitat must be mitigated at a ratio of 3:1 (preserved:impacted), located within 2,100 feet of an occupied habitat, and include at least one suitable breeding pond. Equivalent or more stringent mitigation may be implemented as determines by trustee and responsible agencies. Mitigation must be coordinated with the HCP/NCCP program if adopted.

- **Action CO-A27:** Protect the habitat value and biological function of oak woodlands, grasslands, riparian areas, and wetland habitats. Avoid activities that remove or degrade these habitats and establish buffers to avoid encroachment into sensitive areas.

- **Policy CC-4.11**: Site specific information shall be required for each application, subject to site conditions and available technical information, as determined by the County lead department, in order to enable informed decision-making and ensure consistency with the General Plan and with the assumptions of the General Plan EIR. Technical information and surveys requested may include, but not be limited to, the following: air quality and/or greenhouse gas emissions calculations, agricultural resource assessment/agricultural and evaluation and site assessment (LESA), biological resources assessment, cultural resources assessment, fiscal impact analysis, flood risk analysis, hydrology and water quality analysis, geotechnical/soils study, land use compatibility analysis, noise analysis, Phase One environmental site assessment, sewer capacity and service analysis, storm drainage capacity and service analysis, title report, traffic and circulation study, visual simulation and lighting study, and water supply assessment.

  When a technical study is required, it must cover the entire acreage upon which development is being proposed including any off-site improvements (e.g., wells; pumps; force mains; new roads; dirt borrow sites; etc.) that may be necessary. Technical studies must meet CEQA standards and the standards in the applicable industry. As necessary, the technical studies shall include recommendations that are to be implemented as part of the project.

Yolo County Oak Woodland Conservation and Enhancement Plan

Oak woodlands are defined by state law as an oak stand with a greater than 10-percent canopy cover or that may have historically supported a greater than 10-percent canopy cover. Oak woodlands in Yolo County are found primarily in the foothills of the Coast Ranges located in the western portion of the County. The Yolo County Oak Woodland Conservation and Enhancement Plan promotes voluntary efforts to conserve and enhance the County's existing oak woodlands to help minimize the effects of land conversion and other factors that disturb the health and longevity of existing oak woodlands.

Cache Creek Resources Management Plan

The Cache Creek Resources Management Plan (CCRMP) is a creek restoration plan that eliminated in-channel commercial mining and established a policy and regulatory framework for seven important elements: covering agriculture, aggregate resources, riparian and wildlife resources, water resources, floodway and channel stability, open space and recreation, and the cultural landscape. Specific goals and objectives were adopted for each of the elements, with suggested policies for their implementation.

The CCRMP also established the Cache Creek Improvement Program (CCIP) for implementing ongoing projects to improve, stabilize, and maintain the creek. Applicable objectives are listed below:

- **Objective 4.3-1**: Conserve and protect existing riparian habitat within the Cache Creek Resources Management Plan (CCRMP) area to the greatest extent possible. Where channel maintenance or improvement activities result in the removal of riparian habitat, require disturbed areas to be restored. Where vegetation has been removed within the channel to maintain or improve flood flow conveyance capacity and/or erosion control purposes, restoration shall be done in nearby areas that do not adversely affect flood flow conveyance capacity.

- **Objective 4.3-2**: Establish conditions to encourage the development of a variety of natural riparian habitat types within the CCRMP are in order to support biological resources associated with Cache Creek.

- **Objective 4.3-3**: Adopt standards for planning, implementing, and monitoring habitat revegetation and restoration projects in order to ensure consistency, maximize success, and account for future uncertainty due to climate change.

- **Objective 4.3-4**: Ensure that the establishment of habitat does not significantly divert streamflow or cause excessive erosion or damage to nearby structures and/or property.

- **Objective 4.3-5**: Encourage the use of alternative methods and practices for erosion control that incorporate riparian vegetation in the design.

- **Objective 4.3-6**: Coordinate restoration programs with relevant planning efforts of both the County and other private and public agencies. Encourage regional mitigation to occur within the Cache Creek Area Plan (CCAP) area, consistent with the program and the Parkway Plan. Require mitigation obligations resulting from mining applications to be implemented within the CCAP area, consistent with the Parkway Plan.

Yolo Bypass Wildlife Area Land Management Plan

The Yolo Bypass Wildlife Area comprises approximately 16,770 acres of managed wildlife habitat and agricultural land within the Yolo Bypass. The Bypass conveys seasonal high flows from the Sacramento River to help control river stage and protect the cities of Sacramento, West Sacramento, and Davis and other local communities, farms, and lands from flooding. The Yolo Bypass Wildlife Area Land Management Plan was prepared through a partnership between CDFW and the Yolo Basin Foundation. The Yolo Bypass Wildlife Area Land Management Plan includes the following goals that pertain to biological resources:

- **Species Guilds Goal 1**: Manage and maintain habitat communities for shorebird and wading bird species.

- **Species Guilds Goal 2**: Manage and maintain habitat communities for waterfowl species.

- **Species Guilds Goal 3**: Maintain and enhance habitat for upland game species.

- **Species Guilds Goal 4**: Manage and maintain habitat communities for raptors.

- **Species Guilds Goal 5**: Manage and maintain habitat communities for cavity-nesting bird species.

- **Species Guilds Goal 6**: Manage and maintain communities for neotropical bird species.

- **Species Guilds Goal 7**: Manage and maintain communities for a variety of other waterbird species including grebes, rails, and songbirds associated with emergent marsh vegetation.

- **Species Guilds Goal 8**: Maintain and enhance foraging opportunities for the presence of breeding colonies of bats roosting under the Yolo Causeway.

- **Special Species Goal 1**: Without specifically managing for special-status species, the communities at the Yolo Wildlife Area should be managed in a way that generally improves overall habitat quality for specie abundance and diversity while not discouraging the establishment of special-status species.

- **Invasive Species Goal 1**: Prevent the introduction and spread of invasive nonnative species that have no benefit to wildlife.

- **Seasonal and Permanent Wetland Ecosystems Goal 1**: Restore and enhance wetlands to conditions that provide desired ecological functions.

- **Riparian Goal 1**: Maintain and enhance riparian communities for native species diversity and abundance (including special-status species).

- **Riparian Goal 2**: Restore and enhance riparian communities to conditions that provide desired ecological functions.

- **Grassland and Upland Goal 1**: Maintain and enhance grassland and upland communities for diversity and abundance of native species (including special-status species).

- **Grassland and Upland Goal 2**: Restore and enhance grassland and upland communities to conditions that provide desired ecological functions.

- **Aquatic Ecosystems Goal 1**: Maintain and enhance aquatic ecosystems for diversity and abundance of native species (including special-status species).

- **Aquatic Ecosystems Goal 2**: Maintain and enhance habitat for game fish species.

- **Aquatic Ecosystems Goal 3**: Restore and enhance aquatic ecosystems to conditions that provide desired ecological functions.

3.4.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis below evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts on biological resources in the County. This program-level analysis is based upon the review of the best available data regarding biological resources in the County as described previously in Section 3.4.1, "Environmental Setting." The footprint and design details of site-specific cannabis projects are not known at this time but this analysis uses the extent and general locations of future cannabis uses assumed under each of the five alternatives based on Table 2-4 and Exhibits 2-4 through 2-8 that are provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," to provide an assessment and comparison of reasonably foreseeable outcomes from different regulatory scenarios.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

Construction activities that may result in biological resource impacts are assumed for each alternative to take place within the entire activity footprint of cannabis cultivation and noncultivation sites for Alternatives 2, 3, 4, and 5 described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives" (see Table 2-4 and Appendix D). Construction would consist of vegetation removal, grading and/or trenching for the creation of cultivation sites, building pads, parking areas, access roadways, infrastructure, and drainage improvements. The reader is referred to Appendix D for further details on assumed construction and operational activities for cannabis uses under each alternative. These activities could result in conversion of natural habitats. The assumptions for the extent of cannabis site activity footprints identified in Table 2-4 in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," were used in the impact analysis below.

Operations for cannabis uses are assumed to be contained within the identified activity footprint for cultivation sites and noncultivation sites. Operational activities that could impact biological resources include the following.

- Cultivation uses: Activities related to the site preparation, planting, maintenance, and harvesting of cannabis (including both outdoors and in structures) through the use of staff, equipment, and vehicles resulting in indirect disturbance (e.g., visual, auditory) to wildlife in the immediate vicinity of the site.

- Noncultivation uses: Employee vehicle, service/delivery vehicle, and customer vehicle and equipment use resulting in indirect disturbance (e.g., visual, auditory) to wildlife in the immediate vicinity of the site.

Specific requirements of existing laws and regulations described in the regulatory setting as well as the proposed CLUO (see Appendix C) were assessed for their ability to avoid or reduce the exposure of biological resources to substantial adverse effects.

Federal agencies, including but not limited to USACE and USFWS, cannot issue permits for activities associated with commercial cannabis activities due to the current federal legal status of these activities. Consequently, projects under the proposed CLUO would be required to avoid federally regulated resources including plant and wildlife species listed under the ESA and waters of the United States as required under Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ (which is regulated under the federal CWA) until such time as the federal government recognizes cannabis as a legal agricultural crop. Projects under the CLUO would be required to participate in the Yolo HCP/NCCP, which will include incorporation of AMMs into project design and payment of applicable mitigation fees. The mitigation measures included in the analysis below are consistent with Yolo HCP/NCCP Avoidance and Minimization Measures, where applicable given the federal status of cannabis activities. The identified mitigation measures are structured to provide appropriate mitigation under the existing condition wherein cannabis activities cannot be treated as a covered activity, and under potential future conditions should cannabis activities be legalized by the federal government.

Land Cover Impact Analysis

Because the precise location and abundance of special-status species is unknown within the County, impacts are evaluated based on habitat suitability. However, for context, between 18 and 379 acres of land conversion are assumed to occur under the five CLUO alternatives based on the assumptions for each alternative (see Table 2-5).

Under all alternatives, a certain number of existing and eligible cannabis cultivation sites are assumed to relocate to meet zoning and buffer standards of the CLUO. It is assumed for analysis purposes that these sites would relocate nearby to a site with the same or similar land cover type. Alternatives 2, 3, 4, and 5 also assume the development of additional cultivation sites and new noncultivation cannabis uses. Based on the locations of existing and eligible cannabis cultivation sites and the assumed location of proposed new cannabis operations, available land area assumed for each alternative to determine land cover and habitat type that might be affected using Figures 3.4-6 through 3.4-10.

Table 3.4-4 identifies the percentage of land cover type that might be impacted by each alternative.

Section 8-2.1408(RR) of the CLUO prohibits disturbance or removal of native trees, tree clusters or stands, oak woodlands, and riparian woodlands; thus, impacts or conversion of the “woodland habitat” land cover category are not expected. Section 8-2.1408(D) of the CLUO, General Plan policies, and Attachment A of SWRCB Order WQ 2019-0001-DWQ, require setbacks from aquatic and riparian habitat. Additionally, cannabis operations under the CLUO would be required to avoid federally regulated resources, including waters of the United States, until such time as the federal government recognizes cannabis as a legal agricultural crop. As a result, impacts or conversions of the “aquatic habitat” is not anticipated. Additionally, most of the shrub and serpentine habitat land cover category occurs within the foothills of the Coast Ranges. For analysis purposes, it is assumed that relocated existing and eligible cultivation sites and new cannabis operations would not be located within this region based on Exhibits 2-4 through 2-8.

Table 3.4-4 Percent of Land Cover Available that Could be Potentially Impacted from Relocation of Existing and Eligible Cultivation Sites and Development of New Cannabis Sites

Land Cover Types	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Annual Grassland	2%	16%	10%	14%	16%
Aquatic Habitat	less than 1%	less than 1%	1%	less than 1%	less than 1%
Shrub and Serpentine Habitat	0%	7%	4%	6%	7%
Woodland Habitat	1%	24%	15%	20%	24%
Barren	less than 1%	less than 1%	less than 1%	1%	less than 1%
Developed	2%	less than 1%	1%	3%	less than 1%
Agricultural	92%	51%	74%	56%	51%

It is assumed for analysis purposes that the majority of cannabis uses would occur within land previously developed for agriculture and that some may be located within annual grassland habitat. Conversion of annual grassland habitat within areas zoned for agriculture in the County has been considered in the General Plan EIR, so potential conversion of the habitat would not result in a new, previously undisclosed environmental impact. However, previously unidentified special-status species or other resources could occur within annual grassland habitat.

Noncultivation Cannabis Uses in Areas Zoned for Commercial or Industrial Use

As described in Section 3.0, Approach to the Environmental Analysis," and Appendix D, it is assumed that 10 percent of the noncultivation cannabis operations (e.g., nurseries, processing, manufacturing) under Alternatives 2, 3, and 4 would be located within areas in the County zoned for commercial or industrial use. Based on County GIS data, approximately 70 percent of the commercial zoned areas are developed and approximately 80 percent of the industrial zone areas are developed. However, some areas zoned for commercial or industrial use contain marginally suitable wildlife habitat, including ruderal grassland, ponds, stands of trees, and isolated trees. Special-status plant species can occur within disturbed habitats, like ruderal grassland and roadsides. Burrowing owl can occur within marginal ruderal grassland habitat is suitable nesting burrows are present. Additionally, special-status birds and other native nesting birds protected by California Fish and Game Code, may nest within isolated trees surrounded by development. It is likely that areas zoned for commercial or industrial use would provide lower-quality habitat for special-status plants and wildlife than areas zoned for agricultural use; however, some of these species may still occur, especially those that are more tolerant of disturbed habitats.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Section 15065 and Appendix G of the State CEQA Guidelines. These thresholds address the biological resource conditions and associated policies and regulations in the County (e.g., General Plan and Yolo HCP/NCCP) as well as potential effects associated cultivation operations (land disturbance, building construction, and use of lighting).

The project would result in a significant impact on biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- have a substantial adverse effect on state-protected or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance where such a conflict would result in an adverse change in the environment;
- conflict with the provisions of the HCP/NCCP, or other approved local, regional, or state HCP; or
- 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.

IMPACTS AND MITIGATION MEASURES

Impact BIO-1: Adversely Affect Special-Status Species

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in land use conversion which could adversely affect several special-status wildlife species under each of the five alternatives. Implementation of the CLUO could result in disturbance, injury, or direct mortality or reduced breeding productivity of these species. Special-status wildlife species are protected under the ESA, CESA, the California Fish and Game Code, CEQA, and other regulations. Construction of cannabis uses as a result of implementation of the proposed CLUO could also result in disturbance to or loss of several special-status plant species, if they are present. Additionally, construction could result in introduction or spread of invasive plants during vegetation removal, ground disturbance, or introduction of off-site soils, which could result in exclusion of special-status plants. The loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species. The loss of special-status wildlife and plant species and habitat would be a **significant** impact for all alternatives.

A total of 46 special-status wildlife species were identified as having potential to occur in Yolo County, including reptiles, amphibians, nesting birds, fish, invertebrates, and mammals (Table 3.4-2). Eleven of these special-status wildlife species are considered covered species under the Yolo HCP/NCCP. A total of 34 special-status plants were identified as having potential to occur within Yolo County (Table 3.4-3). One of these plant species is considered a covered species under the Yolo HCP/NCCP. Relocation of existing cannabis cultivation sites and construction and operation of new cannabis uses could result in adverse effects to special-status species if present within or adjacent to the activity footprint.

The CLUO includes the following performance standards that address special-status species and habitat impacts:

- Section 8-2.1408(D) requires cannabis applicants to survey and disclose on-site biological resources pursuant to Section 8-2.1410(C)(2), and to avoid special-status species and habitats where feasible and mitigated pursuant to the Yolo HCP/NCCP and applicable state requirements when impacts cannot be avoided. Permittees must demonstrate compliance with an LSA Agreement pursuant to State Fish and Game Code 1602 if one is required. Permittees shall comply with the minimum 100-foot setback requirement set forth in Policy CO-2.22 of the General Plan as applicable. Permittees must demonstrate compliance with the Yolo HCP/NCCP, if applicable, and subsequent relevant adopted plans.

- Section 8-2.1408(A) requires adherence to California state law and to CDPR regulations that specifies proper application and storage of pesticides, rodenticides, and insecticides to protect human health and the environment. Specifically, the proposed ordinance includes the following requirements:

    - Agricultural Applications – This category includes fertilizers, herbicides, pesticides, rodenticides, fumigants, and other inputs/applications for improved agricultural performance. Permittees shall comply with applicable County and State requirements for use to the satisfaction of the County Agricultural Commissioner and other responsible official. CDFA licensees shall implement the Pest Management Plan required pursuant to Section 8106(a)(3) and Section 8106(b)(2) of the CDFA Regulations, as applicable. CDFA licensees shall comply with pesticide laws and regulations as enforced by the CDPR pursuant to Section 8307, Pesticide Use Requirements, of the CDFA Regulations.

In addition, state testing requirements for cannabis goods to be accepted limit the extent that pesticides can be used. The reader is referred to Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," for a further description of state testing requirements.

- Section 8-2.1408(OO) requires that cannabis site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (e.g., biological, cultural, trees) and other appropriate impact mitigation.

- Section 8-2.1408(RR) requires tree protections that include a prohibition on detrimental activity within the dripline. Removal of native trees and tree clusters or stands, particularly oak woodlands, remnant valley oaks, and riparian woodlands, is prohibited.

In addition to these requirements, as discussed above in Section 3.4.2 "Regulatory Setting," cannabis cultivation sites are subject to compliance with Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ, which includes the following requirements (terms). It is assumed for the purposes of this analysis that compliance with Terms 4, 10, and 37 would be satisfied for Yolo HCP/NCCP covered state-listed-only species via compliance with the requirements of the Yolo HCP/NCCP.

- Term 4: Cannabis cultivators shall not take any action which results in the taking of Special-Status Plants (state listed and California Native Plant Society 1B.1 and 1B.2), Fully Protected species (Fish and Game Code sections 3511, 4700, 5050, and 5515), or a threatened, endangered, or candidate species under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050 et seq.) or the federal ESA (16 U.S.C. § 1531 et seq.). If a "take," as defined by the California ESA (Fish and Game Code section 86) or the federal ESA (16 U.S.C. § 1532(21)), may result from any act authorized under this Policy, the cannabis cultivator must obtain authorization from CDFW, National Marine Fisheries Service, and United States Fish and Wildlife Service, as applicable, to incidentally take such species prior to land disturbance or operation associated with the cannabis cultivation activities. The cannabis cultivator is responsible for meeting all requirements under the California ESA and the federal ESA. (Note: Authorization for take of a federally listed species under FESA is not currently allowed for cannabis uses).

- Term 10: Prior to commencing any cannabis land development or site expansion activities the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or natural communities at the proposed development site. If sensitive plant, wildlife species, or natural communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a no-disturbance buffer to protect identified sensitive plant, wildlife species, and natural communities. A copy of the report shall be submitted to the appropriate Regional Water Board.

- Term 37: Cannabis cultivators shall comply with the minimum riparian setbacks described in Table 3.4-5 for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, water storage areas, and chemical toilet placement).

Table 3.4-5 Minimum Riparian Setbacks[1,2]

Common Name	Watercourse Class[3]	Distance
Perennial watercourses, waterbodies (e.g., lakes, ponds), or springs[4]	I	150 feet
Intermittent watercourses or wetlands	II	100 feet
Ephemeral watercourses	III	50 feet
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established Riparian Vegetation Zone
All other man-made irrigation canals, water supply reservoirs, or hydroelectric canals	IV	N/A

[1] A regional water quality control board (RWQCB) may adopt site-specific waste discharge requirements (WDRs) or an enforcement order for a cannabis cultivator with requirements that are inconsistent with the setbacks in this table if the Executive Officer determines that the site-specific WDRs or enforcement order contains sufficient requirements to be protective of water quality.

[2] Cannabis cultivators enrolled in a RWQCB order adopting WDRs or a waiver of WDRs for cannabis cultivation activities prior to October 17, 2017, may retain reduced setbacks applicable under that RWQCB order unless the RWQCB Executive Officer determines that the reduced setbacks applicable under that order are not protective of water quality.

[3] Except where more restrictive, the stream class designations are equivalent to the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulations, Title 14, Chapter 4. Forest Practice Rules, Subchapters 4, 5, and 6 Forest District Rules, Article 6 Water Course and Lake Protection).

[4] Spring riparian setbacks default to the applicable watercourse riparian setback 150 feet downstream and/or upstream of the spring's confluence with the watercourse or 150 feet downstream of the point where the spring forms a watercourse with defined bed and banks.

All licensed cannabis cultivation operations are required to comply with the numeric and narrative instream flow requirements for all diversions of surface water and groundwater as part of compliance with Attachment A (Section 3 – Numeric and Narrative Instream Flow Requirements) of SWRCB Order WQ 2019-0001-DWQ. These requirements include design requirements for fish screens, diversion structures, off-stream storage reservoirs, and storage bladders.

Diversion provisions of the standards are based on three types of requirements to ensure sufficient instream flows:

- dry season forbearance period and limitations on the wet season diversions,
- narrative instream flow requirements, and
- numeric instream flow requirements during the wet season.

Instream flow requirements during the wet season were established by the SWRCB in consultation with CDFW for the protection of aquatic species life history needs, including endangered anadromous salmonids. Numeric instream flow requirements (minimum instream flows required to protect aquatic species) are established for each region in the state in Attachment A of SWRCB Order WQ 2019-0001-DWQ. Aquatic base flows have also been established to address instream flow impacts from groundwater diversions. The aquatic base flow is the set of chemical, physical, and biological conditions that represent limiting conditions for aquatic life in stream environments.

Surface water and groundwater diversions for cannabis cultivation operations are limited in the following manner:

- Surface water diversions will be prohibited from April 1 to October 31 each year (forbearance period).
- Surface water diversions may occur from November 1 to March 31 each year subject to the following requirements:
    - Surface water diversions will not occur until the real-time daily average flow is greater than the minimum monthly instream flow requirement at a compliance gage for 7 consecutive days or after December 15 when flows are greater than the numeric flow requirement.
    - Surface water diversions must bypass a minimum of 50 percent of the streamflow past the point of diversion as estimated based on the cultivator's visual observation.
- The SWRCB will monitor instream flows during the dry season and evaluate whether the number or location of groundwater diversions to determine whether imposition of a groundwater forbearance period or other measures. The SWRCB will notify cannabis cultivators of the possibility of a groundwater forbearance period or that other measures may be imposed to address the low-flow condition.

The SWRCB's flow standards and diversion requirements were developed to protect fish spawning, migration, and rearing for endangered anadromous salmonids, and flows needed to maintain natural flow variability within each watershed. The diversion requirements would ensure that the individual and cumulative effects of water diversions and discharges associated with cannabis cultivation do not affect instream flows necessary for fish spawning, migration, and rearing for endangered anadromous salmonids, and flows needed to maintain natural flow variability (SWRCB 2017a). The policy was scientifically peer reviewed by four experts. The peer review determined that water quality, instream flow, and diversion requirements of the policy were based on sound scientific knowledge, methods, and data (SWRCB 2017b).

Pursuant to CCR Section 8216, if the SWRCB or CDFW notifies CDFA in writing that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area pursuant to Section 26069, Subdivision (c)(1), of the Business and Professions Code, CDFA shall not issue new licenses or increase the total number of plant identifiers within that watershed or area while the moratorium is in effect.

CLUO performance standards that are based on General Plan policies identified in Section 3.4.2, "Regulatory Setting," and SWRCB requirements would reduce the likelihood of adverse effects on some special-status wildlife and plants. Adverse impacts on wildlife as a result of exposure to pesticides, including rodenticides, would be avoided by implementation of Section 8-2.1408(A) of the CLUO as well as state pesticide requirements, which would both limit the use and regulate the proper use of these chemicals within cannabis cultivation sites. CLUO performance standards and General Plan and SWRCB requirements would also reduce impacts on aquatic species (e.g., special-status fish, vernal pool invertebrates, wetland plant species) by requiring riparian setbacks from aquatic habitat and limiting surface water diversions. Section 1408(D) of the CLUO and Term 10 of Attachment A of SWRCB Order WQ 2019-0001-DWQ would reduce impacts on special-status species by requiring identification of these species within the activity footprint, avoidance of the species if found (e.g., by implementation of no-disturbance buffers), or mitigation for impacts on the species (e.g., consultation with applicable agencies, participation in the Yolo HCP/NCCP).

Construction impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, are assumed to include vegetation removal, grading and/or trenching, or conversion of natural habitats (see Appendix D). These activities could result in disturbance, injury, direct mortality, reduced breeding productivity, or loss of habitat for special-status species.

Operation impacts as a result of adoption and implementation of the proposed CLUO may include presence of equipment and staff that could result in visual or auditory disturbance to special-status wildlife if present nearby. Potential impacts to biological resources from the use of nighttime lighting would be mitigated through compliance with CLUO standards that prohibit lighting in hoop houses (Section 8-2.1408[X]), and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts (Section 8-2.1408[Z]).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant impacts on special-status species and their habitat are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to proposed zoning standards under the CLUO, and it is further assumed that these sites would relocate nearby within other areas zoned for agricultural uses. Of the land assumed available for cultivation site relocation under this alternative, approximately over 90 percent contains agricultural uses and approximately 2 percent contains urban/suburban development (Table 3.4-4; Exhibit 3.4-6). The land cover near the cultivation sites that would involve relocation includes primarily orchard and vineyard (approximately 49 percent) and row crop/grain (39 percent), as well as smaller areas of rice (approximately 6 percent), pastureland (approximately 3 percent), and uncultivated land (approximately 3 percent) (Exhibit 3.4-6). Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to convert approximately 18 acres of existing land cover (2 acres per cultivation site based on assumptions identified in Appendix D).

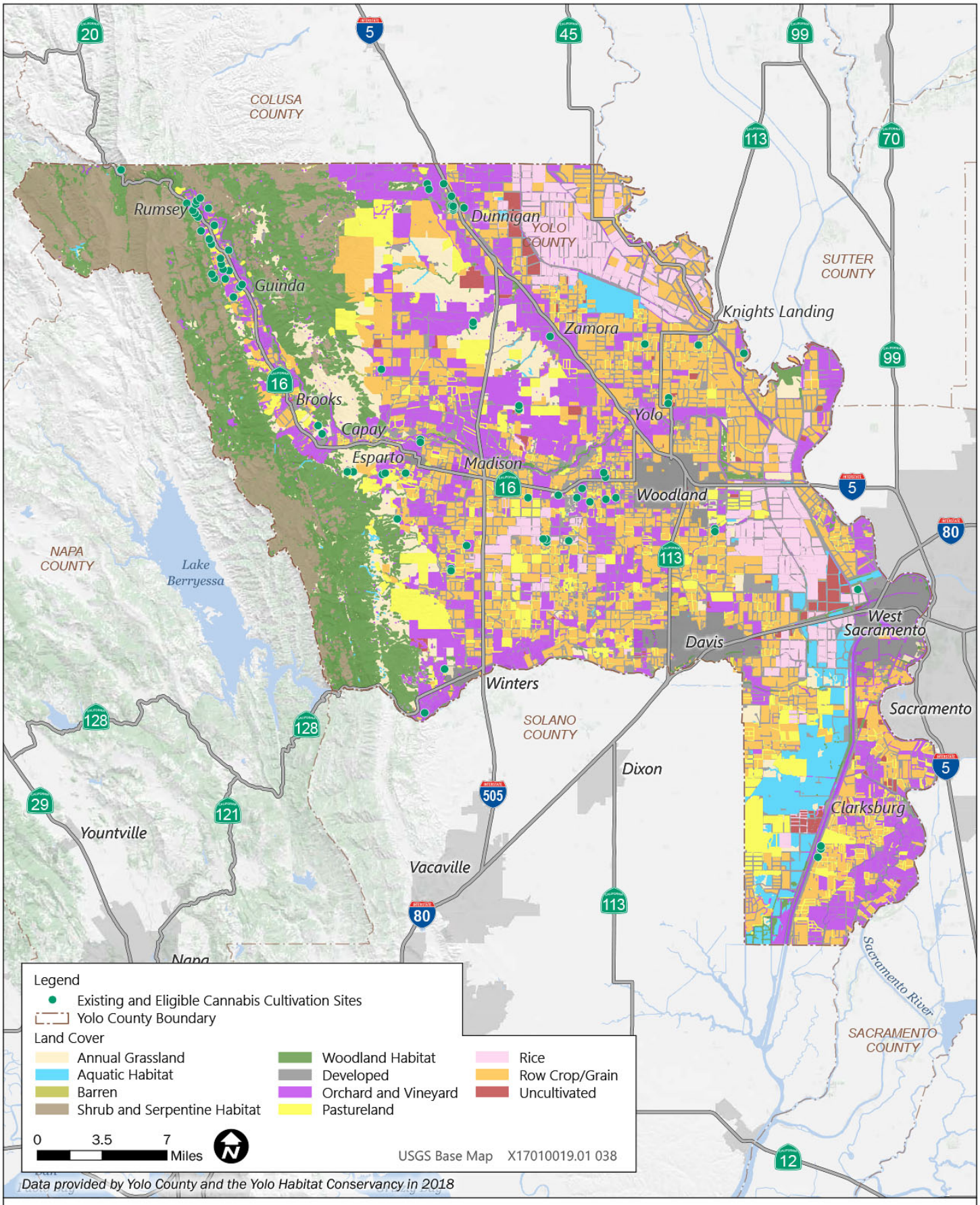


Exhibit 3.4-6

Land Cover and Alternative 1

While the land available for relocation of these nine cannabis cultivation sites contains predominately agricultural land, many types of agriculture act as a surrogate for natural habitat for special-status species. Swainson's hawk and white-tailed kite forage within row crops/grain crops, pasture, and fallow fields in agricultural areas. Burrowing owls frequently occur within agricultural areas. Agricultural areas can support wetland habitat, including vernal pools, which provide suitable habitat for many special-status species, including California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Cannabis cultivation sites would be required by CLUO standards, and General Plan and SWRCB policies to avoid wetland habitat; however, some wetland habitats have not been previously mapped, and as a result, presence of wetland habitat within a proposed site cannot be ruled out. Irrigation ditches associated with agricultural operations provide suitable habitat for several special-status species, including western pond turtle and giant garter snake. Giant garter snake, in particular, has adapted to thriving in flooded rice fields. Additionally, many special-status plant species that occur within valley grassland habitats can also occur within pastureland; and several species also occur within disturbed habitats (e.g., irrigation ditches, roadsides).

While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on special-status wildlife and plants, as described above, there would still be potential for impact because presence of special-status species may only be determined through protocol-level surveys (including for special-status species not covered by the Yolo HCP/NCCP) and specific avoidance measures to prevent disturbance or direct loss of these species would be required in excess of CLUO performance standards and SWRCB requirements (e.g., no disturbance buffers).

This impact would be **significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 2 due to proposed zoning and buffering standards under the CLUO, and it is further assumed that these sites would relocate nearby. The 30 relocated sites and the additional 54 new cannabis cultivation and noncultivation uses assumed under this alternative could be located within a number of different habitat types (Exhibit 3.4-7). Of the land assumed available under this alternative in which cultivation sites could relocate and construction of new cannabis operations could occur, approximately over 50 percent consists of agricultural uses and approximately 16 percent consists of annual grassland (Table 3.4-4, Exhibit 3.4-7). The available acreage within the agricultural land cover category includes primarily row crop/grain (approximately 42 percent) and orchard and vineyard (approximately 38 percent) as well as smaller areas of pastureland (approximately 11 percent), rice (approximately 7 percent), and uncultivated land (approximately 2 percent) (Exhibit 3.4-7).

Relocation activities would include closure and restoration of the existing cultivation sites and construction of a new cultivation site, which is assumed to convert approximately 60 acres of existing land cover (2 acres per cultivation site based on assumptions identified in Appendix D). Construction of new cannabis uses, including two new cultivation sites and new noncultivation uses, would include conversion of approximately 104 acres of existing land cover under Alternative 2 (based on assumptions identified in Table 2-5 and Appendix D).

Because approximately half of the land available for relocation or new cannabis uses contains agricultural uses, assuming that existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 2 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to annual grassland habitat, and approximately 16 percent of the available land assumed under Alternative 2 contains annual grassland habitat. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could occur within annual grassland habitat.

Grassland habitat within the County supports several special-status plant and wildlife species. Additionally, while the assumed available land under Alternative 2 contains predominately agricultural land, many types of agriculture act as a surrogate for natural habitat for special-status species. Swainson's hawk and white-tailed kite forage within row crops/grain crops, pasture, and fallow fields in agricultural areas. Burrowing owls

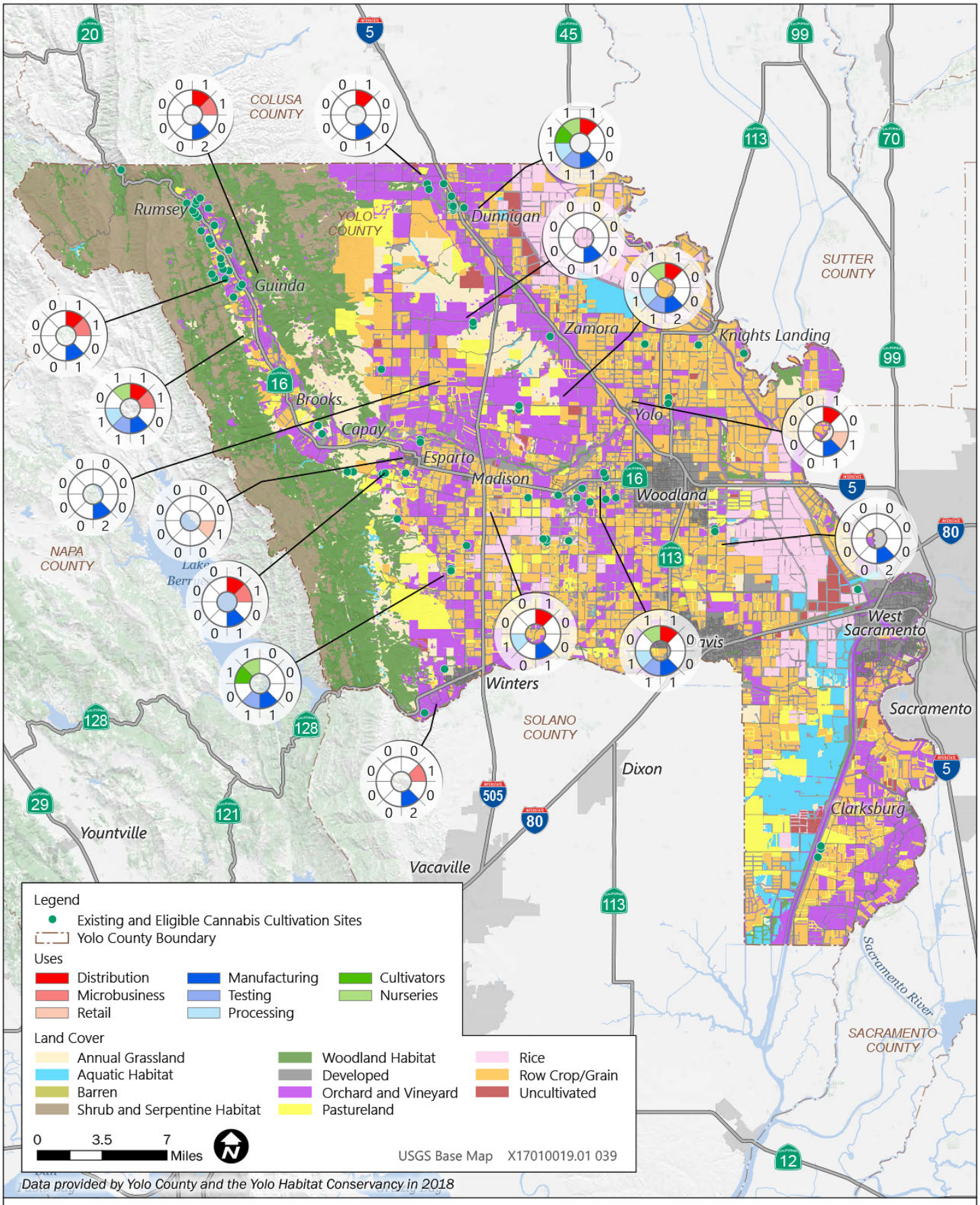


Exhibit 3.4-7 **Land Cover and Alternative 2**

frequently occur within agricultural areas. Agricultural areas can support wetland habitat, including vernal pools, which provide suitable habitat for many special-status species, including California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Cannabis cultivation sites would be required by CLUO standards, and General Plan and SWRCB policies to avoid wetland habitat; however, some wetland habitats have not been previously mapped, and as a result, presence of wetland habitat within a proposed site cannot be ruled out. Often, these wetland habitats have not been previously mapped. Irrigation ditches associated with agricultural operations provide suitable habitat for several special-status species, including western pond turtle and giant garter snake. Giant garter snake, in particular, has adapted to thriving in flooded rice fields. Additionally, many special-status plant species that occur within valley grassland habitats can also occur within pastureland; and several species also occur within disturbed habitats (e.g., irrigation ditches, roadsides).

Relocation of the 30 existing and eligible cannabis cultivation sites and the assumed development of 54 new cannabis uses would include construction activities such as grading, trenching, ground disturbance, and vegetation removal of up to 164 acres. Operation of the cultivation sites and other cannabis uses could include visual or auditory disturbance sources, including equipment, vehicles, and personnel. These activities could result in disturbance or loss of special-status plant or wildlife species if present within the activity footprint.

While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on special-status wildlife and plants, there would still be potential for impact because presence of special-status species may only be determined through focused or protocol-level surveys (including for special-status species not covered by the Yolo HCP/NCCP) and specific avoidance measures to prevent disturbance or direct loss of these species would be required in excess of CLUO performance standards and SWRCB requirements (e.g., no disturbance buffers).

This impact would be **significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Nine of the 78 existing and eligible cannabis cultivation sites would be assumed to relocate under Alternative 3 due to proposed zoning standards under the CLUO, and it is further assumed that these sites would relocate nearby. The nine relocated sites and the additional 186 new cannabis cultivation and noncultivation uses assumed under this alternative could be located within a number of different habitat types (Exhibit 3.4-8). The available land assumed under Alternative 3 in which cultivation sites could relocate and construction of new cannabis uses could occur contains approximately 74 percent agricultural uses and 10 percent annual grassland (Table 3.4-4; Exhibit 3.4-8). The available acreage within the agricultural land cover category includes primarily row crop/grain (approximately 48 percent) and orchard and vineyard (approximately 30 percent) as well as smaller areas of rice (approximately 11 percent), pastureland (approximately 8 percent), and uncultivated land (approximately 3 percent) (Exhibit 3.4-8).

Relocation activities would include closure and restoration of the existing cultivation sites and construction of a new cultivation site that is assumed to convert approximately 18 acres of existing land cover (2 acres per cultivation site based on assumptions identified in Appendix D). Construction of new cannabis uses, including 82 new cultivation sites and 104 noncultivation sites assumed under Alternative 3, would include conversion of approximately 361 acres of existing land cover (based on assumptions identified in Table 2-5 and Appendix D).

Because a majority of the land available for relocation or new development contains agricultural uses, assuming that existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 3 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. While rice makes up only 11 percent of the total available agricultural land cover assumed under Alternative 3, the total acreage of rice land cover available for relocation or new development is nearly five times greater than the available acreage of rice under any other alternative. Further, some of the available

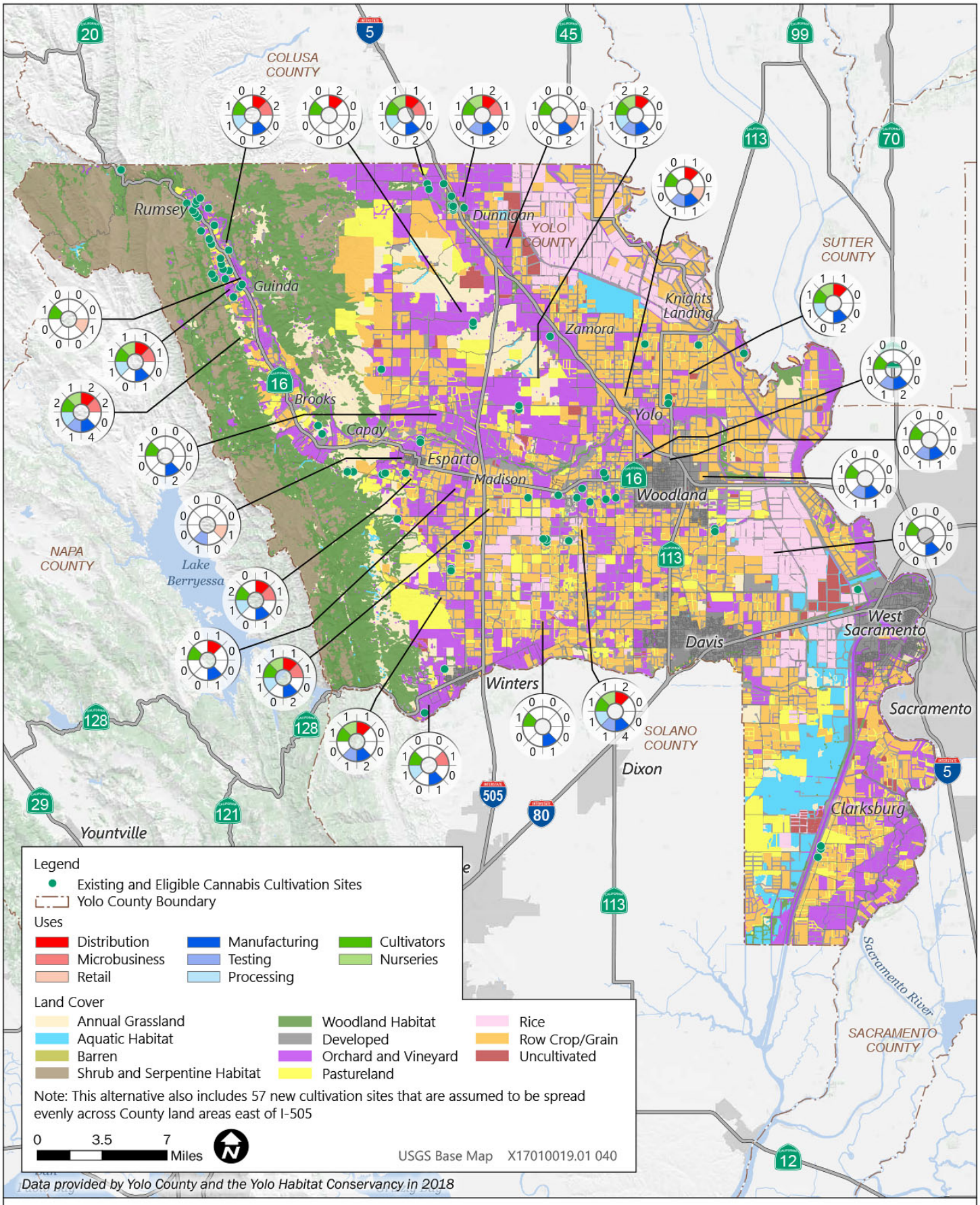


Exhibit 3.4-8

Land Cover and Alternative 3

agricultural land in the County is located adjacent to annual grassland habitat, and approximately 10 percent of the available acreage under Alternative 3 contains annual grassland. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could occur within annual grassland habitat.

Grassland habitat within the County supports several special-status plant and wildlife species. Additionally, while the available land assumed under Alternative 3 contains predominately agricultural land, many types of agriculture act as a surrogate for natural habitat for special-status species. Swainson's hawk and white-tailed kite forage within row crops/grain crops, pasture, and fallow fields in agricultural areas. Burrowing owls frequently occur within agricultural areas. Agricultural areas can support wetland habitat, including vernal pools, which provide suitable habitat for many special-status species, including California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Cannabis cultivation sites would be required by CLUO standards, and General Plan and SWRCB policies to avoid wetland habitat; however, some wetland habitats have not been previously mapped, and as a result, presence of wetland habitat within a proposed site cannot be ruled out. Irrigation ditches associated with agricultural operations provide suitable habitat for several special-status species, including western pond turtle and giant garter snake. Giant garter snake, in particular, has adapted to thriving in flooded rice fields. Because the available acreage of rice under Alternative 3 is greater than any other alternative, it is reasonable to assume that the potential for impacts on giant garter snake would also be greater. Additionally, many special-status plant species that occur within valley grassland habitats can also occur within pastureland; and several species also occur within disturbed habitats (e.g., irrigation ditches, roadsides).

Relocation of the nine existing and eligible cannabis cultivation sites and development of 186 new cannabis operations is assumed to include construction activities such as grading, trenching, ground disturbance, and vegetation removal up to 379 acres. Operation of the cultivation sites and other cannabis uses could include visual or auditory disturbance sources, including equipment, vehicles, and personnel. These activities could result in disturbance or loss of special-status plant or wildlife species if present within the activity footprint.

While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on special-status wildlife and plants, there would still be potential for impact because presence of special-status species may only be determined through focused or protocol-level surveys (including for special-status species not covered by the Yolo HCP/NCCP) and specific avoidance measures to prevent disturbance or direct loss of these species would be required in excess of CLUO performance standards and SWRCB requirements (e.g., no disturbance buffers).

This impact would be **significant** under Alternative 3.

<u>Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types</u>

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 4 due to proposed zoning standards under the CLUO, and it is further assumed that these sites would relocate nearby. Additionally, 75 of the existing and eligible cannabis sites with outdoor cultivation are assumed to entirely convert to indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of two new mixed-light or indoor cultivation sites and a total or 52 new noncultivation uses. While impacts related to conversion to mixed-light or indoor operations are not expected to be as substantial as a complete relocation, conversion may require construction of new on-site roadways/parking, buildings, and infrastructure. The nine relocated sites, 75 converted sites, and the additional 54 new cannabis cultivation and noncultivation uses assumed in this alternative could be located within a number of different habitat types (Exhibit 3.4-9). The available land assumed in this alternative in which cultivation sites could relocate and construction of new cannabis operations could occur contains approximately 56 percent agricultural uses and 14 percent annual grassland (Table 3.4-4; Exhibit 3.4-9). The available acreage within the agricultural land cover category includes primarily row crop/grain (approximately 44 percent) and orchard and vineyard (approximately 39 percent) as well as smaller areas of pastureland (approximately 9 percent), rice (approximately 5 percent), and uncultivated land (approximately 2 percent) (Exhibit 3.4-9).

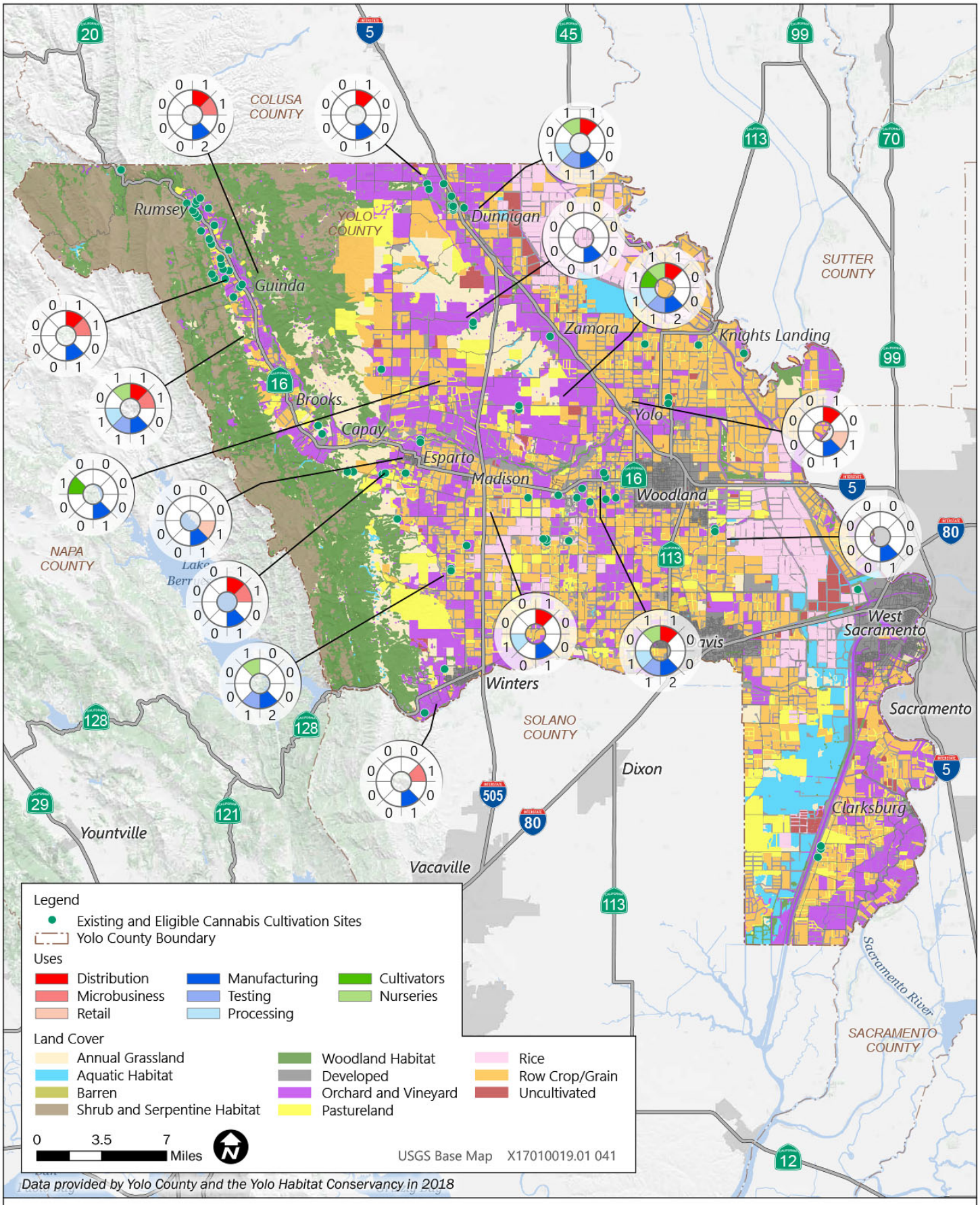


Exhibit 3.4-9 **Land Cover and Alternative 4**

Relocation activities would include closure and restoration of the existing cultivation sites and construction of a new cultivation site that is assumed to convert approximately 18 acres of existing land cover (2 acres per cultivation site based on assumptions identified in Appendix D). Construction of new cannabis uses assumed under Alternative 4, including two new cultivation sites, would include conversion of approximately 104 acres of existing land cover (based on assumptions identified in Appendix D).

Because over half of the land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 4 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. Additionally, some of the available agricultural land in the County is located adjacent to annual grassland habitat, and approximately 14 percent of the available acreage assumed under Alternative 4 contains annual grassland habitat. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could occur within annual grassland habitat.

Grassland habitat within the County supports several special-status plant and wildlife species. Additionally, while the available land assumed under Alternative 4 contains predominately agricultural land, many types of agriculture act as a surrogate for natural habitat for special-status species. Swainson's hawk and white-tailed kite forage within row crops/grain crops, pasture, and fallow fields in agricultural areas. Burrowing owls frequently occur within agricultural areas. Agricultural areas can support wetland habitat, including vernal pools, which provide suitable habitat for many special-status species, including California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Cannabis cultivation sites would be required by CLUO standards, and General Plan and SWRCB policies to avoid wetland habitat; however, some wetland habitats have not been previously mapped, and as a result, presence of wetland habitat within a proposed site cannot be ruled out. Irrigation ditches associated with agricultural operations provide suitable habitat for several special-status species, including western pond turtle and giant garter snake. Giant garter snake, in particular, has adapted to thriving in flooded rice fields. Additionally, many special-status plant species that occur within valley grassland habitats can also occur within pastureland; and several species also occur within disturbed habitats (e.g., irrigation ditches, roadsides).

Relocation of the nine existing and eligible cannabis cultivation sites, conversion of the 75 existing and eligible cannabis cultivation sites to indoor or mixed light operations, and development of 54 new cannabis uses assumed under Alternative 4 would include construction activities such as grading, trenching, ground disturbance, and vegetation removal up to 122 acres. Operation of the cultivation sites and other cannabis uses could include visual or auditory disturbance sources, including equipment, vehicles, and personnel. These activities could result in disturbance or loss of special-status plant or wildlife species if present within the activity footprint.

While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on special-status wildlife and plants, there would still be potential for impact because presence of special-status species may only be determined through focused or protocol-level surveys (including for special-status species not covered by the Yolo HCP/NCCP) and specific avoidance measures to prevent disturbance or direct loss of these species would be required in excess of CLUO performance standards and SWRCB requirements (e.g., no disturbance buffers).

This impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 5 due to proposed zoning and buffering standards under the CLUO, and it is further assumed that these sites would relocate nearby. The 30 relocated sites and the additional 52 new cannabis cultivation and noncultivation uses assumed under this alternative could be located within a number of different habitat types within areas zoned for agriculture (Exhibit 3.4-10). The available land assumed under this alternative in which cultivation sites could relocate and construction of new cannabis operations could occur contains approximately 51 percent agricultural uses and 16 percent annual grassland (Table 3.4-4; Exhibit 3.4-10).

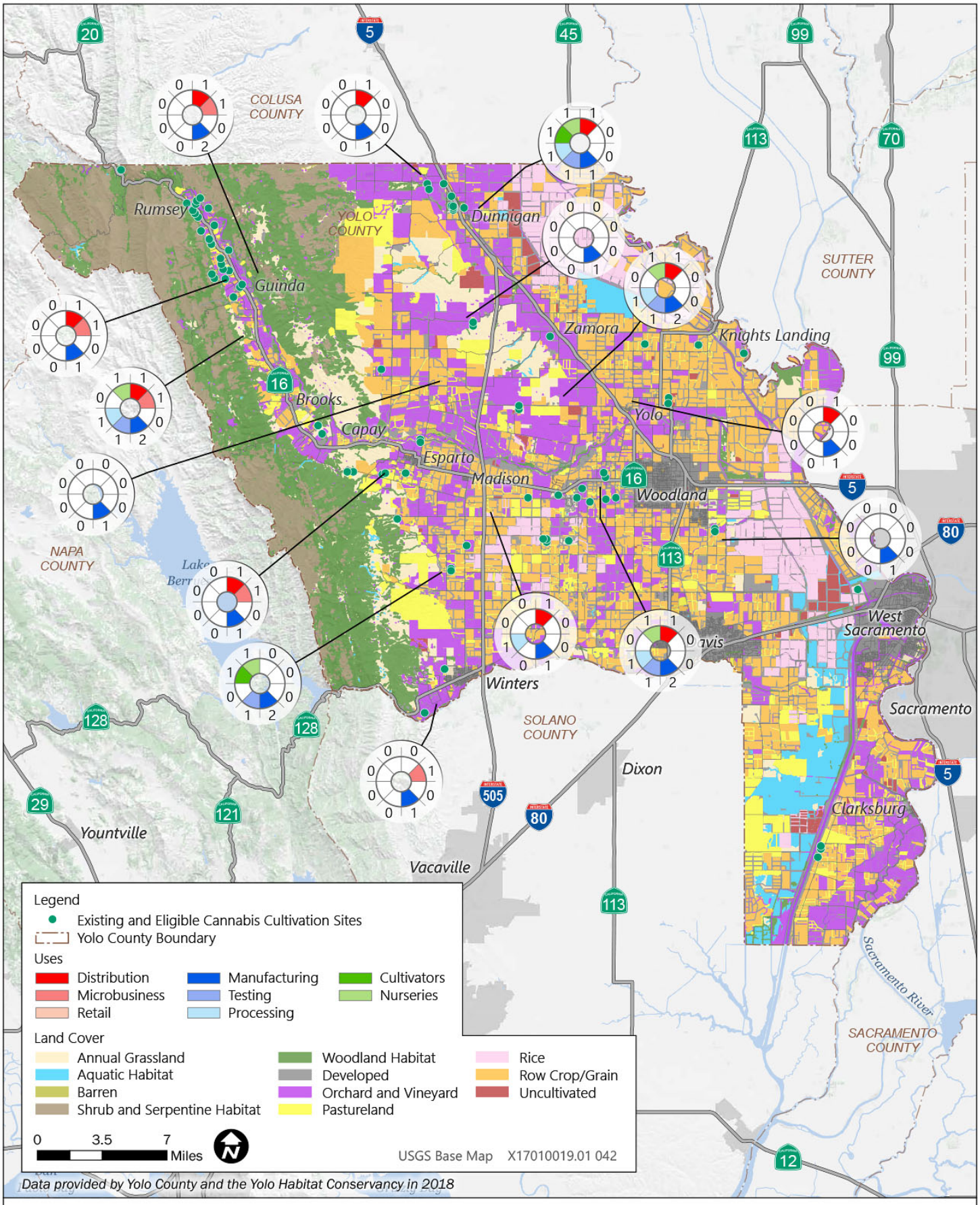


Exhibit 3.4-10 **Land Cover and Alternative 5**

The available acreage within the agricultural land cover category includes primarily row crop/grain (approximately 42 percent) and orchard and vineyard (approximately 38 percent) as well as smaller areas of pastureland (approximately 11 percent), rice (approximately 7 percent), and uncultivated land (approximately 2 percent) (Exhibit 3.4-10).

Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to convert approximately 60 acres of existing land cover (2 acres per cultivation site based on assumptions identified in Appendix D). Construction of new cannabis uses, including two new cultivation sites assumed under Alternative 5, would include conversion of approximately 103 acres of existing land cover (based on assumptions identified in Appendix D).

Because half of the land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 5 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. Additionally, some of the available agricultural land in the County is located adjacent to annual grassland habitat, and approximately 16 percent of the available acreage assumed under Alternative 5 contains annual grassland habitat. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could occur within annual grassland habitat.

Grassland habitat within the County supports several special-status plant and wildlife species. Under Alternative 5 all the land assumed to be available is designated Agriculture (AG). Many types of agriculture act as a surrogate for natural habitat for special-status species. Swainson's hawk and white-tailed kite forage within row crops/grain crops, pasture, and fallow fields in agricultural areas. Burrowing owls frequently occur within agricultural areas. Agricultural areas can support wetland habitat, including vernal pools, which provide suitable habitat for many special-status species, including California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Cannabis cultivation sites would be required by CLUO standards, and General Plan and SWRCB policies to avoid wetland habitat; however, some wetland habitats have not been previously mapped, and as a result, presence of wetland habitat within a proposed site cannot be ruled out. Irrigation ditches associated with agricultural operations provide suitable habitat for several special-status species, including western pond turtle and giant garter snake. Giant garter snake, in particular, has adapted to thriving in flooded rice fields. Additionally, many special-status plant species that occur within valley grassland habitats can also occur within pastureland; and several species also occur within disturbed habitats (e.g., irrigation ditches, roadsides).

Relocation of the 30 existing and eligible cannabis cultivation sites and development of 52 new cannabis uses assumed under Alternative 5 include construction activities such as grading, trenching, ground disturbance, and vegetation removal up to 163 acres. Operation of the cultivation sites and other cannabis uses could include visual or auditory disturbance sources, including equipment, vehicles, and personnel. These activities could result in disturbance or loss of special-status plant or wildlife species if present within the activity footprint.

While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on special-status wildlife and plants, there would still be potential for impact because presence of special-status species may only be determined through focused or protocol-level surveys (including for special-status species not covered by the Yolo HCP/NCCP) and specific avoidance measures to prevent disturbance or direct loss of these species would be required in excess of CLUO performance standards and SWRCB requirements (e.g., no disturbance buffers).

This impact would be **significant** under Alternative 5.

Mitigation Measures

Mitigation Measure BIO-1: Conduct Preapproval Reconnaissance-Level Surveys for Biological Resources, Participate in the Yolo HCP/NCCP (including payment of fees and implementation of AMMs), and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)

Expand the requirements of Section 8-2.1408(D) of the CLUO to include the following:

Reconnaissance-Level Survey

Permittees shall include a reconnaissance-level survey for biological resources conducted on the parcel of the cannabis use by a qualified biologist (i.e., familiar with wildlife, plants, and habitats in Yolo County). The reconnaissance-level survey shall include the following elements:

- Prior to the reconnaissance-level survey, the qualified biologist shall conduct a data review to determine the special-status plant, special-status wildlife, sensitive habitats (e.g., federally-protected wetlands, waters of the state, riparian habitat, sensitive natural communities) that have the potential to occur within the proposed activity footprint of the cannabis use. This will include review of the best available, current data including vegetation mapping data, the Yolo HCP/NCCP, and database searches of the CNDDB and the CNPS Inventory of Rare and Endangered Plants of California.

- The qualified biologist shall map land cover, identify natural communities, and assess the habitat suitability of the proposed activity footprint of the cannabis use for special-status plants, special-status wildlife, and sensitive habitats identified as having potential to occur, consistent with the requirements of the Yolo HCP/NCCP for species covered by the plan, and consistent with Term 10 under Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ, if applicable.

- The biologist shall provide a letter report to the applicant and the County with evidence to support a conclusion as to whether special-status species and sensitive habitats are present or are likely to occur within the proposed activity footprint of the cannabis use.

- If the reconnaissance-level survey identifies no potential for special-status plants, special-status wildlife, or sensitive habitats to occur, the applicant will not be subject to additional biological resources protection measures.

- If special-status plants, special-status wildlife, suitable habitat for these species, or sensitive habitats are identified within or adjacent to the proposed activity footprint of the cannabis use, then the following measures would apply.

Species Covered under the Yolo HCP/NCCP

If species covered under the Yolo HCP/NCCP are determined to be present or likely to be present within the proposed activity footprint of the cannabis use, the applicant shall assume presence of these species and satisfy the requirements of the HCP/NCCP.

- If species covered under the Yolo HCP/NCCP that are not listed under CESA or ESA or are only listed under CESA could occur within the proposed activity footprint of the cannabis use, payment of HCP/NCCP mitigation fees and implementation of applicable HCP/NCCP avoidance and minimization measures are required

- If species covered under the Yolo HCP/NCCP that are also listed under both CESA and ESA or only under ESA could occur within the proposed activity footprint of the cannabis use, the applicant must avoid impacts by implementing no-disturbance buffers or redesigning the project until such time as federal permits, authorizations, and procedures/protocols under the HCP portion of the HCP/NCCP can be applied.

Special-Status Species Not Covered under the Yolo HCP/NCCP

If species not covered under the Yolo HCP/NCCP are determined to be present or likely to be present within the proposed activity footprint of the cannabis use, the applicant shall apply biological resource protection measures consistent with state and local requirements as described below:

- If CDFW Species of Special Concern, species listed only under CESA, nesting raptors and native birds protected under California Fish and Game Code, or plants considered by CDFW to be "rare, threatened, or endangered in California" could occur within the proposed activity footprint of the cannabis use, the applicant will retain a qualified biologist to conduct protocol-level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018b], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special-status species, then the qualified biologist will consult with CDFW or USFWS to determine the survey protocol.

- If CDFW Species of Special Concern, species listed only under CESA, or plants considered by CDFW to be "rare, threatened, or endangered in California" are identified within the proposed activity footprint of the cannabis use during protocol-level surveys, then these species will be avoided by implementing no-disturbance buffers or redesigning the project, if feasible.

- If avoidance of CDFW Species of Special Concern, species listed only under CESA, or plants considered by CDFW to be "rare, threatened, or endangered in California" is not feasible, then the applicant will consult with CDFW to determine applicable, established minimization measures for the given species, and will implement these measures. If impacts on species listed under CESA are unavoidable, then the applicant will submit an incidental take permit application to CDFW and receive take authorization before commencing development of the proposed activity footprint of the cannabis use. Conditions of incidental take authorization may include minimization measures to reduce impacts, and compensation for loss of the species including but not limited to purchasing credits from a CDFW-approved mitigation bank.

- If species listed under both CESA and ESA or only under ESA could occur within the proposed activity footprint of the cannabis use, the applicant must avoid impacts by implementing no-disturbance buffers or redesigning the project until such time as federal permits, authorizations, and procedures/protocols can be applied.

Sensitive Habitats

If sensitive habitats, including federally-protected wetlands, waters of the state, riparian habitat, or sensitive natural communities (e.g., elderberry savanna, valley oak woodland) are identified within the proposed activity footprint of the cannabis use, these habitats will be avoided by implementing no-disturbance buffers as required by the SWRCB and the Yolo HCP/NCCP, such that the habitat is completely protected from direct and indirect adverse effects of project development. All ground disturbance, vegetation removal, and staging activities will be prohibited within this no-disturbance buffer, which may require project redesign.

- A delineation of waters of the United States, including identification of hydrology, hydric soils, and hydrophytic vegetation, by a qualified biologist may be required to identify the exact extent of wetland features.

- If federally protected wetlands cannot be avoided by at least 50 feet, then the proposed commercial cannabis operation will not be permitted until such time as cannabis uses may receive federal wetland permitting coverage under Section 404 of the CWA.

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would reduce significant impacts on special-status species and sensitive habitat because it would require applicants to identify the species and habitats during reconnaissance-level and protocol-level surveys, to seek coverage for species covered under the Yolo HCP/NCCP by participating in the plan, to avoid these species and habitats as feasible and as required by

state and federal law, or to seek incidental take coverage for state-listed species. Implementation of this mitigation measure would be consistent with General Plan policies CO-2.3 (preservation of biological communities), CO-2.41 (address impacts to special-status species), and CC-4.11 (technical study biological resources for site-specific applications). Adoption and implementation of the proposed CLUO with Mitigation Measure BIO-1 is not expected to substantially reduce the number or restrict the range of any of these species and impacts would be **less than significant** for all alternatives.

Impact BIO-2: Adversely Affect Riparian Habitat and Other Sensitive Natural Communities

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could adversely affect riparian habitat and other sensitive natural communities if they are present on the site. Construction-related activities, including ground disturbance, riparian vegetation removal, or disturbance of stream and river habitat would be a **significant** impact for all alternatives.

As noted above, between 18 and 379 acres of land conversion could result from the CLUO, depending on the alternative.

The County contains approximately 12,500 acres of riparian habitat (see Table 3.4-1). Riparian habitat within the County can be found adjacent to aquatic habitat such as streams and rivers. Four sensitive natural communities are also present: great valley cottonwood riparian forest, great valley mixed riparian forest, elderberry savanna, and valley oak woodland (Exhibit 3.4-3). See "Sensitive Natural Communities," above, for detailed descriptions of communities. Streams supporting riparian and wetland vegetation are regulated by CDFW under Sections 1600–1616 of the California Fish and Game Code, which provides for the protection of fish, wildlife, and native plant resources.

Approximately 81,600 acres of oak woodland habitat occurs within the County. Oak woodlands are considered under the state Oak Woodlands Conservation Act and the Yolo County Oak Woodland Conservation and Enhancement Plan which requires the County to determine whether proposed development would result in conversion of oak woodlands that would have a significant adverse effect on the environment.

Relocation of existing cannabis cultivation sites and construction and operation of new cannabis uses could result in adverse effects to riparian habitat or other sensitive natural communities if present within or adjacent to the activity footprint through habitat removal and/or the spread of invasive plant species.

The CLUO includes the following performance standards that address impacts on sensitive natural communities:

- Section 8-2.1408(D) requires cannabis activities to avoid special-status species and habitats. Permittees must demonstrate compliance with an LSA Agreement pursuant to State Fish and Game Code 1602 if one is required. Permittees shall comply with the minimum 100-foot setback requirement set forth in Policy CO-2.22 of the General Plan as applicable. Permittees must demonstrate compliance with the Yolo HCP/NCCP, if applicable, and subsequent relevant adopted plans.

- Section 8-2.1408(OO) requires that cannabis site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (e.g., biological, cultural, trees) and other appropriate impact mitigation.

- Section 8-2.1408(RR) prohibits the removal of native trees and tree clusters or stands, particularly oak woodlands, remnant valley oaks, and riparian woodlands.

The CLUO also includes the following requirement that would ensure control of invasive plant species on all cannabis uses:

- Section 8-2.1408(B) Agricultural Maintenance: Permittees on agricultural land must demonstrate to the satisfaction of the County Agricultural Commissioner that the majority of the parcel, excluding the area in cannabis cultivation, will be used for agricultural activities and/or will be properly maintained (e.g. weed abatement, pest management, etc.) when not in agricultural use to, among other things. avoid maintenance deficiencies that conflict with agriculture on other nearby properties.

In addition to the CLUO requirements, as discussed above in Section 3.4.2 "Regulatory Setting," cannabis cultivation sites subject to compliance with Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ that includes the following requirements (terms):

- Term 10: Prior to commencing any cannabis land development or site expansion activities the cannabis cultivator shall retain a qualified biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a no-disturbance buffer to protect identified sensitive plant, wildlife species, and communities.

- Term 37: Cannabis cultivators shall comply with the minimum riparian setbacks described in Table 3.4-7 for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, water storage areas, and chemical toilet placement).

CLUO performance standards that are based on General Plan policies identified in Section 3.4.2, "Regulatory Setting," and SWRCB requirements would reduce the likelihood of adverse effects on most sensitive natural communities to a less-than-significant level. CLUO performance standards and General Plan and SWRCB requirements would also reduce impacts on riparian and oak woodland habitat by requiring riparian setbacks from aquatic habitat and prohibiting removal of trees (including riparian woodland). Section 1408(D) of the CLUO and Term 10 of Attachment A of SWRCB Order WQ 2019-0001-DWQ would further reduce impacts on sensitive natural communities by requiring identification of sensitive communities and special-status species habitat (e.g., elderberry shrubs within elderberry savanna habitat) within the activity footprint and avoidance of these habitats if found (e.g., by implementation of buffers).

Construction impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO may include vegetation removal, grading and/or trenching, or conversion of natural habitats (see Appendix D). While CLUO and SWRCB requirements would help prevent adverse effects on riparian habitat associated with surface water features and sensitive natural communities that provide habitat for wildlife, adverse effects may not be fully prevented. The riparian setbacks described in Table 3.4-7 may not cover the full extent of riparian habitat adjacent to a waterway. In addition, if sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats.

Operational impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO are not expected to result in adverse effects on riparian habitat associated with surface water features or sensitive natural that provide habitat for wildlife because their operations would be retained within the activity footprint of the parcel and would be required to comply with the water quality control standards in CLUO Section 8-2.1408(J) and SWRCB Order WQ 2019-0001-DWQ.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential

ground disturbance contained within existing developed parcels, no significant impacts to riparian habitat or sensitive communities are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation. Of the total land assumed available for cultivation site relocation under this alternative, approximately 92 percent contains agricultural uses and approximately 2 percent contains urban/suburban development (Table 3.4-4; Exhibit 3.4-6). Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to convert approximately 18 acres of existing land cover.

While the land available for relocation of these nine cannabis cultivation sites contains predominately agricultural land, it also contains approximately 246 acres of riparian habitat and 120 acres of oak woodland habitat.

CLUO and SWRCB requirements would prevent impacts on oak woodland habitat and elderberry savanna habitat and would reduce the likelihood of adverse effects on riparian habitat, as described above. In addition, if sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats. Additionally, specific avoidance measures to prevent disturbance or direct impacts on these habitats would be required in excess of CLUO performance standards and SWRCB requirements (e.g., buffers).

This impact would be **significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 54 new cannabis cultivation and noncultivation uses that could disturb approximately 164 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-7). It assumed that the available land area for this alternative contains approximately 51 percent consists of agricultural uses (Table 3.4-4, Exhibit 3.4-7).

Because approximately half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 2 is assumed to contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to riparian and oak woodland habitat, which make up approximately 2,300 acres and 56,600 acres of the available land assumed under Alternative 2, respectively. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could result in direct or indirect impacts on these sensitive natural communities. Additionally, these activities could result in inadvertent introduction of invasive plant species on construction equipment.

CLUO and SWRCB requirements would prevent impacts on oak woodland habitat and elderberry savanna habitat and would reduce the likelihood of adverse effects on riparian habitat, as described above. If sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats. Additionally, specific avoidance measures to prevent disturbance or direct impacts on these habitats would be required in excess of CLUO performance standards and SWRCB requirements (e.g., buffers).

This impact would be **significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites and the additional 186 new cannabis cultivation and noncultivation uses could disturb approximately 379 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-8). It assumed that the available land area for this alternative contains approximately 74 percent agricultural uses and 10 percent annual grassland (Table 3.4-4; Exhibit 3.4-8).

Because a majority of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 3 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to riparian and oak woodland habitat, which make up approximately 7,000 acres and 59,000 acres of the available land assumed under Alternative 3, respectively. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could result in direct or indirect impacts on these sensitive natural communities.

CLUO and SWRCB requirements would prevent impacts on oak woodland habitat and elderberry savanna habitat and would reduce the likelihood of adverse effects on riparian habitat, as described above. If sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats. Additionally, specific avoidance measures to prevent disturbance or direct impacts on these habitats would be required in excess of CLUO performance standards and SWRCB requirements (e.g., buffers).

This impact would be **significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types

This alternative assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning restrictions. It also assumes the conversion of 75 of the existing and eligible cannabis sites with outdoor cultivation to entirely indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of two new mixed-light or indoor cultivation sites and a total or 52 new noncultivation uses. Relocations of nine cultivation sites and the development of 54 new cannabis cultivation and noncultivation uses would disturb approximately 122 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-9). It assumed that the available land area for this alternative contains approximately 56 percent agricultural uses and 14 percent annual grassland (Table 3.4-4; Exhibit 3.4-9).

Because over half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 4 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to riparian and oak woodland habitat, which make up approximately 4,500 acres and 59,900 acres of the available land assumed under Alternative 4, respectively. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could result in direct or indirect impacts on these sensitive natural communities.

CLUO and SWRCB requirements would prevent impacts on oak woodland habitat and elderberry savanna habitat and would reduce the likelihood of adverse effects on riparian habitat, as described above. If sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats. Additionally, specific avoidance measures to prevent disturbance or direct impacts on these habitats would be required in excess of CLUO performance standards and SWRCB requirements (e.g., buffers).

This impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 52 new cannabis cultivation and noncultivation uses. Relocation and new cannabis uses assumed under this alternative could disturb approximately 163 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-10). It assumed that the available land area for this alternative contains approximately 51 percent agricultural uses and 16 percent annual grassland (Table 3.4-4; Exhibit 3.4-10).

Because half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 5 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to riparian and oak woodland habitat, which make up approximately 2,300 acres and 56,600 acres of the available land assumed under Alternative 5, respectively. As a result, relocation of existing and eligible cultivation sites or development of new cannabis operations could result in direct or indirect impacts on these sensitive natural communities.

CLUO and SWRCB requirements would prevent impacts on oak woodland habitat and elderberry savanna habitat and would reduce the likelihood of adverse effects on riparian habitat, as described above. If sensitive natural communities are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of these important habitats. Additionally, specific avoidance measures to prevent disturbance or direct impacts on these habitats would be required in excess of CLUO performance standards and SWRCB requirements (e.g., buffers).

This impact would be **significant** under Alternative 5.

Mitigation Measures

Mitigation Measure BIO-2: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would reduce impacts on sensitive habitats and sensitive natural communities because applicants would be required to identify and avoid these habitats. After implementation of this Mitigation Measure, impacts would be **less than significant** for all alternatives.

Impact BIO-3: Adversely Affect State-Protected or Federally Protected Wetlands

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could adversely affect state or federally protected wetlands (e.g., marsh, vernal pool). While CLUO and SWRCB requirements would reduce the likelihood of adverse effects on wetlands, there would still be potential for impact because presence of habitat may only be determined through site-specific habitat evaluations. This impact would be **significant** for all alternatives.

As identified in Table 2-5 and Section 3.0, “Approach to the Environmental Analysis,” between 18 and 379 acres of land conversion could result from the CLUO, depending on the alternative.

The County contains approximately 40,000 acres of aquatic habitat, including major rivers and creeks (e.g., Sacramento River, Cache Creek, Putah Creek) and associated tributaries, lakes, wetlands, and vernal pools (Exhibit 3.4-1; Table 3.4-1). Relocation of existing and eligible cannabis cultivation sites and development of

new cannabis operations could result in adverse effects to state or federally protected wetlands if present within or adjacent to the activity footprint.

The CLUO includes the following performance standards that address impacts on state or federally protected wetlands:

- Section 8-2.1408(D) requires cannabis activities to avoid special-status species and habitats. Permittees must demonstrate compliance with an LSA Agreement pursuant to State Fish and Game Code 1602 if one is required. Permittees shall comply with the minimum 100-foot setback requirement set forth in Policy CO-2.22 of the General Plan as applicable. Permittees must demonstrate compliance with the Yolo HCP/NCCP, if applicable, and subsequent relevant adopted plans.

- Section 8-2.1408(OO) requires that cannabis site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (e.g., biological, cultural, trees) and other appropriate impact mitigation.

In addition to these requirements, as discussed above in Section 3.4.2 "Regulatory Setting," cannabis cultivation sites subject to compliance with Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ that includes the following requirements (terms):

- Term 10: Prior to commencing any cannabis land development or site expansion activities, the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a nodisturbance buffer to protect identified sensitive plant, wildlife species, and communities. A copy of the report shall be submitted to the appropriate Regional Water Board.

- Term 37: Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, off-stream water storage areas, and chemical toilet placement) (see Table 3.4-7). The riparian setbacks shall be measured from the waterbody's bankfull stage (high flow water levels that occur every 1.5 to 2 years) or from the top edge of the waterbody bank in incised channels, whichever is more conservative. Riparian setbacks for springheads shall be measured from the springhead in all directions (circular buffer). Riparian setbacks for wetlands shall be measured from the edge of wetland as delineated by a Qualified Professional with experience implementing the Corps of Engineers Wetlands Delineation Manual (with regional supplements). The Regional Water Board Executive Officer may require additional riparian setbacks or additional requirements, as needed, to meet the performance requirement of protecting surface water from discharges that threaten water quality. If the cannabis cultivation site cannot be managed to protect water quality, the Executive Officer of the applicable Regional Water Board may revoke authorization for cannabis cultivation activities at the cannabis cultivation site.

CLUO performance standards that are based on General Plan policies identified in Section 3.4.2, "Regulatory Setting," and SWRCB requirements would reduce the likelihood of adverse effects on most state or federally protected wetlands to a less-than-significant level. CLUO performance standards and General Plan and SWRCB requirements require riparian setbacks from aquatic habitat. Section 1408(D) of the CLUO and Term 10 of Attachment A of SWRCB Order WQ 2019-0001-DWQ would further reduce impacts on wetlands by requiring identification of these features, which provide habitat for special-status species, within the activity footprint and avoidance of these habitats if found (e.g., by implementation of buffers).

Construction impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO may include vegetation removal, grading and/or trenching, or conversion of natural habitats (see Appendix D). While CLUO and SWRCB requirements would help prevent adverse effects on wetlands, adverse effects may not be fully prevented. If wetlands are

not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of degradation of wetlands through fill or other disturbances.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant impacts to state and federal wetlands are expected.

Operation impacts as a result of adoption and implementation of the proposed CLUO are not expected to result in adverse effects on wetlands because their operations would be retained within the activity footprint of the parcel and would be required to comply with the water quality control standards in CLUO Section 8-2.1408(J) and SWRCB Order WQ 2019-0001-DWQ.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites. Of the total land assumed available for cultivation site relocation under this alternative, approximately 92 percent contains agricultural uses and approximately 2 percent contains urban/suburban development (Table 3.4-4; Exhibit 3.4-6). Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to convert approximately 18 acres of existing land cover (see Table 2-5).

CLUO, HCP/NCCP, SWRCB, and County requirements pursuant to the proposed CLUO would likely prevent most direct impacts on state or federally protected wetlands. However, if wetlands are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss or degradation of wetlands through fill or other disturbances.

This impact would be **significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 54 new cannabis cultivation and noncultivation uses that could disturb approximately 164 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-7). It assumed that the available land area for this alternative contains approximately 51 percent consists of agricultural uses (Table 3.4-4, Exhibit 3.4-7).

Because approximately half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 2 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to wetland and other aquatic habitat, which makes up approximately 300 acres of the available land under Alternative 2. Additionally, agricultural habitat, primarily pastureland, can be associated with wetland habitat, including vernal pools. Some of these aquatic features throughout the County have been identified, but it is likely that many have not been.

CLUO and SWRCB requirements would likely prevent most direct impacts on state or federally protected wetlands. However, if wetlands are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss or degradation of wetlands through fill or other disturbances.

This impact would be **significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites and the additional 186 new cannabis cultivation and noncultivation uses could disturb approximately 379 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-8). It assumed that the available land area for this alternative contains approximately 74 percent agricultural uses and 10 percent annual grassland (Table 3.4-4; Exhibit 3.4-8).

Because a majority of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 3 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to wetland and other aquatic habitat, which makes up approximately 3,000 acres of the available land under Alternative 3. Additionally, agricultural habitat, primarily pastureland, can be associated with wetland habitat, including vernal pools. Some of these aquatic features throughout the County have been identified, but it is likely that many have not.

CLUO and SWRCB requirements would likely prevent most direct impacts on wetlands and other waters of the United States. However, if wetlands are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures are not implemented, these activities could result in the loss of degradation of wetlands through fill or other disturbances.

Thus, this impact would be **significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types

This alternative assumes the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites, and the conversion of 75 of the existing and eligible cannabis sites with outdoor cultivation entirely to indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of two new mixed-light or indoor cultivation sites and a total or 52 new noncultivation uses. Relocations of nine cultivation sites and the development of 54 new cannabis cultivation and noncultivation uses would disturb approximately 122 acres located within a number of different habitat types (Exhibit 3.4-9). It assumed that the available land area for this alternative contains approximately 56 percent agricultural uses and 14 percent annual grassland (Table 3.4-4; Exhibit 3.4-9).

Because over half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 4 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to wetland and other aquatic habitat, which makes up approximately 600 acres of the available land under Alternative 4. Additionally, agricultural habitat, primarily pastureland, can be associated with wetland habitat, including vernal pools. Some of these aquatic features throughout the County have been identified, but it is likely that many have not been.

CLUO and SWRCB requirements would likely prevent most direct impacts on wetlands and other waters of the United States. However, if wetlands are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of degradation of wetlands through fill or other disturbances.

This impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the addition of 52 new cannabis cultivation and noncultivation uses. Relocation and new cannabis uses assumed under this alternative could disturb approximately 163 acres located within a number of different habitat types (Exhibit 3.4-10). It assumed that the available land area for this alternative contains approximately 51 percent agricultural uses and 16 percent annual grassland (Table 3.4-4; Exhibit 3.4-10).

Because half of the assumed land available for relocation or new development contains agricultural uses, assuming existing and eligible cultivation sites required to relocate would relocate near their current locations and development of new cannabis operations would be concentrated in areas where existing cultivation areas are located, it is assumed for analysis purposes that most of the land area affected under Alternative 5 would contain agricultural land cover types; likely either row crop/grain or orchard and vineyard. However, some of the available agricultural land in the County is located adjacent to wetland and other aquatic habitat, which makes up approximately 300 acres of the available land under Alternative 5. Additionally, agricultural habitat, primarily pastureland, can be associated with wetland habitat, including vernal pools. Some of these aquatic features throughout the County have been identified, but it is likely that many have not been.

CLUO and SWRCB requirements would likely prevent most direct impacts on wetlands and other waters of the United States. However, if wetlands are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures implemented, these activities could result in the loss of degradation of wetlands through fill or other disturbances.

This impact would be **significant** under Alternative 5.

Mitigation Measures

Mitigation Measure BIO-3: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would reduce impacts on state or federally protected wetlands to a **less-than-significant** level for all alternatives because applicants would be required to identify and avoid these features. This mitigation measure also provides the option for federal wetland permitting coverage under Section 404 of the CWA should it become available in the future.

Impact BIO-4: Interfere Substantially with the Movement of Resident or Migratory Wildlife Species or with Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could adversely affect resident or migratory wildlife corridors through habitat fragmentation, or blockage of important wildlife migration paths. Cannabis uses could also result in conversion of areas that function as wildlife nurseries or affect a species' ability to access these nurseries. This impact would be **significant** for all alternatives.

As noted above, between 18 and 379 acres of land conversion could result from the CLUO, depending on the alternative.

Yolo County has designated approximately 545,000 acres as Agriculture under the General Plan. Agricultural lands typically do not provide high-quality natural habitat for wildlife nurseries or movement. Agricultural land uses also often contain associated infrastructure (e.g., roads, fencing) that may act as barriers to wildlife movement as well. There are also large areas of natural habitat, including grassland (approximately 81,000 acres), oak woodland (approximately 80, 000 acres), and chamise and mixed chaparral (approximately 45,000 acres). This natural habitat is concentrated in relatively undeveloped areas within the Dunnigan Hills and the California Coast Range and provides wildlife habitat and connectivity with other natural habitats in the surrounding region (Exhibit 3.4-5). Aquatic wildlife movement corridors within the County include major rivers and creeks and associated tributaries. Several anadromous fish species, including chinook salmon and steelhead, occur within riverine habitat in Yolo County. Relocation of existing and eligible cannabis cultivation sites and development of new cannabis operations could result in adverse effects to migratory wildlife corridors or native wildlife nursery sites if present within or adjacent to the activity footprint.

The CLUO includes the following performance standards that address impacts on resident or migratory wildlife corridors or native wildlife nursery sites:

- Section 8-2.1408(D) requires cannabis activities to avoid special-status species and habitats. Permittees must demonstrate compliance with an LSA Agreement pursuant to State Fish and Game Code 1602 if one is required. Permittees shall comply with the minimum 100-foot setback requirement set forth in Policy CO-2.22 of the General Plan as applicable. Permittees must demonstrate compliance with the Yolo HCP/NCCP, if applicable, and subsequent relevant adopted plans.

- Section 8-2.1408(NN) requires that cannabis site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (e.g., biological, cultural, trees) and other appropriate impact mitigation.

In addition to these requirements, as discussed above in Section 3.4.2 “Regulatory Setting,” cannabis cultivation sites subject to compliance with Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ that includes the following requirements (terms):

- Term 10: Prior to commencing any cannabis land development or site expansion activities, the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a nodisturbance buffer to protect identified sensitive plant, wildlife species, and communities. A copy of the report shall be submitted to the appropriate Regional Water Board.

- Term 37: Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, off-stream water storage areas, and chemical toilet placement) (see Table 3.4-7). The riparian setbacks shall be measured from the waterbody’s bankfull stage (high flow water levels that occur every 1.5 to 2 years) or from the top edge of the waterbody bank in incised channels, whichever is more conservative. Riparian setbacks for springheads shall be measured from the springhead in all directions (circular buffer). Riparian setbacks for wetlands shall be measured from the edge of wetland as delineated by a Qualified Professional with experience implementing the Corps of Engineers Wetlands Delineation Manual (with regional supplements). The Regional Water Board Executive Officer may require additional riparian setbacks or additional requirements, as needed, to meet the performance requirement of protecting surface water from discharges that threaten water quality. If the cannabis cultivation site cannot be managed to protect water quality, the Executive Officer of the applicable Regional Water Board may revoke authorization for cannabis cultivation activities at the cannabis cultivation site.

All licensed cannabis cultivation operations are required to comply with the numeric and narrative instream flow requirements for all diversions of surface water and groundwater as part of compliance with Attachment A (Section 3 – Numeric and Narrative Instream Flow Requirements) of SWRCB Order WQ 2019-0001-DWQ. These requirements include design requirements for fish screens, diversion structures, off-stream storage reservoirs, and storage bladders.

Diversion provisions of the standards are based on three types of requirements to ensure sufficient instream flows:

- dry season forbearance period and limitations on the wet season diversions,
- narrative instream flow requirements, and
- numeric instream flow requirements during the wet season.

Additionally, as a condition of project approval, all proposed cannabis operations are required to participate in the Yolo HCP/NCCP. The Yolo HCP/NCCP requires applicants to pay fees for land conversion activities, and in turn would use these fees to establish a preserve system to preserve natural habitats in the County.

CLUO performance standards that are based on General Plan policies identified in Section 3.4.2, "Regulatory Setting," and SWRCB requirements would reduce the likelihood of adverse effects on most habitat that functions as wildlife corridors and native wildlife nursery sites to a less-than-significant level. CLUO performance standards and General Plan and SWRCB requirements require riparian setbacks from aquatic habitat. Section 8-2.1408(D) of the CLUO and Term 10 of Attachment A of SWRCB Order WQ 2019-0001-DWQ would further reduce impacts to wildlife movement corridors and wildlife nursery sites by requiring identification of features that provide habitat for special-status species within the activity footprint, and avoidance of these habitats if found (e.g., by implementation of buffers). Term 3 of the Attachment A of SWRCB Order WQ 20190-0001-DWQ would further reduce impacts to aquatic wildlife corridors by requiring that diversions of surface water and groundwater comply with instream flow requirements. Thus, no aquatic wildlife movement impacts are expected under any of the alternatives.

Construction impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO may include vegetation removal, grading and/or trenching, or conversion of natural habitats (See Appendix D). While CLUO and SWRCB requirements would help prevent adverse effects on features used for wildlife movement, adverse effects may not be fully prevented. If these features are not identified before construction associated with cannabis operations and appropriate protective buffers or other measures are implemented, these activities could result in the loss of disruption of important wildlife movement corridors or nursery sites.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant impacts to wildlife movement or nursery sites are expected.

Operation impacts as a result of adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO are not expected to result in adverse effects on wildlife movement corridors or wildlife nursery sites because their operations would be retained within the activity footprint of the parcel.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites. Of the total land assumed available for cultivation site relocation under this alternative, approximately 92 percent contains agricultural uses and approximately 2 percent contains urban/suburban development

(Table 3.4-4; Exhibit 3.4-6). Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to convert approximately 18 acres (see Table 2-5) of existing land cover. While relocations may occur within the habitat connectivity corridors shown in Exhibit 3.4-5, no new cannabis uses would occur.

Adverse effects to terrestrial wildlife corridors could include land conversion of natural habitats, construction of structures or other infrastructure (e.g., fencing, roads). CLUO, Yolo HCP/NCCP, SWRCB, and General Plan requirements would help prevent, but not fully prevent, adverse effects to wildlife nursery sites or wildlife movement corridors.

This impact would be **significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 54 new cannabis cultivation and noncultivation uses that could disturb approximately 164 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-7). It assumed that the available land area for this alternative contains approximately 51 percent agricultural uses (Table 3.4-4, Exhibit 3.4-7). Alternative 2 would locate 14 new cannabis uses within the habitat connectivity corridors shown in Exhibit 3.4-5.

Adverse effects to terrestrial wildlife corridors could include land conversion of natural habitats, construction of structures or other infrastructure (e.g., fencing, roads). CLUO, Yolo HCP/NCCP, SWRCB, and General Plan requirements would help minimize, but not fully prevent, adverse effects to wildlife nursery sites or wildlife movement corridors.

This impact would be **significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites and the additional 186 new cannabis cultivation and noncultivation uses could disturb approximately 379 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-8). It assumed that the available land area for this alternative contains approximately 74 percent agricultural uses and 10 percent annual grassland (Table 3.4-4; Exhibit 3.4-8). Alternative 3 would locate 32 new cannabis uses within the habitat connectivity corridors shown in Exhibit 3.4-5.

Adverse effects to terrestrial wildlife corridors could include land conversion of natural habitats, construction of structures or other infrastructure (e.g., fencing, roads). CLUO, Yolo HCP/NCCP, SWRCB, and General Plan requirements would help prevent, but not fully prevent, adverse effects to wildlife nursery sites or wildlife movement corridors.

This impact would be **significant** under Alternative 3.

Alternative 4: Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types

This alternative assumes the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites, and the conversion of 75 of the existing and eligible cannabis sites with outdoor cultivation to indoor or mixed-light (greenhouse) cultivation. This alternative is also assumed to result in the construction of two new mixed-light or indoor cultivation sites and a total or 52 new noncultivation uses. Relocations of nine cultivation sites and the development of 54 new cannabis cultivation and noncultivation uses would disturb approximately 122 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-9). It assumed that the available land area for this alternative contains approximately 56 percent agricultural uses and 14 percent annual grassland (Table 3.4-4; Exhibit 3.4-9). Alternative 4 would locate 14 new cannabis uses within the habitat connectivity corridors shown in Exhibit 3.4-5.

Adverse effects to terrestrial wildlife corridors could include land conversion of natural habitats, construction of structures or other infrastructure (e.g., fencing, roads). CLUO, Yolo HCP/NCCP, SWRCB, and General Plan requirements would help prevent, but not fully prevent, adverse effects to wildlife nursery sites or wildlife movement corridors.

This impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the addition of 52 new cannabis cultivation and noncultivation uses. Relocation and new cannabis uses assumed under this alternative could disturb approximately 163 acres (see Table 2-5) located within a number of different habitat types (Exhibit 3.4-10). It assumed that the available land area for this alternative contains approximately 51 percent agricultural uses and 16 percent annual grassland (Table 3.4-4; Exhibit 3.4-10). Alternative 5 would locate 15 new cannabis uses within the habitat connectivity corridors shown in Exhibit 3.4-5.

Adverse effects to terrestrial wildlife corridors could include land conversion of natural habitats, construction of structures or other infrastructure (e.g., fencing, roads). CLUO, Yolo HCP/NCCP, SWRCB, and General Plan requirements would help prevent, but not fully prevent, adverse effects to wildlife nursery sites or wildlife movement corridors.

This impact would be **significant** under Alternative 5.

Mitigation Measures

Mitigation Measure BIO-4: Implement Mitigation Measure BIO-1: Conduct Preapproval Biological Reconnaissance Surveys, Participate in the Yolo HCP/NCCP, Implement Avoidance and Minimization Measures, and Obtain Applicable Permits (Alternatives 1, 2, 3, 4, and 5)

Significance after Mitigation

Implementation of Mitigation Measure BIO-1 would require applicants to determine if there is potential presence of wetlands and sensitive habitats and avoid them, to participate in the Yolo HCP/NCCP, and to pay fees to compensate for conversion of habitat and protect the ability of wildlife species to move and nest in the County. This mitigation would reduce impacts on wildlife movement corridors and wildlife nursery sites to a **less-than-significant** level for all alternatives.

Impact BIO-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources

The CLUO incorporates County polices and standards that provide protection of biological resources. Therefore, there would be **no impact** under any of the alternatives.

The CLUO performance standards incorporate biological protection measures that are based on General Plan policies, Yolo HCP/NCCP, County Oak Woodland Conservation and Enhancement Plan, and the SWRCB Order WQ 20190-0001-DWQ. These include:

- Section 8-2.1408(D) (Biological Resources) requires preparation of a Biological Resource Assessment, avoidance or mitigation of special-status species and habitats, and compliance with the Yolo HCP/NCCP (General Plan policies CO-2.3, CO-2.4, CO-2.14, CO-2.22, CO-2.38, CO-2.41, and CC-4.11).

- Section 8-2.1408(J) (Drainage and Storm Water Discharge) requires compliance with the SWRCB Order WQ 20190-0001-DWQ.

- Section 8-2.1408(RR) (Tree Protection) encourages the protection of trees consistent with the General Plan and County Oak Woodland Conservation and Enhancement Plan. This section also prohibits the removal of tree clusters, oak woodlands, remnant valley oaks, and riparian woodlands (General Plan policies CO-2.3, CO-2.9, CO-2.14, and CO-2.16).

- Section 8-2.1410(C)(2) (Site Specific Information) requires the submittal of a Biological Resource Assessment (General Plan Policy CC-4.11).

The performance standards of the CLUO would apply equally to all five alternatives. As demonstrated above, adoption and implementation of the CLUO would implement County policy provisions for biological resources. **No impact** would occur under all the alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact BIO-6: Conflict with the Yolo HCP/NCCP

Section 8-2.1408(D) of the CLUO requires all development associated with cannabis operations from implementation of the CLUO to comply with the Yolo HCP/NCCP. Therefore, there would be **no impact** under any of the alternatives.

CLUO Section 8-2.1408(D) requires all permittees to demonstrate compliance with the Yolo HCP/NCCP. The CLUO would have **no impact** to the Yolo HCP/NCCP under any of the alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact BIO-7: 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

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in land use conversion and development which could adversely affect common fish, wildlife, or plant species under each of the five alternatives. Implementation of the CLUO and SWRCB requirements would prevent most direct impacts on natural habitat, including wetlands, aquatic habitat, and riparian habitat. Additionally, because CLUO implementation would occur within relatively small proportions of the extensive ranges of common species, and suitable habitat would remain available to these species across the broader landscape within and surrounding the County, the magnitude of these potential losses is not expected to substantially reduce the overall abundance of any common species or substantially reduce the habitat for these species. This impact would be **less than significant** for all alternatives.

Suitable foraging, breeding, and sheltering habitat for common native bird, mammal, amphibian, reptile, and other animal species is ubiquitous throughout the County. These common species do not meet the criteria for special-status species as defined in this EIR; however, mandatory findings of significance pursuant to the CEQA Guidelines require consideration of whether a project would "substantially degrade the quality of the environment, reduce habitat of wildlife species, cause wildlife populations to drop below self-sustaining levels, or threaten to eliminate a plant or animal community." Because of the numerous common wildlife species distributed throughout the County, adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could disturb or otherwise affect many common native species. Additionally, some common wildlife species are subject to state or federal regulatory protections. For example, native nesting birds are protected under Sections 3503 and 3503.5 of the California Fish and Game Code and the MBTA.

CLUO and SWRCB requirements would prevent most direct impacts on common wildlife species. However, the effects on individual species as a result of construction and operation impacts described previously for Impact BIO-1 (for special-status species) and Impact BIO-4 (for wildlife movement and nursery sites of common species) would generally be the same for common wildlife species. Temporary disturbances to foraging patterns, local movements, and reproductive activities of common bird, mammal, reptile, and amphibian species resulting from construction and operation under the proposed CLUO would occur in some locations. However, common wildlife species are generally well-distributed, abundant, and adapted to varying levels of natural and anthropogenic disturbances. Temporary disturbances and displacement of animals associated with adoption and implementation of the proposed CLUO would occur locally (and, in some cases, over short periods of time in a given area) and are not expected to affect significant portions of an individual's foraging or breeding range, or the overall distribution of a common species. CLUO Section 8-2.1408(D) requires permittees to avoid or mitigate impacts to special-status species and habitats as well as participate in the Yolo HCP/NCCP.

In view of the relatively limited amount of disturbance and habitat loss in the context of the extensive range of common terrestrial species, there is no evidence that any of these criteria would be met, particularly in consideration of existing requirements and project actions that would avoid and minimize the potential impacts on common wildlife.

This impact would be **less than significant** for all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

3.5 CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources as a result of adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include prehistoric resources, historic-era resources, and tribal cultural resources (the latter as defined by AB 52, Statutes of 2014, in PRC Section 21074). This section also analyzes archaeological, historical, and tribal cultural resources. Paleontological resources are discussed in Section 3.7, "Geology and Soils."

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or architectural or built environment) resources include standing buildings (e.g., houses, barns, outbuildings, cabins), intact structures (e.g., dams, bridges, wells), or other remains of human's alteration of the environment (e.g., foundation pads, remnants of rock walls). Tribal cultural resources were added as a distinct resource subject to review under CEQA, effective January 1, 2015, under AB 52. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR) or local registers of historical resources.

A comment letter requesting an increase of the proposed buffers between cannabis activities and sacred cultural lands to 1,000 feet for all the alternatives and an evaluation of all impacts associated with cultural resources was received in response to the NOP from the Yocha Dehe Wintun Nation. These comments were considered in the preparation of this analysis. A summary of the consultation with the Yocha Dehe Wintun Nation is provided below. The reader is referred to Appendix A for comment letters received on the NOP.

3.5.1 Environmental Setting

The Yolo County General Plan EIR setting section for cultural resources includes a detailed discussion of the prehistoric, ethnographic, and historical settings of Yolo County (Yolo County 2009:517–529). This section presents a brief summary of those discussions as well as cultural resources records searches conducted in 2019. The environmental setting information provided below addresses the County as a whole and does not specifically differentiate between conditions in the individual cities (i.e., Davis, West Sacramento, Winters, and Woodland).

PREHISTORIC SETTING

It is probable that humans have inhabited the Sacramento Valley for the last 10,000 years. However, evidence for early occupation is likely deeply buried under alluvial sediments deposited during the late Holocene. Although rare, archaeological remains of the early period have been identified in and around the Central Valley. Early archaeological manifestations are categorized as the Farmington Complex, which is characterized by core tools and large, reworked percussion flakes.

Later periods are better understood because the archaeological record is more abundantly represented. Three general patterns of cultural manifestations have been identified for the period between 4500 Before Present (B.P.) and 3000 B.P.: the Windmiller Pattern, the Berkeley Pattern, and the Augustine Pattern.

The Windmiller Pattern (4500 B.P.–3000 B.P.) shows evidence of a mixed economy of game procurement and use of wild plant foods. The archaeological record contains numerous projectile points with a wide range of faunal remains. Hunting was not limited to terrestrial animals, as is evidenced by fishing hooks and

spears that have been found in association with the remains of sturgeon, salmon, and other fish. Plants also were used, as indicated by ground stone artifacts and clay balls that were used for boiling acorn mush. Settlement strategies during the Windmiller period reflect seasonal adaptations: Habitation sites in the valley were occupied during the winter months, but populations moved into the foothills during summer.

The Windmiller Pattern ultimately changed to a more specialized adaptation labeled the Berkeley Pattern (3500 B.P.–2500 B.P.). A reduction in the number of manos and metates (stone tools for grinding) and an increase in mortars and pestles indicate a greater dependence on acorns. Although gathered resources gained importance during this period, the continued presence of projectile points and atlatls (spear-throwers) in the archaeological record indicates that hunting was still an important activity.

The Berkeley Pattern was superseded by the Augustine Pattern (1500 B.P.–200 B.P.). The Augustine Pattern is characterized by a change in technology and subsistence strategies. Bow and arrow technology is introduced, as evidenced by a growing increase in the number of small projectile points in Augustine Pattern lithic assemblages. Mortar and pestle implements continue to be used, with acorns becoming the dominant staple. Trade also expands and intensifies at this time, with the acquisition of both exotic finished goods and raw materials. Augustine Pattern mortuary patterns are characterized by either cremation or burial of the dead within habitation areas of a site, preinternment gravel pit burning, a flexed position of the body with variable orientations, and a differential distribution of grave goods with more items being associated with cremations compared to subsurface burial. Indeed, cremations may have been reserved for relatively wealthy and prestigious individuals.

ETHNOGRAPHIC SETTING

Yolo County includes portions of territories of two Native American groups: the Patwin and the Plains Miwok. Both groups speak languages classified as part of the Penutian linguistic stock. Penutian speakers appear to have entered California relatively late in time and settled nearly half the state by approximately 200 years ago. The Patwin occupied most of the County, while the Plains Miwok were more restricted, inhabiting the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River from Rio Vista to Freeport. The material culture and settlement and subsistence patterns of these groups share many similar traits, likely due to historical relationships and a shared natural environment.

Patwin are composed of numerous different tribal groups with separate dialects, but anthropologists usually separate Patwin into two primary subdivisions: Hill Patwin and River Patwin. Hill Patwin occupied the lower, eastern slopes of the southern North Coast Ranges, and River Patwin occupied the west side of the lower Sacramento River below the mouth of the Feather River and the lower reaches of Cache Creek and Putah Creek in the Sacramento Valley.

Patwin were organized into tribelets, which were usually composed of a principal village and a few satellite settlements. Each tribelet had a head chief, and each village had a chief who administered its economic and ceremonial activities. Patwin manufactured a variety of utilitarian and ceremonial/luxury items, including baskets, stone tools, mortars and pestles, shell beads, and clothing. Shell beads were manufactured for personal adornment and as a medium of exchange. River Patwin also built tule balsa boats to facilitate river travel and acquisition of fish resources.

Patwin traded for various commodities and subsistence resources using clamshell disc beads as a medium of exchange. Initially, River Patwin obtained finished shell beads from Hill Patwin, who obtained them from their Pomo neighbors. In the historic period, however, River Patwin traded for whole shells from the Pacific Coast and made beads themselves. Obsidian was obtained from sources in the southern North Coast Ranges, primarily Napa Valley.

The Plains Miwok inhabited the lower reaches of the Mokelumne and Cosumnes Rivers, and the banks of the Sacramento River from Rio Vista to Freeport. The primary sociopolitical unit was the tribelet, consisting

of the residents of several base settlements and their associated seasonal camps. Each tribelet was independent and held and defended specific territories.

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and dogs were domesticated. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in fall and stored through winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Plains Miwok ate more meat in winter when stores of plant resources grew smaller. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Salt was obtained from springs or through trade with people from the Mono Lake area.

Plains Miwok technology included tools of bone, stone, antler, wood, and textile. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage. The Plains Miwok constructed several types of structures: conical habitation structures fashioned from tule matting, earth-covered semisubterranean winter dwellings, acorn granaries, menstrual huts, sweathouses, and conical grinding huts over bedrock mortars.

HISTORICAL SETTING

The Central Valley was explored by Spaniards as early as 1808, including Gabriel Moraga, who guided an expedition up the Sacramento River to present-day Sutter County in search of potential inland mission sites. His excursion was followed in 1817 by Father Narciso Duran, Father Ramon Abella, and Luis Arguello, who established a temporary camp near present-day Clarksburg. In 1821, Arguello and a party of explorers entered the area once again, this time passing through Solano and Yolo Counties before reaching the Sacramento River near Grimes.

During the early 1800s, the region was also explored by hunters and trappers, such as Jedediah Strong Smith, Ewing Young, and Hudson's Bay Company trappers. The hunters found the banks of the rivers and streams rich with beaver, otter, and other animals whose pelts were a highly valuable commodity in the worldwide trade of the time. They used to "cache" their pelts near Cache Creek, hence the name.

The influx of European and Spanish explorers and settlers during the 1830s and 1840s changed Patwin demography. The second quarter of the 19th century encompasses the Mexican Period (ca. 1821–1848) in California. This period is an outgrowth of the Mexican Revolution and its accompanying social and political views, which affected the mission system across California. In 1833, the missions were secularized and their lands divided among many of the elite Mexican families as land grants called ranchos. These ranchos facilitated the growth of a semiaristocratic group that controlled the larger ranchos. Patwin were essentially used as forced labor on many of these large tracts of land.

Simultaneously with the exploration of the Central Valley and the flanks of the Sierra Nevada, settlers blazed trails across the plains and mountains of the central United States, facilitating the westward migration of Euro-Americans. The discovery of gold at Sutter's Mill in Coloma in 1848, however, was the catalyst that caused a dramatic alteration of both Native American and Euro-American cultural patterns in California. Once news of the discovery of gold spread, a flood of Euro-Americans entered the region and gravitated to the area of the "Mother Lode." The population of California quickly swelled from an estimated 4,000 Euro-Americans in 1848 to 500,000 in 1850. The discovery of gold and the large influx of Euro-American immigrants had a positive effect on the growth and economic development of the area, but a negative effect on Native American cultures. The discovery of gold in California marked the beginning of a relatively rapid decline of both Native American populations and culture.

The Gold Rush transformed Yolo County from an isolated farming community to a booming agricultural region, as disenchanted miners realized they could make a greater fortune through farming and ranching rather than gold prospecting. In 1850, 1,086 people lived in the County; by 1870 that number swelled to

9,899. The majority of growth occurred in the central and western parts of the County near roads and fords crossing Putah and Cache Creeks.

Fremont, the County's first town, was founded in 1849 along the confluence of the Sacramento and Feather Rivers (south of present-day Knights Landing). It became the first County seat in 1850. After Fremont suffered flood damage in 1851, the County government was moved to Washington (now West Sacramento). Between 1856 and 1861, the County seat moved from Washington to Cacheville (present-day Yolo) and back to Washington. Flooding finally motivated voters to choose centrally located Woodland as the permanent County seat in 1862.

Transportation

As the County developed, the area's transportation improved. Although early rancho boundaries commonly served as transportation routes, growth and land subdivision led to the creation of travel corridors. The demand for more direct transportation routes resulted in the construction of several railroad lines throughout the County, including the Central Pacific Railroad (1876) and the California Pacific (1868). By 1871, rail lines extended from Vallejo to Dixon, Davisville (now Davis), Washington (West Sacramento), Woodland, and Vacaville.

Farmers in the southwestern portion of the County were faced with poor transportation options, as no rail lines were close enough to serve their needs. Growers were forced to haul their goods to market by horse and wagon in Sacramento and beyond. The owners of the Vaca Valley Railroad Company recognized this dilemma and in 1857, the southern leg of the Vaca Valley Railroad was laid, which resulted in the permanent establishment of the town of Winters. In 1877, the Vaca Valley and Clear Lake Railroad Company was incorporated and extended the line north from Winters to Cache Creek. The Southern Pacific Railroad took over ownership of the Vaca Valley and Clear Lake Railroad Company the following year, and the railroad was extended into the Capay Valley. The new line assisted farmers who were starting to cultivate fruit and nut orchards in the northwest region of the County. As a result of the development, the Capay Valley Land Company laid out new towns, including Brooks, Esparto, Capay (formerly Langville), Cadenasso, Tancred, Guinda, and Rumsey.

Agriculture and Industry

Barley and wheat became the dominant crops in the County starting in the 1860s. Between 1870 and 1900, 25,000 to 35,000 acres of barley were planted each year. Grown primarily for beer production, the barley crop was sold both in the United States and abroad. In 1860, 13,236 acres of wheat were planted, and by 1893, the acreage had increased to 231,306. In 1893, however, a worldwide depression resulting from an overproduction of wheat effectively ended the boom.

Other successful crops included alfalfa, hops, green peas, onions, beans, tomatoes, corn, sugar beets, flax, and grapes. Fruit and nut varieties, such as almond, walnut, cherry, pear, plum, apple, olive, orange, lemon, apricot, peach, nectarine, and berries of all kinds, were also planted. By the mid-1880s, California's fruit industry was thriving and was second only to gold mining in economic importance.

In 1906, the University of California purchased 780 acres near Davis to establish a farm, which was to function as part of the university's College of Agriculture. The Davis farm eventually evolved into a separate campus of the University of California system, the University of California, Davis, and is currently the largest employer in the County.

During the early 1900s, hundreds of miles of levees were constructed to control flooding in the Sacramento Valley. In addition, the Fremont and Sacramento Weirs, the Knights Landing Ridge Cut, and the Yolo Bypass were built as part of massive flood control efforts. These flood control facilities supported reclamation of thousands of acres of land near the Sacramento River. Companies such as River Garden Farms of Knights Landing and Holland Land Company of Clarksburg developed large farms on the land and revitalized many communities.

Although much of Yolo County remained rural with agriculture as the foundation of the economy, areas such as Davis, Woodland, and West Sacramento became increasingly urbanized during the 20th century.

KNOWN CULTURAL RESOURCES IN YOLO COUNTY

Data from Yolo County 2030 Countywide General Plan

The Yolo County General Plan EIR includes a discussion of the recorded cultural resources located throughout the County, including the incorporated cities (Yolo County 2009:529–533). That discussion is summarized here and incorporated by reference.

As of 2019, more than 1,200 cultural resources have been recorded countywide. Of those resources, 275 are archaeological resources. There are 157 prehistoric-era archaeological resources made up primarily of temporary occupation sites, hunting/processing camps, habitation sites, milling stations, lithic scatters, rock features, quarry/single reduction loci, and rock art sites (in order of frequency). There are 118 recorded historic-era archaeological resources, which include homesteading, ranching and agriculture, mining, and town and urban sites. The location of and details regarding archaeological and tribal cultural resources are protected under state law.

The remaining resources are built environment resources, which include buildings, roads, trails, bridges, canals, and railroads associated with the period that begins with the first contact between Euro-Americans and native cultures. The County is rich in historic resources because nonnative settlement dates to the 1830s. Several hundred properties within the County appear to meet the criteria for listing in state and federal historic registers. Sites that are officially listed in the National Register of Historic Places (NRHP) and/or the CRHR are shown in Table 3.5-1 (the NRHP and CRHR are described in more detail below in Section 3.5.2, “Regulatory Setting”), based on data provided on the State Office of Historic Preservation website.

California State Historical Landmarks

The State of California began memorializing sites of statewide historic importance in 1932 with what is now known as the California State Historical Landmarks program. The criteria for consideration have been refined over the long history of this program; today a California Historical Landmark (CHL) must be the first, last, only, or most significant of a type in a large geographic area. Two resources in Yolo County have been designated as CHLs (Table 3.5-1).

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and must be:

- the first, last, only, or most significant of its type in the state or within the local geographic region (city or county);
- associated with an individual or group having a profound influence on the history of the local area;
- a prototype of, or an outstanding example of, a period, style, or architectural movement or construction; or
- one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

If a Point of Historical Interest is subsequently granted status as a CHL, the Point of Historical Interest designation will be retired. Eight resources in Yolo County are Points of Historical Interest (Table 3.5-1). These Points of Historical Interest were generated from the Office of Historic Preservation and a 1986 Historic Resources Survey conducted by Yolo County.

Table 3.5-1 Yolo County Historic Resources by Designation

Resource (Landmark Plaque Number)	Vicinity	NRHP-Listed	CHL	CRHR-Listed	Point of Historical Interest	Locally Designated Historic Resources
Adolph Oeste House	Davis					X
Animal Science Building (N1442)	Davis	X				
Beamer, R. H., House (N1131)	Woodland	X				
B.F. Conaway Ranch House	Woodland					X
Brown/Munk House	Clarksburg					X
Canon School (N177)	Brooks	X				
Capay School (P567)	Capay				X	
Clarence Johnson Home & Shop	Esparto					X
Davis Subway (N2023)	Davis	X				
Downtown Woodland Historic District (N2060)	Woodland	X				
Dresbach-Hunt-Boyer House (N439)	Davis	X				
Esparto Railroad Station	Esparto					X
First National & Home Savings Bank	Knights Landing					X
First Pacific Coast Salmon Cannery Site (N35)	Broderick	X				
Frank N. Bullard House	Woodland					X
Fred Wyatt House	Esparto					X
French Residence	Davis					X
Gable Mansion (864)	Woodland		X			
Gibson, William B., House (N449)	Woodland	X			X	
Gordon Cemetery	Yolo					X
Gotfried Schmiser House	Davis					X
Guinda Corner Store	Guinda					X
Haines Store	Madison					X
Hamilton S. Connor House	Clarksburg					X
Hanney/La Due House	Knights Landing					X
Henry Mefford House	Madison					X
Hext Brothers Farmhouse	Davis					X
Holland Land Company Headquarters	Clarksburg					X
Hotel Woodland (N1881)	Woodland	X				
Husick Hardware	Clarksburg					X
I.O.O.F. Building (N1048)	Woodland	X				
James Borach House	Yolo					X
James Carey Montgomery House	Davis					X
John Snowball Mansion	Knight Landing					X
Joseph T. Cooper House	Yolo					X
Lawler & Cosby General Merchandise	Clarksburg					X

Table 3.5-1 Yolo County Historic Resources by Designation

Resource (Landmark Plaque Number)	Vicinity	NRHP-Listed	CHL	CRHR-Listed	Point of Historical Interest	Locally Designated Historic Resources
Leithold's Drug Store	Knights Landing					X
Leonidas Taylor Monument (P765)	West Sacramento				X	
Lorenz Heinz Ranch	Davis					X
Main Street Historic District– Winters (N1967)	Winters	X				
Mary's Chapel and Cemetery (P213)	Yolo				X	
Masonic Lodge, Knights Landing	Knights Landing					X
Moore, James, House (N697)	Woodland	X				
Nelson Ranch (N186)	Woodland	X				
Nelson Bump House	Clarksburg					X
Porter Building (N710)	Woodland	X				
Robert Baur House	Madison					X
Rumsey Town Hall (N179)	Rumsey	X				
Russell Boulevard (P144)	Davis				X	
Saint Agnes Church (P214)	Woodland				X	
Samuel Carpenter Cottage	Winters					X
Silas/Edson House	Knights Landing					X
Southern Pacific Railroad Station (N450)	Davis	X				
St. Agnes Church	Zamora					X
St. Joseph Church and Rectory	Clarksburg					X
Tufts, Joshua B., House (N816)	Davis	X				
Union Church of Dunnigan (N2210)	Dunnigan	X				
Walnut Street School (N2318)	Woodland	X				
Washington Firehouse (C14)	West Sacramento			X		
William L. Seawright House	Winters					X
William Marcus Jackson House	Woodland					X
Woodland Congregational Church, First Church of Christ Scientist (P374)	Woodland				X	
Woodland Opera House (851)	Woodland	X	X			
Woodland Public Library (N973)	Woodland	X				
"Yolanda"	Woodland					X
Yolo Branch Library (N1666)	Yolo	X				
Yolo County Courthouse (P766)	Woodland				X	
Yolo Library	Yolo					X
Yolo Town Hall	Yolo					X

Notes: CHL = California Historical Landmark; CRHR = California Register of Historical Resources; NRHP = National Register of Historic Places.

Source: Office of Historic Preservation 2019

Tribal Cultural Resources

On March 7, 2018, County staff sent an invitation for early consultation on the decision to undertake the CLUO to tribes requesting notification in Yolo County. This notification, prepared in accordance with AB 52, was sent via e-mail and addressed to the following individuals and tribes:

- James Kinter, Tribal Historic Preservation Officer, Yocha Dehe Wintun Nation;
- Charlie Wright, Chairman, Cortina Rancheria Band of Wintun Indians of California;
- Randy Yonemura, Cultural Committee Chair, Ione Band of Miwok Indians;
- Antonio Ruiz Jr., Cultural Resources Officer, Wilton Rancheria;
- Michael Mirelez, Cultural Resource Coordinator, Torres Martinez Desert Cahuilla Indians; and
- Gene Whitehouse, Chairman, United Auburn Indian Community.

In response to the County's invitation, the County received a letter from Gene Whitehouse, United Auburn Indian Community (UAIC), requesting formal consultation. County staff replied to the UAIC Cultural Resources Manager, Marcos Guerrero, to initiate the consultation process. However, Mr. Guerrero indicated UAIC did not have any comments at the time and requested to close consultation but continue to receive all correspondence on the CLUO process.

The Yocha Dehe Wintun Nation also requested consultation, and in May 2018, the County extended an invitation for consultation on the CLUO and other matters related to the existing cannabis program. Of particular interest, at the time, was the parallel course for the early implementation development agreement applicants and, in particular, those applicants located in the Capay Valley. This consultation process is still underway.

3.5.2 Regulatory Setting

FEDERAL

National Historic Preservation Act

Among those statutes enacted by Congress that affect historic properties, the National Historic Preservation Act of 1966 (NHPA) is the most significant law that addresses historic preservation. One of the most important provisions of the NHPA is the establishment of the NRHP, the official designation of historical resources. Districts, sites, buildings, structures, and objects are eligible for listing in the NRHP. Nominated resources are listed if they are significant in American history, architecture, archaeology, engineering, or culture. The NRHP is administered by the National Park Service. The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. the property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);

2. it retains integrity of location, design, setting, materials, workmanship, feeling, and association; and

3. it possesses at least one of the following criteria:

    A. association with events that have made a significant contribution to the broad patterns of history (events);

    B. association with the lives of persons significant in the past (persons);

    C. distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture); or

    D. has yielded, or may be likely to yield, information important to prehistory or history (information potential).

These seven aspects of integrity are described as:

- **Location**: "Integrity of location" refers to whether a property remains where it was originally constructed or was relocated.

- **Design**: "Integrity of design" refers to whether a property has maintained its original configuration of the elements and style that characterize its plan, massing, and structure. Changes made after original construction can acquire significance in their own right.

- **Setting**: "Integrity of setting" refers to the physical environment surrounding a property that informs the characterization of the place.

- **Materials**: "Integrity of materials" refers to the physical components of a property, their arrangement or pattern, and their authentic expression of a particular period.

- **Workmanship**: "Integrity of workmanship" refers to whether the physical elements of a structure express the original craftsmanship, technology and aesthetic principles of a particular people, place or culture at a particular period.

- **Feeling**: "Integrity of feeling" refers to the property's ability to convey the historical sense of a particular period.

- **Association**: "Integrity of association" refers to the property's significance, defined by a connection to a particular important event, person, or design.

Listing in the NRHP does not entail specific protection or assistance for a property, but it does guarantee recognition in planning for federal or federally assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

STATE

California Register of Historical Resources

All properties listed in or formally determined eligible for listing in the NRHP are eligible for listing in the CRHR. The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program with a scope and with criteria for inclusion similar to those of the NRHP. In addition, properties designated under municipal or county ordinances are eligible for listing in the CRHR.

CHL buildings, structures, sites, or places that have been determined to have statewide historical significance are also automatically listed in the CRHR. California Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in CCR Title 15, Chapter 11.5, Section 4850 to be listed in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. is associated with the lives of persons important to local, California, or national history;

3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; and

4. has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity as the NRHP.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on historical resources, unique archaeological resources, and tribal cultural resources. Pursuant to PRC Section 21084.1, a "project 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." Pursuant to PRC Section 21084.2, a "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1), and the method to determine whether significant impacts on historical and archaeological resources would occur is described in the State CEQA Guidelines (Section 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources are defined as follows:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR, is considered a historical resource (PRC Section 5024.1).

2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript that 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 may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets any of the criteria for listing in the CRHR (PRC Section 5024.1):

    a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    b) is associated with the lives of persons important in our past;

    c) 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

    d) has yielded, or may be likely to yield, information important in prehistory or history.

4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k]), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

2. has a special and particular quality, such as being the oldest of its type or the best available example of its type; or

3. is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will affect tribal cultural resources. PRC Section 21074 describes tribal cultural resources as follows:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

      A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

   2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Health and Safety Code Sections 7050.5 and 7052

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC). Section 7052 states that the disturbance of Native American cemeteries is a felony.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that construction or excavation activity cease upon discovery of human remains and that the county coroner be notified. If the remains are those of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the deceased Native American. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Public Resources Code Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on public lands. The disposition of Native American burials falls within the jurisdiction of the NAHC. Section 5097.5 of the code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Public Resources Code Section 21080.3

AB 52, signed by the California governor in September 2014, established a new class of resources under CEQA: tribal cultural resources. See the "Tribal Cultural Resources" section above for the definition of the term. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration.

California Code of Regulations

CCR Title 3, Food and Agriculture, Division 8, Cannabis Cultivation, Chapter 1, Cannabis Cultivation Program, includes the following requirement:

- Section 8304(d): Immediately halt cultivation activities and implement section 7050.5 of the Health and Safety Code if human remains are discovered.

State Water Resources Control Board Order WQ 2019-0001-DWQ

Attachment A (General Requirements and Prohibitions) of the State Water Resources Control Board (SWRCB) Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Wastes Associated with Cannabis Cultivation Activities, includes the following requirements for state-licensed cultivation sites. The Order includes exemptions for certain cultivation activities, including cultivation activities that disturb less than 1,000 square feet (in aggregate) and present the lowest threat to water quality and also outdoor cannabis cultivation activities that disturb an area (in aggregate) less than 2,000 square feet on any one parcel or on contiguous parcels managed as a single operation and that comply with all of the cultivation area criteria listed in the Order. The following general requirements and prohibitions apply to any cannabis cultivator:

19. Prior to acting on a cannabis cultivator's request to cultivate cannabis on tribal lands or within 600 feet of tribal lands, the Water Boards will notify the governing body of any affected California Native American tribe or the governing body's authorized representative, as applicable. A 45-day review period will commence upon receipt of the notice by the affected tribe.

    During the 45-day review period, the affected tribe may, at its discretion, accept, reject, or not act regarding the cannabis cultivation proposal. If the tribe rejects the proposed cultivation, the cannabis cultivator is prohibited from cultivating cannabis on or within 600 feet of the affected tribe's tribal lands. If the affected tribe accepts the cannabis cultivation proposal or does not act during the 45-day review period, the Water Boards may proceed with a decision on the cannabis cultivation request as though the affected tribe accepted the cannabis cultivation proposal. The Water Boards will consider requests to extend the 45-day review period on a case by case basis.

    The governing bodies of California Native American tribes may, at their discretion, notify the State Water Board's Executive Director in writing that they: a) reject all proposed cannabis cultivation; or b) waive the 45-day review period for all current and future proposed cannabis cultivation on their tribal lands, on portions of their tribal lands, or within 600 feet of their tribal lands. Upon the Executive Director's receipt of written notice, the Water Boards will, based on the nature of the request, either:

a. Not approve cannabis cultivation proposals on or within 600 feet of the affected tribe's tribal lands, as applicable; or

b. Abide by the waiver and, at the Water Boards discretion, act on cannabis cultivation requests on or within 600 feet of tribal lands, as applicable, as though the affected tribe accepted the proposal.

The governing bodies of California Native American tribes may, at their discretion, withdraw a previously issued decision regarding cannabis cultivation on or within 600 feet of their tribal lands. In such instances, the governing body of the affected tribe should notify the State Water Board's Executive Director in writing. The Water Boards will abide by the withdrawal of the affected tribe's decision for any new cannabis cultivation proposals received after the date the State Water Board Executive Director has notified the governing body of the affected tribe that its decision was received. The Water Boards will coordinate with the affected tribe to address existing permitted cannabis cultivation sites on the affected tribe's lands, as necessary.

Nothing in this provision shall be construed to modify or interpret tribal law or tribal jurisdiction in any way.

20. No cannabis cultivation activities shall occur within 600 feet of an identified tribal cultural resource site. The State Water Board may modify this requirement for specific identified tribal cultural resource sites at the request of an affected California Native American tribe(s) after consultation with the affected tribe(s). The cannabis cultivator is solely responsible for identifying any tribal cultural resource sites8 within the cannabis cultivation area.

21. Prior to land disturbance activities for new or expanded cannabis cultivation activities, the cannabis cultivator shall either conduct or request a records search of potential Native American archeological or cultural resources at a California Historical Resources Information System (CHRIS) information center and document the results. Any person who meets qualification requirements for access to the CHRIS may conduct or request the initial CHRIS records search and document the results. The requirement to conduct or request a CHRIS records search may be satisfied by using the results of a previous CHRIS records search completed within the previous 10 years for the specific parcel or parcels where new or expanded cannabis cultivation activities are proposed to occur.

Prior to land disturbance activities for new or expanded cannabis cultivation activities, the cannabis cultivator shall also request a search of the Sacred Lands Inventory that is maintained by the Native American Heritage Commission pursuant to Public Resources Code sections 5097.94, subdivision (a), and 5097.96 (Sacred Lands Inventory). If the Sacred Lands Inventory search reveals the presence or potential presence of Native American places of special or social significance to Native Americans, Native American known graves or cemeteries, or Native American sacred places, the cannabis cultivator shall consult with the tribe or tribes that are culturally affiliated with the area in which these Native American cultural resources exist or potentially exist prior to conducting any land disturbance activities. The information provided by tribes through consultation with the cannabis cultivator shall be maintained as confidential by the cannabis cultivator and its agents. A new Sacred Lands Inventory search is always required prior to ground disturbing activities for new or expanded cannabis cultivation.

The cannabis cultivator shall notify the Appropriate Person within seven days of receiving a CHRIS positive result or Sacred Lands Inventory positive result. The Appropriate Person is the Deputy Director for Water Rights (Deputy Director) if the cannabis cultivator is operating under the Cannabis Small Irrigation Use Registration (SIUR), the Executive Officer of the applicable Regional Water Board (Executive Officer) if the cannabis cultivator is operating under the Cannabis Cultivation General Order or Cannabis General Water Quality Certification, or both if the cannabis cultivator is operating under both programs.

In the event that prehistoric archeological materials or indicators are identified in a CHRIS positive result, the cannabis cultivator shall also notify the Native American Heritage Commission within seven days of receiving the CHRIS positive result and request a list of any California Native American tribes that are potentially culturally affiliated with the positive result. The cannabis cultivator shall notify any potentially culturally affiliated California Native American tribes of the CHRIS positive result within 48 hours of receiving a list from the Native American Heritage Commission.

The cannabis cultivator shall promptly retain a Professional Archeologist9 to evaluate the CHRIS positive result and recommend appropriate conservation measures. In the event of a Sacred Lands Inventory positive result, the cannabis cultivator shall develop appropriate mitigation and conservation measures in consultation with the affected California Native American tribe, and shall promptly retain a Professional Archeologist to assist in this task in the event of a Sacred Lands Inventory positive result related to human remains or archeological resources. The cannabis cultivator shall submit proposed mitigation and conservation measures to the Appropriate Person(s) (Deputy Director for the Cannabis SIUR and Executive Officer for the Cannabis Cultivation General Order or Cannabis General Water Quality Certification) for written approval. The Appropriate Person may require all appropriate measures necessary to conserve archeological resources and tribal cultural resources, including but not limited to Native American monitoring, preservation in place, and archeological data recovery.

In the event that prehistoric archeological materials or indicators are identified in a CHRIS positive result, or in the event of a Sacred Lands Inventory positive result, the cannabis cultivator shall also provide a copy of the final proposed mitigation and conservation measures to any culturally affiliated California Native American tribes identified by the Native American Heritage Commission. The Appropriate Person will carefully consider any comments or mitigation measure recommendations submitted by culturally affiliated California Native American tribes with the goal of conserving tribal cultural resources and prehistoric archeological resources with appropriate dignity.

Ground-disturbing activities shall not commence until all approved measures have been completed to the satisfaction of the Deputy Director and/or Executive Officer, as applicable.

22. If any buried archeological materials or indicators10 are uncovered or discovered during any cannabis cultivation activities, all ground-disturbing activities shall immediately cease within 100 feet of the find.

    The cannabis cultivator shall notify the Appropriate Person within 48 hours of any discovery. The Appropriate Person is the Deputy Director if the cannabis cultivator is operating under the Cannabis SIUR, the Regional Water Board Executive Officer if the cannabis cultivator is operating under the Cannabis Cultivation General Order or Cannabis General Water Quality Certification, or both if the cannabis cultivator is operating under both programs.

    In the event that prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also notify the Native American Heritage Commission within 48 hours of any discovery and request a list of any California Native American tribes that are potentially culturally affiliated with the discovery. The cannabis cultivator shall notify any potentially culturally affiliated California Native American tribes of the discovery within 48 hours of receiving a list from the Native American Heritage Commission.

    The cannabis cultivator shall promptly retain a Professional Archeologist to evaluate the discovery. The cannabis cultivator shall submit proposed mitigation and conservation measures to the Appropriate Person(s) (Deputy Director for the Cannabis SIUR and Regional Water Board Executive Officer for the Cannabis Cultivation General Order or Cannabis General Water Quality Certification) for written approval. The Appropriate Person may require all appropriate measures necessary to conserve archeological resources and tribal cultural resources, including but not limited to Native American monitoring, preservation in place, and archeological data recovery.

In the event of a discovery of prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also provide a copy of the final proposed mitigation and conservation measures to any culturally affiliated California Native American tribes identified by the Native American Heritage Commission. The Appropriate Person will carefully consider any comments or mitigation measure recommendations submitted by culturally affiliated California Native American tribes with the goal of conserving prehistoric archeological resources and tribal cultural resources with appropriate dignity.

Ground-disturbing activities shall not resume within 100 feet of the discovery until all approved measures have been completed to the satisfaction of the Deputy Director and/or Executive Officer, as applicable.

23. Upon discovery of any human remains, cannabis cultivators shall immediately comply with Health and Safety Code section 7050.5 and, if applicable, Public Resources Code section 5097.98. The following actions shall be taken immediately upon the discovery of human remains:

    All ground-disturbing activities in the vicinity of the discovery shall stop immediately. The cannabis cultivator shall immediately notify the county coroner. Ground disturbing activities shall not resume until the requirements of Health and Safety Code section 7050.5 and, if applicable, Public Resources Code section 5097.98 have been met. The cannabis cultivator shall ensure that the human remains are treated with appropriate dignity.

    Per Health and Safety Code section 7050.5, the coroner has two working days to examine human remains after being notified by the person responsible for the excavation, or by their authorized representative. If the remains are Native American, the coroner has 24 hours to notify the Native American Heritage Commission.

    Per Public Resources Code section 5097.98, the Native American Heritage Commission will immediately notify the persons it believes to be the most likely descended from the deceased Native American. The most likely descendent has 48 hours to make recommendations to the landowner or representative for the treatment or disposition, with proper appropriate dignity, of the human remains and any associated grave goods. If the Native American Heritage Commission is unable to identify a descendant; the mediation provided for pursuant to subdivision (k) of Public Resources Code section 5097.94, if invoked, fails to provide measures acceptable to the landowner; or the most likely descendent does not make recommendations within 48 hours; and the most likely descendants and the landowner have not mutually agreed to extend discussions regarding treatment and disposition pursuant to subdivision (b)(2) of Public Resources Code section 5097.98, the landowner or their authorized representative shall reinter the human remains and items associated with the Native American human remains with appropriate dignity on the property in a location not subject to further and future disturbance consistent with subdivision (e) of Public Resources Code section 5097.98. If the landowner does not accept the descendant's recommendations, the landowner or the descendants may request mediation by the Native American Heritage Commission pursuant to Public Resources Code section 5097.94, subdivision (k).

LOCAL

Yolo County Code

Chapter 11, Historic Landmarks, of Title 8 of the Yolo County Code pertains to the treatment of local historic landmarks and historic districts. Overseen by the Historic Resources Commission, this section of the code provides for the identification, protection, enhancement, perpetuation, and use of cultural resources 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.

A building, structure, object, particular place, vegetation, or geology may be designated a County historic landmark if it meets one or more of the following criteria:

- it exemplifies or reflects valued elements of the County's cultural, agricultural, social, economic, political, aesthetic, military, religious, ethnic, natural vegetation, architectural, maritime, engineering, archaeological, or geological history;
- it is identified with persons or events important in local, state, or national history;
- it reflects significant geographical patterns, including those associated with different eras of settlement and growth and particular transportation modes;
- it embodies distinguishing characteristics or an architectural style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
- it is representative of the notable work of a builder, designer or architect; or
- it represents an important natural feature or design element that provides a visual point of reference to members of the community.

When an area includes at least two designated historic landmarks in such proximity that they create a setting historically or culturally significant to the local community, the state, or the nation and sufficiently distinguishable from other areas of the County, then a historic district may be established. Historic districts may include buildings, structures, and sites that individually do not meet criteria for landmark status but that collectively express their historical significance. With the exception of those types of projects specified in the design review guidelines or work authorized by the Building Official upon written approval of the Community Services Department for protection of public safety, projects that would demolish, move, remove, alter the exterior appearance of, or otherwise affect a designated historic landmark or any structure located in a designated historic district must first obtain written approval from the County Historic Preservation Commission.

Yolo County 2030 Countywide General Plan

The goals and policies of the Land Use and Community Character Element and the Conservation and Open Space Element of the General Plan seek to ensure a balanced management of the County's multiple natural and cultural resources. Policies specific to cultural resources and potentially relevant to the proposed CLUO and its implementation include:

- **Policy CC-1.5:** Significant site features, such as trees, water courses, rock outcroppings, historic structures and scenic views shall be used to guide site planning and design in new development. Where possible, these features shall become focal points of the development.
- **Policy CC-1.15:** The following features shall be protected and preserved along designated scenic roadways and routes, except where there are health and safety concerns:
    - Trees and other natural or unique vegetation
    - Landforms and natural or unique features
    - Views and vistas
    - Historic structures (where feasible), including buildings, bridges and signs
- **Policy CC-4.11**: Site specific information shall be required for each application, subject to site conditions and available technical information, as determined by the County lead department, in order to enable informed decision-making and ensure consistency with the General Plan and with the assumptions of the General Plan EIR. Technical information and surveys requested may include, but not be limited to, the following: air quality and/or greenhouse gas emissions calculations, agricultural resource assessment/agricultural and evaluation and site assessment (LESA), biological resources assessment,

cultural resources assessment, fiscal impact analysis, flood risk analysis, hydrology and water quality analysis, geotechnical/soils study, land use compatibility analysis, noise analysis, Phase One environmental site assessment, sewer capacity and service analysis, storm drainage capacity and service analysis, title report, traffic and circulation study, visual simulation and lighting study, and water supply assessment. When a technical study is required, it must cover the entire acreage upon which development is being proposed including any off-site improvements (e.g. wells; pumps; force mains; new roads; dirt borrow sites; etc.) that may be necessary. Technical studies must meet CEQA standards and the standards in the applicable industry. As necessary, the technical studies shall include recommendations that are to be implemented as part of the project.

- **Policy CO-4.1:** Identify and safeguard important cultural resources.
- **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-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.
    - **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.

- **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.

Capay Valley Area Plan

The following policies and implementation measures from the Capay Valley Area Plan address protection of cultural resources:

- **Policy 2:** Work with culturally affiliated tribes to identify and appropriately address cultural resources and tribal sacred sites through the development review process.

- **Policy 3:** Avoid or mitigate to the maximum feasible extent impacts of development on Native American archaeological and cultural resources.

  - **Implementation Measure 2:** The County shall refer proposals for projects that are not categorically exempted from the California Environmental Quality Act for evaluation and a recommendation as to whether further study is required to determine the presence or absence of archaeological resources. If the Northwest Information Center 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.

Dunnigan Community Plan

The following policies from the Dunnigan General Plan address cultural resources:

- **Policy D-CON.7:** If the development of a site uncovers cultural resources, the recommendations of Section 21083.2, Archaeological Impacts of the California Environmental Quality Act and Guidelines shall be followed for identification, documentation and preservation of the resource. The developer shall contact the Director of the Planning and Public Works Department immediately if uncovered cultural resources are found.

- **Policy D-CON.8:** Historically or architecturally significant buildings should not be demolished or substantially changed in outward appearance, unless doing so is necessary to remove a threat to health and safety and other means to avoid the threat are infeasible in accordance with the Yolo County Zoning Regulations and California Environmental Quality Act.

3.5.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis considers the known cultural resource environmental setting in the County described in Section 3.5.1, "Environmental Setting"; the potential for previously undocumented resources, including human remains; and physical effects (i.e., disturbance, material alteration, demolishment) to known and previously undocumented cultural resources that could result from adoption and implementation of the proposed CLUO including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO (the entire text of the CLUO is provided in Appendix B). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources. Evaluation of potential impacts on cultural resources is based on the assumed extent of cannabis uses under each alternative (see Table 2-4 and Appendix D) in comparison of the CLUO provisions with the General Plan, community plans, and County Code requirements. The analysis evaluates cultural resources impacts based on the assumed extent and locations of future cannabis uses under each of the five alternatives identified in Table 2-4 and Exhibits 2-4 through 2-8 provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives."

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address archaeological, historical, and tribal cultural resources that have been designated as important resources under state and local regulations (e.g., CRHR, PRC Section 21074 and 21083.2, and Title 8 of the Yolo County Code).

The project would result in a significant impact on cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource pursuant to State CEQA Guidelines Section 15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines Section 15064.5;
- disturb any human remains, including those interred outside of dedicated cemeteries; or
- cause a substantial adverse change in the significance of a tribal cultural resource, 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:
    - listed or eligible for listing in the CRHR, or in a local register of historic resources as defined in PRC Section 5020.1(k); or
    - a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c); in applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

IMPACT ANALYSIS

Impact CULT-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in damage to or destruction of an historic resource, building, place, or structure, thereby resulting in a substantial adverse change in the significance of an historical resource as defined in Section 15064.5. Implementation of Section 8-2.1408(H)(1) of the proposed CLUO would ensure protection of historic resources. Section 8-2.1408(H)(1) requires the identification and protection of historic resources. This would be a **less-than-significant** impact for all alternatives.

Yolo County contains a variety of historic resources, including federally recognized and state-recognized resources. Historic resources (see Table 3.5-1) within the County generally include property types ranging from civic and commercial buildings, such as the Yolo Branch Library, Union Church of Dunnigan, Rumsey Town Hall, and Nelson Ranch, to districts, including the Woodland and the Winters historical districts, to residential buildings in the County's many small towns. As of March 2018, 22 objects, structures, buildings, and sites in the County have been listed in the NRHP; one additional resource has been listed in the CRHR; two have been listed as California Landmarks; and eight have been listed as California Points of Historical Interest. These resources meet the definition of historic resource under Section 15064.5(a) of the State CEQA Guidelines. The demolition, alteration, or disturbance of existing features, buildings, and structures could result in changes to or destruction of historic resources. There may also be unevaluated standing buildings in the unincorporated area of the County that would meet the definition of an historic resource under Section 15064.5(a), especially considering that over time as structures age they become eligible for consideration

Section 8-2.1408(H)(1) of the CLUO includes the following requirements and performance standards for all cannabis uses (cultivation and noncultivation) that would apply to all five alternatives:

> In accordance with Policies CO-4.12 and CO-4.13, and Actions CO-A63 through CO-A66, of the Cultural Resources chapter of the Conservation and Open Space Element of the County General Plan, applicants shall submit a preliminary site survey to determine the potential for archeological, historical, or paleontological resources to be located on the project site. If the site has a low potential for this to occur, no further actions are necessary unless resources are encountered during construction or farming. If the site has a medium to high potential, a cultural resources inventory is required to be submitted as part of the application. If onsite resources are identified, a mitigation plan is required to protect identified resources in accordance with General Plan Actions CO-A63 and CO-A64 prior to issuance of permits. If cultural resources (archaeological, historic, paleontological) are encountered during construction, workers shall not alter the materials or their context until an appropriately trained cultural resource consultant has evaluated the find. Project personnel shall not collect cultural resources. 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 or walls, structures and remains with square nails, and refuse deposits often in old wells and privies.

Section 8-2.1408(OO) of the CLUO also requires that site design demonstrate protection of paleontological resources and Section 8-2.14010(C)(1) requires that permittees submit a Cultural Resources Assessment to evaluate the potential for historic resources on the site as required by Section 8-2.1408(H).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given minimal size of the cultivation area and its location within a developed parcel, no significant historic resource impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 but no expansion of cannabis cultivation uses would occur. Existing and relocated cultivation sites would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) that would require site assessments to determine potential historical resources in the area and site plans may be required to be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, and CO-4.1 and Actions CO-A63 and CO-A66 and with Dunnigan Community Plan Policy D-CON.8.

The impact on historical resources would be **less than significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses under Alternative 2 (see Table 2-4). Alternative 2 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards in the CLUO. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) that would require site assessments to determine potential historical resources in the area and site plans may be required to be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, and CO-4.1 and Actions CO-A63 and CO-A66 and with Dunnigan Community Plan Policy D-CON.8.

The impact on historical resources would be **less than significant** for Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes 186 new cannabis uses (cultivation and noncultivation) would be generally spread throughout the County though 40 new cannabis uses are assumed to be sited along the SR 16 corridor west of the City of Woodland (see Table 2-4). This alternative is also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning requirements under the CLUO. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) that would require site assessments to determine potential historical resources in the area and site plans may be required to be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, and CO-4.1 and Actions CO-A63 and CO-A66 and with Dunnigan Community Plan Policy D-CON.8.

The impact on historical resources would be **less than significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Exhibit 2-7 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses under Alternative 4 (see Table 2-4). Alternative 4 also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning standards. It is also assumed that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. Mixed-light and indoor cultivation buildings may include construction of new buildings or the use of existing buildings that may be considered historic. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) that would require site assessments to determine potential historical resources in the area and site plans may be required to be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, and CO-4.1 and Actions CO-A63 and CO-A66 and with Dunnigan Community Plan Policy D-CON.8.

The impact on historical resources would be **less than significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County that consists of 52 new cultivation and noncultivation uses under Alternative 5 (see Table 2-4). Alternative 5 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards of the CLUO. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) that would require site assessments to determine potential historical resources in the area and site plans may be required to be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, and CO-4.1 and Actions CO-A63 and CO-A66 and with Dunnigan Community Plan Policy D-CON.8.

The impact on historical resources would be **less than significant** for Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact CULT-2: Cause a Substantial Adverse Change in the Significance of an Archaeological Resource

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in future commercial cannabis operations that are located on properties that contain known or unknown archaeological resources, and ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Implementation of Attachment A of SWRCB Order WQ 2019-0001-DWQ and Section 8-2.1408(H)(1) of the proposed CLUO would ensure protection of archaeological resources. This would be a **less-than-significant** impact for all alternatives.

As described in Section 3.5.1, "Environmental Setting," there are 157 prehistoric-era archaeological sites composed primarily of temporary occupation sites, hunting/processing camps, habitation sites, milling stations, lithic scatters, and rock features. There are 118 recorded historic-era archaeological sites, which include homesteading, ranching and agriculture, mining, town, and urban sites. Additional sites may be encountered throughout unsurveyed portions of the County during ground-disturbing and trenching activities; the discovery of yet undiscovered archaeological materials could result in changes to or destruction of archaeological resources as defined in State CEQA Guidelines Section 15064.5.

As identified in Impact CULT-1, Section 8-2.1408(H)(1) of the CLUO includes the performance standards for all cannabis uses (cultivation and noncultivation) that would apply to all five alternatives that address archaeological resources. Specifically, this section requires that a site survey be conducted to determine the potential for archaeological resources and development of a mitigation plan to protect identified archaeological resources in accordance with General Plan Actions CO-A63 and CO-A64 before the issuance of permits. Mitigation may include redesigning the site to avoid the archaeological resource, capping the archaeological resource site to avoid impacts, or properly removing and curating the resource. This section also requires protection of archaeological resources discovered during construction. Section 8-2.1408(OO) of the CLUO also requires that site design demonstrate protection of paleontological resources and Section 8-2.14010(C)(1) requires that permittees submit a Cultural Resources Assessment to evaluate the potential for cultural resources on the site.

In addition to the CLUO, cannabis cultivation sites are required to comply with the SWRCB Attachment A (General Requirements and Prohibitions) of Order WQ 2019-0001-DWQ. Term 21 of the General Requirements and Prohibitions requires that records searches be performed through the applicable CHRIS information center before land-disturbing activities for cultivation operations. Any positive results identified in the records search would need to be further evaluated. Term 22 requires documentation and protection of any discovered archaeological resources during cultivation operations.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given minimal size of the cultivation area and its location within a developed parcel, no significant archaeological resource impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 but no expansion of cannabis cultivation uses would occur. Assumed relocation of cannabis cultivation sites could disturb 18 acres (see Table 2-5) that may contain undiscovered archaeological resources. Existing and relocated cultivation sites would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential archaeological resources in the area and site plans may be required to move or be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, CO-4.13, and CO-4.1 and Actions CO-A63 through CO-A66; Capay Valley Area Plan Policy 2; and Dunnigan Community Plan Policy D-CON.7.

The impact on archaeological resources would be **less than significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses (see Table 2-4). Alternative 2 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards in the CLUO. These assumed cannabis activities (relocations and new cannabis uses) could disturb 164 acres (see Table 2-5) that may contain undiscovered archaeological resources. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential archaeological resources in the area and site plans may be required to move or be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, CO-4.13, and CO-4.1 and Actions CO-A63 through CO-A66; Capay Valley Area Plan Policy 2; and Dunnigan Community Plan Policy D-CON.7.

The impact on archaeological resources would be **less than significant** for Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes 186 new cannabis uses (cultivation and noncultivation) would be generally spread throughout the County, though 40 new cannabis uses are assumed to be sited along the SR 16 corridor west of the City of Woodland (see Table 2-4). This alternative is also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning requirements under the CLUO. These assumed cannabis activities (relocations and new cannabis uses) could disturb 164 acres (see Table 2-5) could disturb 379 acres that may contain undiscovered archaeological resources. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential archaeological resources in the area and site plans may be required to move or be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, CO-4.13, and CO-4.1 and Actions CO-A63 through CO-A66; Capay Valley Area Plan Policy 2; and Dunnigan Community Plan Policy D-CON.7.

The impact on archaeological resources would be **less than significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Exhibit 2-7 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses under Alternative 4 (see Table 2-4). Alternative 4 is also assumed to result in the relocation of nine of the 78 existing and eligible outdoor cannabis cultivation sites due to compliance with zoning standards. It is also assumed that 75 of the existing and eligible outdoor cannabis

cultivation sites would convert entirely to indoor or mixed-light cultivation. These assumed cannabis activities (relocations and new cannabis uses) could disturb 122 acres that may contain undiscovered archaeological resources (see Table 2-5). Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential archaeological resources in the area and site plans may be required to move or be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, CO-4.13, and CO-4.1 and Actions CO-A63 through CO-A66; Capay Valley Area Plan Policy 2; and Dunnigan Community Plan Policy D-CON.7.

The impact on archaeological resources would be **less than significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County that consists of 52 new cultivation and noncultivation uses (see Table 2-4). Alternative 5 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards of the CLUO. These assumed cannabis activities (relocations and new cannabis uses) could disturb 164 acres (see Table 2-5) could disturb 163 acres that may contain undiscovered archaeological resources. Relocated cultivation sites and new cannabis uses would be subject to CLUO Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential archaeological resources in the area and site plans may be required to move or be redesigned to protect the historic resource consistent with General Plan Policies CC-1.15, CC-4.11, CO-4.13, and CO-4.1 and Actions CO-A63 through CO-A66; Capay Valley Area Plan Policy 2; and Dunnigan Community Plan Policy D-CON.7.

The impact on archaeological resources would be **less than significant** for Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact CULT-3: Disturb Any Human Remains, Including Those Interred Outside of Dedicated Cemeteries

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in the disturbance of previously undiscovered human remains during construction of cannabis sites. Implementation of Attachment A of SWRCB Order WQ 2019-0001-DWQ and Section 8-2.1408(H)(3) of the proposed CLUO would ensure proper handling of human remains. Section 8-2.1408(H)(3) details any human remains to be analyzed by the County Coroner prior to continuation of work. This would be a **less-than-significant** impact for all alternatives.

As described in Impact CULT-2, there are 157 prehistoric-era archaeological sites composed primarily of temporary occupation sites, hunting/processing camps, habitation sites, milling stations, lithic scatters, and rock features. There are 118 recorded historic-era archaeological sites, which include homesteading, ranching and agriculture, mining, town, and urban sites. In addition to these sites, human remains and graves may occur in the County. Grave sites and Native American remains can occur outside dedicated cemeteries or burial sites anywhere in the County. The proposed CLUO would allow grading, trenching, and the development of new buildings associated with cannabis cultivation and noncultivation uses. The potential exists for previously undiscovered human remains to be discovered when soils are disturbed.

Cannabis uses (cultivation and noncultivation) would be required to comply with Section 8-2.1408(H)(3) of the CLUO for all five alternatives, which states:

> If human remains are discovered, permittees shall comply with Section 7050.5 of the CHSC. Cultivation, grading/excavation, or other soil disturbance activities shall be immediately halted at the site and in the nearby area until the County Coroner has determined that the remains are not subject to the provisions of Section 27491 of the California Government Code (CGC) or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death,

> and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code (PRC). If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours and disposition shall be as specified by Commission and in accordance with applicable requirements of State law.

In addition to the CLUO, cannabis cultivation sites are required to comply with Term 23 of Attachment A (General Requirements and Prohibitions) of SWRCB Order WQ 2019-0001-DWQ. These requirements are based on the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097. These statutes require that If human remains are discovered during any construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Yolo County coroner shall be notified immediately, in accordance with PRC Section 5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given minimal size of the cultivation area and its location within a developed parcel, no human remain impacts are expected.

Implementation of above requirements would ensure that discovery of any human remains is adequately addressed consistent with state requirements. This impact would be **less than significant** for all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact CULT-4: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

Consultation pursuant to AB 52 is underway. Cannabis cultivators are required to comply with the requirements of the SWRCB. The proposed CLUO Cannabis Use Permit process includes separate requirements for cultural resources studies, and would apply to all cannabis conditional use permit applicants. Therefore, implementation of the proposed CLUO would not result in adverse effects on tribal cultural resources, and this impact would be **less than significant** for all alternatives.

All cannabis cultivation and noncultivation uses would be required to comply with CLUO Section 8-2.1408(H)(2):

> If tribal cultural resources are encountered all work in the area shall cease, resources shall be accorded culturally appropriate dignity, removal, reinternment, or other protection/disposition shall be as directed by the culturally affiliated tribe(s) pursuant to a Treatment Plan or Treatment Agreement (or other comparable arrangement).

CLUO Section 8-2.1408(H)(5) also requires that for any application for which a negative declaration, mitigated negative declaration, or EIR is prepared, tribal consultation must be conducted to address the potential for tribal cultural resources. AB 52 established a new class of resources under CEQA, tribal cultural resources, and requires that lead agencies undertaking CEQA review must, upon written request of a

California Native American tribe, begin consultation after the lead agency determines that the application for the project is complete. As identified above, the County requested consultation with tribes in compliance with AB 52. Section 8-2.1408(D) requires maintain a minimum 100-foot setback from waterways as set forth in Policy CO-2.22 of the General Plan as applicable.

The County sent notification for consultation under PRC 21080.3.1 to six tribes on March 7, 2018 and conducted consultation with the United Auburn Indian Community and the Yocha Dehe Wintun Nation.

The County received a letter from Gene Whitehouse, United Auburn Indian Community (UAIC), requesting formal consultation. County staff replied to the UAIC Cultural Resources Manager, Marcos Guerrero, to initiate the consultation process. However, Mr. Guerrero indicated UAIC did not have any comments at the time and requested to close consultation but continue to receive all correspondence on the CLUO process. The consultation process was completed, and no tribal cultural resources were identified.

The Yocha Dehe Wintun Nation also requested consultation, and in May 2018, the County extended an invitation for consultation on the CLUO and other matters related to the existing cannabis program. Of particular interest, at the time, was the parallel course for the early implementation development agreement applicants and, in particular, those applicants located in the Capay Valley. This consultation process is still underway.

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, comply with the SWRCB's cannabis cultivation policies for cultivation activities. Attachment A (General Requirements and Prohibitions) of Order WQ 2019-0001-DWQ. Term 19 of the SWRCB Order prohibit cultivation sites or within 600 feet of tribal lands, while Term 20 prohibits cannabis cultivation within 600 feet of a tribal cultural resource. Terms 21 and 22 of the SWRCB Order require CHRIS records searches, NAHC record searches, and archaeological surveys or evaluations (if necessary). Compliance with the above Terms of the SWRCB Order would reduce impacts on known archaeological resources that may include tribal cultural resources through requiring standard record searches, requiring archaeological evaluations of identified features, and implementing necessary measures to ensure the protection of archaeological resources and tribal cultural resources. In addition, consultation under AB 52 is underway. Sections 8-2.1408(D) and 8-2.1408(H) of the CLUO and Terms 19 through 22 of the SWRCB Order will ensure appropriate coordination and protection of unknown potential archeological and tribal cultural resources. Therefore, the project's impact on tribal cultural resources would be **less than significant** for all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

3.6 ENERGY

This section was prepared pursuant to Section 15126 and Appendix G of the State CEQA Guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in inefficient, wasteful, and unnecessary consumption of energy. The capacity of infrastructure to serve projects implemented under the CLUO is evaluated in Section 3.15, "Utilities and Service Systems."

No comment letters regarding energy were received in response to the NOP (see Appendix A).

3.6.1 Environmental Setting

ENERGY FACILITIES AND SERVICES IN THE COUNTY

Electric and natural gas services in Yolo County is provided by the Pacific Gas and Electric Company (PG&E). PG&E operates electricity and natural gas infrastructure in the County and throughout northern California, including power lines, power plants, pipelines, and substations. Private companies provide service for some of the unincorporated areas of the County not covered by PG&E. As of 2017, PG&E procured 33 percent of its electricity from renewable sources (CEC 2018a). Additionally, PG&E customers in unincorporated Yolo County can opt into Valley Clean Energy (VCE), a community choice aggregator that offers electricity at higher renewable rates than PG&E. VCE offers two levels of electricity service: Standard Green, which procures 42 percent of its electricity from renewables; and UltraGreen, which offers 100 percent renewable electricity (Valley Clean Energy n.d.).

ALTERNATIVE FUELS

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, California Air Resources Board Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- biodiesel,
- electricity,
- ethanol (E-10 and E-85),
- hydrogen,
- natural gas (methane in the form of compressed and liquefied natural gas),
- propane,
- renewable diesel (including biomass-to-liquid),
- synthetic fuels, and
- gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of the California Energy Commission (CEC), California Air Resources Board (CARB), local air districts, federal government, transit agencies, utilities, and other public and private entities. As of June 2018, Yolo County contained nearly 175 alternative fueling stations (AFDC 2018).

ENERGY USE FOR TRANSPORTATION

On-road vehicles use about 90 percent of the petroleum consumed in California. The California Department of Transportation projected 153 million gallons of gasoline and diesel were consumed in Yolo County in 2015, an increase of approximately 17 million gallons of fuel from 2010 levels (Caltrans 2008).

3.6.2 Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA's] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, 24 CCR sets forth energy standards for buildings. Further, the state provides rebates/tax credits for installation of renewable energy systems and to promote energy conservation through various incentive programs.

FEDERAL

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, the U.S. Department of Transportation is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

Energy Policy Act (1992 and 2005) and Energy Independence and Security Act of 2007

The Energy Policy Act of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. It includes several parts intended to build an inventory of alternative fuel vehicles in large, centrally fueled fleets in metropolitan areas. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean and renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It increased the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly fivefold increase over 2009 levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent. By addressing renewable fuels and CAFE standards, the Energy Independence and Security Act of 2007 built on progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to

the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

STATE

State of California Energy Action Plan

CEC, California Public Utilities Commission, and the Consumer Power and Conservation Financing Authority approved the Energy Action Plan in 2003, which was followed by the adoption of the Energy Action Plan Update (EAP II) in 2008. The EAP II identifies actions needed to meet California's future energy needs while continuing the commitment of cooperation among state agencies. The overarching goal of the EAP II is for California's energy to be reliable, affordable, technologically advanced, and environmentally-sound. The plan relies on specific action areas including energy efficiency; demand response; renewables; electricity adequacy, reliability, and infrastructure; electricity market structure; natural gas; transportation fuels; research and development; and climate change.

Reducing Dependence on Petroleum Report

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT) (CEC and CARB 2003). California is currently anticipated to meet and exceed these goals with up to a 55 percent reduction in petroleum use by 2030 (CARB n.d.). Further, in response to the CEC's 2003 and 2005 Integrated Energy Policy Reports (IEPRs), CEC was directed to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of the report is to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002) required CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (PRC Section 25301[a]). This work culminated in the IEPR.

CEC adopts an IEPR every 2 years and an update every other year. The 2017 IEPR, the most recent IEPR, was adopted March 16, 2018. The 2017 IEPR provides a summary of priority energy issues currently facing the state, outlining strategies and recommendations to further the state's goal of ensuring reliable, affordable, and environmentally-responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the state's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants.

Electricity Generation

The state has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018);

and 100 percent by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 3.8, "Greenhouse Gas Emissions and Climate Change."

Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

State Alternative Fuels Plan

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other state, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Greenhouse Gas Reduction Regulations

The state has passed legislation intended to result in reductions in GHG emissions. This legislation has an added benefit of reducing energy consumption. SB 32 of 2016 (Section 38566 of the Health and Safety Code) requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order B-30-15 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050.

SB 375 of 2008 (Sections 65080 through 65588, 14522.1, and 14522.2 of the Government Code and Chapter 4.2 and Sections 21061.3 and 21159.28 of the Public Resources Code) aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. The Advanced Clean Cars program, approved by CARB, combines the control of GHG emissions and criteria air pollutants and the increase in the number of zero-emission vehicles into a single package of standards. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Implementation of the state's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency of fossil fuel and making land use development and transportation systems more energy efficient.

More details about legislation associated with GHG reduction are provided in the "Regulatory Setting" section in Section 3.8, "Greenhouse Gas Emissions and Climate Change."

California Code of Regulations

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by the CEC on May 9, 2018 and will apply to projects constructed after January 1, 2020. The 2019 California Energy Code is designed to move the state closer to its zero-net energy goals for new residential development, as stated in its *New Residential Zero Net Action*

Plan 2015-2020 (CEC and CPUC 2015). It does so by requiring all new residences to install enough renewable energy to offset all the site electricity needs of each residential unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the combination of mandatory on-site renewable energy and prescriptively-required energy efficiency features will result in new residential construction that uses 53 percent less energy than the 2016 standards. Nonresidential buildings are anticipated to reduce energy consumption by 30 percent compared to the 2016 standards primarily through prescriptive requirements for high-efficacy lighting (CEC 2018b). The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards exceed those in the California Energy Code.

Regulations Pertaining to Cannabis

The following energy-related requirements are included in the CalCannabis regulation, CCR, Title 3, Division 8, Chapter 1 and pertain to cultivation sites.

- **Section 8203. Renewal of License. Section G.** Beginning January 1, 2022, an application for renewal of a license shall include the following record for each power source indicated on the application for licensure for the previous annual licensed period:

    1. Total electricity supplied by local utility provider, name of local utility provider, and greenhouse gas emission intensity per kilowatt hour reported by the utility provider under Section 398.4(c) of the Public Utilities Code for the most recent calendar year available at time of submission;

    2. Total electricity supplied by a zero net energy renewable source, as set forth in Section 398.4(h)(5) of the Public Utilities Code, that is not part of a net metering or other utility benefit;

    3. Total electricity supplied from other unspecific sources, as defined in 398.2(e) of the Public Utilities Code, and other on-site sources of generation not reported to the local utility provider (e.g., generators, fuel cells) and the greenhouse gas emission intensity;

    4. Average weighted greenhouse gas emission intensity considering all electricity use in Subsection (1), (2), and (3).

- **Section 8305: Renewable Energy Requirements.** Beginning January 1, 2023, all indoor, tier 2 mixed-light license types of all sizes, and nurseries using indoor or tier 2 mixed-light techniques, shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewables Portfolio Standard Program, division 1, part 1, chapter 2.3, article 16 (commencing with Section 399.11) of the Public Utilities Code. As evidence of meeting the standard, licensees shall comply with the following:

    (a) If a licensee's average weighted greenhouse gas emission intensity as provided in Section 8203(g)(4) is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall provide evidence of carbon offsets from any of the following sources to cover the excess in carbon emissions from the previous annual licensed period:

        (1) Voluntary greenhouse gas offset credits purchased from any of the following recognized and reputable voluntary carbon registries:

            (A) American Carbon Registry;

            (B) Climate Action Reserve;

            (C) Verified Carbon Standard.

(2) Offsets purchased from any other source are subject to verification and approval by the Department.

(b) New licensees, without a record of weighted greenhouse gas emissions intensity from the previous calendar year, shall report the average weighted greenhouse gas emissions intensity, as provided in Section 8203(g)(4), used during their licensed period at the time of license renewal. If a licensee's average weighted greenhouse gas emissions intensity is greater than the local utility provider's greenhouse gas emissions intensity for the most recent calendar year, the licensee shall provide evidence of carbon offsets or allowances to cover the excess in carbon emissions from any of the other sources provided in Subsection (a).

- Section 8306. Generator Requirements.

(a) For the purposes of this section, "generator" is defined as a stationary or portable compression ignition engine pursuant to Title 17, Division 3, Chapter 1, Subchapter 7.5, Section 93115.4 of the California Code of Regulations.

(b) Licensees using generators rated at 50 horsepower and greater shall demonstrate compliance with either, as applicable, the Airborne Toxic Control Measure for stationary engines pursuant to Title 17, Division 3, Chapter 1, Subchapter 7.5, Sections 9315 through 93115.15 of the California Code of Regulations, or the Airborne Toxic Control Measure for portable engines pursuant to Title 17, Division 3, Chapter 1, Subchapter 7.5, Sections 93116 through 93116.5 of the California Code of Regulations. Compliance shall be demonstrated by providing a copy of one of the following to the department upon request:

(1) For portable engines, a Portable Equipment Registration Certificate provided by the California Air Resources Board; or

(2) For portable or stationary engines, a Permit to Operate, or other proof of engine registration, obtained from the Local Air District with jurisdiction over the licensed premises.

(c) Licensees using generators rated below 50 horsepower shall comply with the following by 2023:

(1) Either (A) or (B):

(A) Meet the "emergency definition for portable engines in Title 17, Division 3, Chapter 1, Subchapter 7.5, Sections 93116.2(a)(12) of the California Code of Regulations, or the "emergency use" definition for stationary engines in Title 17, Division 3, Chapter 1, Subchapter 93115.4(a)(30); or

(B) Operation 80 hours or less in a calendar year; and

(2) Either (A) or (B):

(A) Meet Tier 3 with Level 3 diesel particulate requirements pursuant to Title 13, Division 3, Chapter 14, Sections 2700 through 2711 of the California Code of Regulations;

(B) Meet Tier 4, or current engines requirements if more stringent, pursuant to Title 40, Chapter 1, Subchapter U, Part 1039, Subpart B, Section 1039.101 of the Code of Federal Regulations.

(d) All generators shall be equipped with non-resettable hour-meters. If a generator does not come equipped with a non-resettable hour-meter shall be installed.

LOCAL

Yolo County

Yolo County 2030 Countywide General Plan

The Yolo County 2030 Countywide General Plan (General Plan) includes the following policies related to energy (Yolo County 2009):

- **Policy CC-4.1:** Reduce dependence upon fossil fuels, extracted underground metals, minerals and other non-renewable resources by:
    - Requiring projects to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.
    - Encouraging projects to use regenerative energy heating and cooling source alternatives to fossil fuels.
    - Encouraging projects to select building materials that require less energy-intensive production methods and long-distance transport, in compliance with Leadership in Energy and Environmental Design (LEED) or equivalent standards.
- **Policy CC-4.4:** Encourage all new construction to be zero net energy by combining building energy efficiency design features with on-site clean distributed generation so as to result in no net purchases from the electricity or gas grid.
- **Policy CC-4.5:** Encourage individual and community-based wind and solar energy systems (micro-grids).
- **Policy CC-4.6:** Encourage all new residences to exceed Title 24 energy standards by at least 15 percent, and encourage all new commercial buildings to exceed Title 24 by at least 20 percent.
- **Policy CC-4.7:** Require energy efficiency design for all buildings.
- **Policy CC-4.8:** Require measures to minimize "heat islands" by requiring light-colored and reflective roofing materials and paint; "green" roofs; light colored roads and parking lots; extensive numbers of shade trees in parking lots; and shade trees and/or overhangs on the south and west sides of new or renovated buildings.
- **Policy CC-4.12:** Require "green" design, construction and operation including
    A. Site planning sensitive to the natural environment.
    B. Efficiency in resource use (including energy, water, raw materials and land).
    C. Building reuse and adaptive reuse.
    D. Selection of materials and products based on their life-cycle environmental impacts.
    E. Use of materials and products with recycled content.
    F. Use of materials provided from within the region.
    G. Recycling of construction and demolition waste.

H. Reduction in the use of toxic and harmful substances in the manufacturing of materials and during construction.

I. Use of passive and active solar strategies and efficient heating and cooling technologies.

K. Reduction in water use for buildings and landscaping.

L. Light pollution reduction to protect "dark skies."

M. Improvements to interior and exterior environments leading to increased health, comfort and productivity.

N. Facility maintenance and operational practices that reduce or eliminate harmful effects on people and the natural environment during occupancy.

O. Water reuse systems.

P. Other systems to capture energy sources that would otherwise be wasted.

- **Policy CI-1.3:** Reduce the total vehicle miles traveled per household by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of "smart growth" and sustainable planning principles.

- **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 as applicable.

- **Policy CI-5.1:** Work with local and regional agencies to implement a regional bikeway and/or alternative energy vehicle system that connect the cities, larger unincorporated communities and scenic areas.

- **Policy CI-5.2:** Create a complete bikeway and sidewalk system within each community, including the completion of existing systems. Create walkways and bikeways that connect existing paths where feasible, and that connect to grocery stores, parks, and other community features.

- **Policy CI-5.5:** Integrate bicycle, pedestrian and transit facilities into new developments.

- **Policy CI-5.12:** Support development of facilities that link bicyclists and pedestrians with other modes of transportation.

- **Policy CO-7.1:** Encourage conservation of natural gas, oil and electricity, and management of peak loads in existing land uses.

- **Policy CO-7.2:** Support efforts to improve energy efficiency in existing irrigation systems.

- **Policy CO-7.3:** Require all projects to incorporate energy-conserving design, construction, and operation techniques and features into all aspects of the project including buildings, roofs, pavement, and landscaping.

- **Policy CO-7.4:** Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, where feasible.

- **Policy CO-7.5:** Require all new parking lots to significantly increase shading to relieve the potential for "heat islands."

- **Policy CO-7.6:** Encourage the use of building materials and methods that increase energy efficiency by a minimum of 15 percent beyond State Title 24 standards for residential buildings and 20 percent beyond State Title 24 standards for commercial buildings.

- **Policy CO-7.7:** Support farmers and landowners in their efforts to maximize the efficiency of agricultural end uses.

- **Policy CO-7.8:** Increase energy efficiency and alternative energy utilization in existing buildings where feasible.

- **Policy CO-7.9:** Require that new site and structure designs maximize energy efficiency.

- **Policy CO-7.11:** Strongly encourage LEED certification or equivalent for all public, private and existing buildings and strongly encourage LEED-Neighborhood Design certification or equivalent for other applicable projects, particularly within the Specific Plan areas.

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

Yolo County Climate Action Plan

Yolo County adopted its Climate Action Plan (CAP) on March 15, 2011. The Countywide GHG Emissions inventory for 2016 was updated in October of 2018 (Ascent 2018). The CAP commits the County to reducing GHG emissions to 1990 levels by 2020, 27 percent below 1990 levels by 2030, 53 percent below 1990 levels by 2040, and 80 percent below 1990 levels by 2050. The 2011 CAP satisfied the requirements of General Plan, Action CO-A117, which called for the County to create a GHG Emissions Reduction Plan and/or CAP. There are several GHG reduction measures in the CAP that are relevant to the project. The following measures apply to cannabis uses:

- **Measure A-1:** Reduce nitrogen fertilizer application rates.

- **Measure A-2:** Reduce fossil fuel consumption in field equipment.

- **Measure A-3:** Reduce energy use in agricultural irrigation pumping.

- **Measure A-6**: Sequester carbon in agricultural landscapes.

- **Supporting Measures for Agriculture:** Increase use of biofuels or low-carbon fuels in field equipment; reduce agricultural water use through alternative irrigation techniques.

- **Measure E-4:** Increase on-site renewable energy generation to reduce demand for grid energy.

- **Measure E-5:** Promote on-farm renewable energy facilities.

- **Supporting Measures for Solid Waste and Wastewater:** Reduce disposal of organic materials.

Additionally, the following measures apply to all cannabis uses:

- **Measure E-2:** Reduce energy consumption in existing non-residential units.

- **Measure E-3:** Reduce energy consumption in new non-residential units.

- **Measure E-4:** Increase on-site renewable energy generation to reduce demand for grid energy.

- **Measure E-6:** Reduce water consumption in existing buildings through increased plumbing fixture efficiency.

- **Measure E-7:** Promote weather-based irrigation systems and water efficient turf management.

- **Supporting Measures for Energy:** Energy efficient appliances, lighting, and equipment in existing buildings; require energy efficient appliances, equipment, and lighting in new construction; promote greywater and rainwater collection and non-potable water systems.

- **Supporting Measures for Solid Waste and Wastewater:** Reduce disposal of non-organic materials through increased recycling; increase natural stormwater retention through low impact development.

3.6.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis below considers baseline energy conditions as described in Section 3.6.1, "Environmental Setting," and evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts to energy. This program-level analysis is based upon current building standard requirements and emissions modeling tools available from the California Air Pollution Control Officers Association. The activity footprint and design of site-specific cannabis uses assumed under each of the five alternatives based on Table 2-4 and Exhibits 2-4 through 2-8 that are provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives" to provide an assessment and comparison of reasonably foreseeable outcomes from different regulatory scenarios.

Permitted commercial cannabis uses could result in an increase in energy consumption from short-term construction-related activities and their long-term operation. Construction activities that require energy consumption are assumed for each alternative to take place within the entire activity footprint of cannabis cultivation sites and noncultivation uses as described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives" (Table 2-4) and Appendix D. Details about extent of existing cultivation site relocations under each alternative from compliance with the CLUO is included in Appendix D. The levels of energy consumption associated with construction of new and relocated cultivation and noncultivation sites were estimated. These estimates are measured in gallons of gasoline and gallons of diesel fuel used for worker trips, haul truck trips, and off-road equipment. Energy consumption was estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program for the types of indoor, outdoor, mixed-light, and noncultivation uses that could be permitted under the proposed ordinance. Where detailed project-specific information is unknown, these estimates rely on default values in CalEEMod that are based on the climate in Yolo County. For details about construction assumptions used in the modeling, refer to Appendix D and E.

Operation of cannabis uses were assumed to be contained within the identified activity footprint for cannabis sites, which can be found in Appendix D. The levels of energy consumption associated with operation of both existing and new licensed cultivation and noncultivation sites were also estimated using CalEEMod. For new and relocated licensed cannabis sites, CalEEMod default energy consumption rates were adjusted to account for the energy efficiency requirements pursuant to the 2019 California Energy Code, which will result in a 30-percent reduction in energy consumption compared with the 2016 California Energy Code that is used by CalEEMod. The CLUO requires the procurement of at least 50 percent renewable energy for all sites permitted and this requirement was applied to energy consumption modeled in CalEEMod.

Other sources of operational energy consumption include off-road equipment. Off-road road equipment includes the use of a utility vehicle for outdoor and mixed-light cultivation sites, and a forklift for noncultivation sites. Back-up diesel generators were also assumed to be at mixed-light and indoor cultivation sites.

Specific requirements of existing laws and regulations described in the regulatory setting as well as the proposed CLUO (see Appendix C) were assessed for their ability to reduce energy consumption and increase renewable energy generation.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

The following significance criteria are based on State CEQA Guidelines Appendix G. The project would result in a significant impact on energy resources if it would:

- result in the wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

IMPACT ANALYSIS

Impact ENE-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy

Construction and operation of commercial cannabis sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in the consumption of fuel (gasoline and diesel), electricity, and natural gas. The energy needs for construction of new and relocated commercial cannabis cultivation and noncultivation sites would be temporary and would not require additional capacity or increase peak or base period demand for electricity or other forms of energy. The CLUO would require all cannabis sites to derive 50 percent of their energy from renewable sources, and CCR Sections 8203, 8205, and 8206 include energy efficiency requirements that are more stringent than standard requirements in the California Energy Code. Further, CCR Sections 8203 and 8205 require all cannabis cultivation sites seeking relicensing after 2022 to supply their total electricity from a zero net energy renewable source. Energy consumption associated with all of the alternatives under the CLUO would not result in wasteful, inefficient, or unnecessary consumption of energy. Thus, the impact would be **less than significant** for all alternatives.

CEQA requires an analysis of the potential for a project to result in "wasteful, inefficient, and unnecessary energy usage (PRC Section 21100[b][3]). Appendix G of the State CEQA Guidelines requires the consideration of the energy implications of a project. Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Project design features that include ways in which to increase energy efficiency and renewable energy consumption and decrease reliance on fossil fuel energy sources are assumed to comply with the State CEQA Guidelines.

All new buildings constructed at cannabis sites under the CLUO would be required to meet the California Energy Code in effect at the time of construction. While compliance with the California Energy Code would result in energy-efficient buildings, such compliance does not address all potential energy impacts during cannabis site construction and operation. For example, energy would be required to transport people and materials to and from each site.

Energy would be required to construct each new and relocated cultivation and noncultivation site, operate and maintain construction equipment, and produce and transport construction materials. The temporary energy expenditure required to construct physical buildings and infrastructure for new sites and relocated sites under the proposed CLUO would be nonrecoverable. Most energy consumption would result from the use of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials. Alternatives included in this analysis address the extent of construction required for the license types permitted.

Operation of cannabis sites would consume electricity and natural gas for lighting, space heating, and water heating. Diesel would be used for generators and on-site auxiliary equipment such as a utility vehicle. Indirect energy use would include wastewater treatment, water well pumping, and solid waste removal. Gasoline and diesel fuel would also be consumed by worker commute trips and haul trucks transporting materials and products.

As discussed under Section 3.6.2, "Regulatory Setting," above, the 2019 California Energy Code will reduce energy consumption by 30 percent when compared to the 2016 standards.

The CLUO includes the following requirements that address energy use for cannabis uses:

- Section 8-2.1408(F) Building Design: Design and construction of buildings and structures shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, environmental controls (including temperature, humidity, and ventilation), safety and security, lighting, aesthetics, energy use, and other appropriate impact mitigation. Design, materials, and general appearance must be compatible with the character and scale of what is allowed in the applicable zone.

- Section 8-2.1408(O) Energy Use: Permittees shall demonstrate availability of adequate energy, and compliance with applicable local and regional energy saving goals. Permittees shall demonstrate use of energy efficient best practices for each proposed use type. Onsite generation of energy from clean and/or renewable sources is encouraged. Permittees shall purchase or generate a minimum of 50 percent renewable power through the Valley Clean Energy Alliance or other available energy purveyor. CDFA licensees must satisfy the requirements of Section 8305, Renewable Energy Requirements, of the CDFA Regulations (effective January 1, 2023).

- Section 8-2.1408(T) Generators: Use of generators (of any fuel type) is allowed for CDFA[1] licensees. Use of generators for other use types is prohibited, except for temporary use in the event of a power outage or emergency. CDFA licensees must demonstrate compliance with the requirements of the Yolo-Solano Air Quality Management District, and Section 8306, Generator Requirements, of the CDFA Regulations.

- Section 8-2.1408(Z) Lighting: All exterior lighting shall be operational, full cut-off, shielded, and downward facing. Lighting shall not spill over onto other properties, structures, or the night sky. Lighting inside indoor and mixed light operations shall be fully controlled so that minimal or no light escapes. Lighting is prohibited in hoop houses. CDFA licensees must comply with Section 8304(c) of the CDFA Regulations. All lighting for indoor/enclosed spaces shall utilize LED bulbs, or equivalent or more efficient technology. Mixed light use types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare, pursuant to Section 8304(g) of the CDFA Regulations

These requirements are consistent with the General Plan policies related to the use of renewable energy sources and energy efficiency (policies CC-4.5, CC-4.7, CC-4.12, CO-7.2, CO-7.3, CO-7.8, and CO-7.9). Further, as described in Section 3.6.2, "Regulatory Setting," above, CCR Sections 8203 and 8305 set forth renewable energy requirements for new and relicensed cultivation sites. Under these requirements, all sites seeking license renewals must meet the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewables Portfolio Standard Program. Commercial cannabis sites built under the CLUO would use more renewable energy than other types of agricultural or manufacturing buildings because of the requirements of the proposed ordinance and the requirements of CCR Section 8306.

All indoor spaces used for cannabis uses would use light-emitting diode (LED) lighting or a more efficiency lighting technology pursuant to Section 8-2.1408(Z) of the CLUO. This requirement would apply to existing buildings as well as those constructed under the project.

[1] CDFA licenses cannabis cultivation and nursery uses.

Fuel consumption associated with on-site operational equipment was quantified based on the hours of usage for each type of equipment, horsepower, and the load factor. All fuel associated with on-site utility vehicles, forklifts, and back-up generators were assumed to be diesel. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD rules and CCR Section 8306.

Energy consumption associated with construction of individual cannabis use types is included in Table 3.6-1 below. Refer to Appendix D for construction assumptions for cannabis uses and Appendix E for detailed modeling input parameters and results.

Table 3.6-1 Construction Energy Consumption by Cannabis Use Type

Cannabis Use Type	Diesel (Gallons)	Gasoline (Gallons)
Cultivation		
Outdoor	5,578	724
Mixed Light	7,620	1,814
Indoor	5,716	686
Noncultivation		
Nursery	9,891	2,510
Processing	2,837	140
Manufacturing	2,640	107
Testing	2,733	74
Distribution	2,640	41
Retail	2,733	107
Microbusiness	2,720	74

Notes: Gasoline gallon estimate includes fuel consumption associated with worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2019

Energy consumption associated with operation of individual cannabis use types is included in Table 3.6-2 below. Refer to Appendix D for operation assumptions for cannabis uses and Appendix E for detailed modeling input parameters and results.

Table 3.6-2 Operational Energy Consumption by Cannabis Use Type

Cannabis Use Type	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation			
Outdoor	198	0	555
Mixed Light	905	0	644
Indoor	350	0	89
Noncultivation			
Nursery	1,124	0	833
Processing	30	28	833
Manufacturing	23	35	833
Testing	23	37	833

Table 3.6-2 Operational Energy Consumption by Cannabis Use Type

Cannabis Use Type	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Distribution	8	13	833
Retail	28	20	833
Microbusiness	13	20	833

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

The energy needs for cannabis site construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. All buildings constructed under the CLUO would be built to the California Energy Code in effect at the time of construction and compliance with the CCR requirements for energy efficiency. Section 8-2.1408(O) of the CLUO includes a renewable energy requirement of at least 50 percent for all cannabis sites. Also, the energy-related requirements in Sections 8203, 8205, and 8206 are more stringent than the standard requirements in the California Energy Code for cultivation sites. Additionally, all indoor lighting would be required to be energy-efficient pursuant to Section 8-2.1408(Z) of the CLUO.

According to the State CEQA Guidelines Section 15126.2, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on oil, and increasing reliance on renewable energy sources. Through implementation of the CLUO, all cannabis sites would procure at least 50 percent of its electricity needs from renewable sources.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal cultivation would be an ancillary use to the residential parcel, no significant energy impacts are expected.

For these reasons, energy consumption associated with construction and operation of cannabis cultivation and noncultivation sites that would be permitted under any of the CLUO alternatives would not be considered wasteful, inefficient, or unnecessary. This impact would be **less than significant** for all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact ENE-2: Conflict with Plans for Renewable Energy and Energy Efficiency

Renewable energy generation requirements pursuant to the adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in an increase in renewable vs non-renewable energy use relative to existing agricultural uses, which would directly support the goals and strategies in the state's 2008 Energy Action Plan Update (EAP), General Plan, and Yolo County CAP. Operation of buildings for cannabis use purposes in compliance with the 2019 California Energy Code would improve energy efficiency compared to buildings built to earlier iterations of the code. The CLUO would require all cannabis sites to procure at least 50 percent of their energy demand from renewable sources, as well as install energy efficient indoor lighting. Therefore, operation of cannabis facilities under the proposed CLUO would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant** for all of the alternatives.

Relevant plans that pertain to the efficient use of energy include the EAP, which focuses on energy efficiency; demand response; renewable energy supply; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets (CEC and CPUC 2008). The General Plan (policies CC-4.5, CC-4.7, CC-4.12, CO-7.2, CO-7.3, CO-7.8, and CO-7.9) and Yolo County CAP (measures 2, 3, and 4) also includes provisions to reduce grid energy demand and increase the use of on-site renewables, as well as reduce energy consumption associated with agricultural irrigation pumping.

As discussed in Impact ENE-1, although implementation of the CLUO under the five alternatives has the potential to result in the consumption of energy resources during construction and operation of cannabis sites, it would not result in a wasteful, inefficient, or unnecessary consumption of energy. The CLUO requires renewable energy procurements at all cannabis sites (Section 8-2.1408[O]), CCR Sections 8203 and 8305 ensure relicensed and new sites use additional renewable energy, all new buildings constructed under the CLUO would be required to demonstrate compliance with the 2019 California Energy Code, and all indoor lighting would be energy efficient (Section 8-2.1408[F] [Building Design] and 8-2.1408[Z] [Lighting]. All of these requirements would align with the EAP and the Yolo County CAP and would all apply to all five alternatives. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant** under all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

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3.7 GEOLOGY AND SOILS

This section evaluates the potential impacts related to geology, seismicity, mineral resources, and paleontological resources resulting from adoption and implementation of the proposed CLUO, including issuance of Cannabis Use Permits pursuant to the adopted CLUO. In addition to regional geologic and seismic hazards, the potential effects related to local hazards, such as risks related to underlying geologic materials and soils, are also evaluated. The effects of erosion on water quality are addressed in Section 3.10, "Hydrology and Water Quality."

The California Department of Food and Agriculture (CDFA) provided comments on the notice of preparation (NOP). These comments requested that the EIR evaluate the impacts of licensed commercial cannabis cultivation on geology and soils, as well as on the availability of known mineral resources of value locally, regionally, and to the state. These issues are addressed in this section. No comments on the NOP were received regarding paleontological resources. The reader is referred to Appendix A for NOP comment letters.

3.7.1 Environmental Setting

The following key sources of data and information were used in the preparation of this section:

- Maps and reports published by the California Geological Survey (CGS) and U.S. Department of Agriculture – Natural Resources Conservation Service,
- Report of Findings Land Subsidence from Groundwater Use in California (Water Resources Association of Yolo County 2018),
- Cache Creek Area Plan (1996) and Cache Creek Area Plan Update Project Draft EIR (2019),
- Yolo Habitat Conservation Plan/Natural Communities Conservation Plan EIS/EIR (Yolo Habitat Conservancy 2017),
- Yolo County 2030 Countywide General Plan (Yolo County 2009a),
- Yolo County 2030 Countywide General Plan EIR (Yolo County 2009b), and
- Background Report for the Yolo County General Plan Update (Yolo County 2005).

REGIONAL GEOLOGY

Exhibit 3.7-1 shows the geologic formations within the County. The County spans two geomorphic provinces. Roughly 70 percent of the County is in the Great Valley geomorphic province that covers the central portion of the state. The western portion of the County includes the Coast Ranges geomorphic province, which is associated with mountains formed along the San Andreas Fault (CGS 2002).

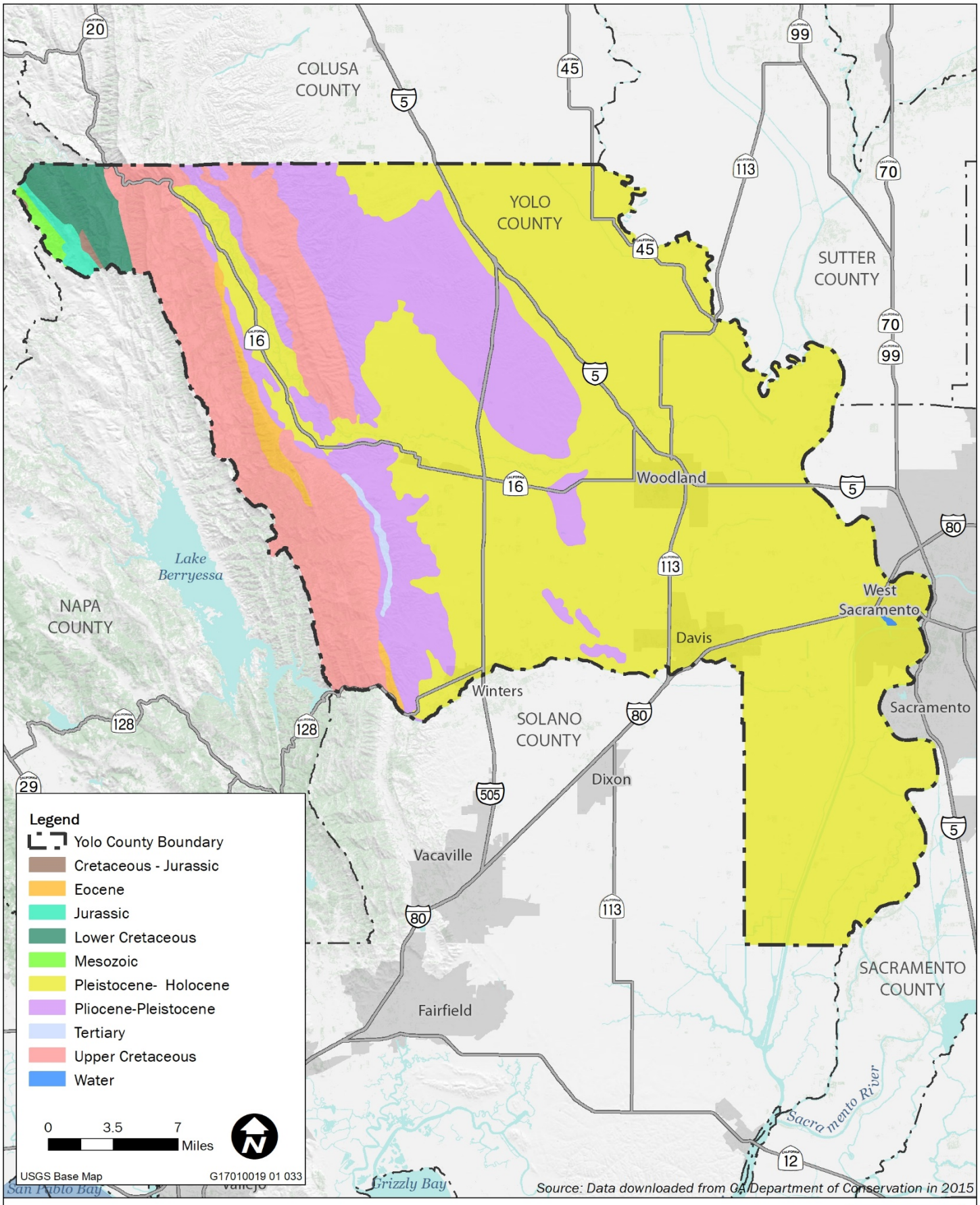


Exhibit 3.7-1 **Yolo County Geologic Conditions**

The Great Valley geomorphic province, also called the Central Valley, is a nearly flat alluvial plain that extends from the Tehachapi Mountains in the south to the Klamath Mountains in the north, and from the Sierra Nevada in the east to the Coast Ranges in the west. The valley is approximately 450 miles long, with an average width of about 50 miles. Elevations of the alluvial plain are generally just a few hundred feet above mean sea level (MSL), with extremes ranging from a few feet below MSL to about 1,000 feet above MSL (Hackel 1966).

Geologically, the Great Valley geomorphic province is a large, elongated, northwest-trending asymmetric structural trough that has been filled with an extremely thick sequence of sediments ranging in age from Jurassic to Holocene. This asymmetric geosyncline has a stable eastern shelf supported by the subsurface continuation of the granitic Sierran slope and a short western flank expressed by the upturned edges of the basin sediments (Hackel 1966). Within the Great Valley geomorphic province, the unincorporated areas of the County are dominated by gently sloping to level alluvial areas. Geologic units in this part of the County generally consist of Quaternary-age alluvium and basin deposits, and the Quaternary Modesto and Riverbank Formations. Rolling terraces of the Tehama Formation (non-marine sandstone, siltstone, and volcaniclastic rocks) project into the valley area northwest of Woodland and form the Dunnigan Hills (Wagner et al. 1981).

The Coast Ranges geomorphic province includes many separate ranges; coalescing mountain masses; and several major structural valleys of sedimentary, igneous, and metamorphic origin. The northern Coast Range extends from the California/Oregon border south to the San Francisco Bay area, and the southern Coast Range extends from the San Francisco Bay area south to the northern edge of the Transverse Ranges geomorphic province. Both the northern and southern Coast Ranges generally extend to 50 to 75 miles inland from the coastline and parallel the Great Valley geomorphic province throughout their length, except for extreme northern California where the northern Coast Range is adjacent to the Klamath Mountains geomorphic province.

The Coast Ranges geomorphic province is characterized by the presence of two entirely different core complexes, one being a Jurassic-Cretaceous eugeosynclinal assemblage (the Franciscan rocks) and the other consisting of early Cretaceous granitic intrusives and older metamorphic rocks. The two unrelated, incompatible core complexes lie side by side, separated from each other by faults. A large sequence of Cretaceous and Cenozoic clastic deposits covers large parts of the province. The rocks in the province are characterized by many folds, thrust faults, reverse faults, and strike-slip faults that have developed as a consequence of Cenozoic deformation.

Within the Coast Ranges geomorphic province, unincorporated areas of the County consist of moderately sloping to very steep uplands and terraces and is characterized by parallel ridges and valleys that trend slightly west of north (U.S. Soil Conservation Service 1972). The rocks in the Coast Ranges part of the County consist of a number of Quaternary and Cretaceous geologic formations, including upturned marine sandstones, shales, mudstones, and conglomerates, with some volcaniclastic rocks (Wagner and Bortugno 1982). A small area of ultramafic rocks, one of which may be serpentinite, occurs along Little Blue Ridge, west of Rumsey (USGS and CGS 2011). Elevations in the Coast Ranges reach more than 3,000 feet above MSL.

SEISMICITY

Seismic hazards include earthquake fault ground rupture and ground shaking (primary hazards), and liquefaction and earthquake-induced slope failure (secondary hazards). Localized ground shaking and liquefaction are the most significant seismic hazards in the County (Yolo County 2005).

Surface Rupture and Faulting

The only fault in the County that is potentially subject to surface rupture is the Hunting Creek Fault (sometimes referred to as the Hunting Creek-Berryessa Fault) (Yolo County 2005). There is evidence of activity on this fault during the Holocene epoch (approximately the last 11,000 years), and the fault is associated with a Special Studies Zone. (Special Studies Zones are delineated by the State of California,

pursuant to the Alquist-Priolo Earthquake Fault Zoning Act, around potentially active faults. See Section 3.7.2, "Regulatory Setting," below, for additional information.) The Hunting Creek Fault is a right-lateral fault and has an average slip rate of 6 millimeters per year. Its maximum expected Richter magnitude is 7.1 (CGS 2003: Appendix A). The fault is located in a sparsely inhabited part of the extreme northwestern corner of the County (Exhibit 3.7-2). Only a very short section of the fault occurs in the County; most of the trace extends through Lake and Napa Counties.

In addition to the Hunting Creek Fault, the Dunnigan Hills Fault, which extends between the town of Dunnigan and northwest of the town of Yolo west of Interstate 5, is potentially active (Yolo County 2005:3-5). There is evidence of displacement along the fault during the Holocene epoch (Jennings 1994); however, the Dunnigan Hills Fault is not within an Alquist-Priolo Earthquake Fault Zone (Hart and Bryant 1997), and surface fault rupture is considered unlikely.

There are also a number of pre-Quaternary faults (e.g., Capay, Sweitzer, and West Valley faults) in the western part of the County that show displacement more than 1.6 million years ago. These faults are considered inactive.

Ground Shaking Hazard

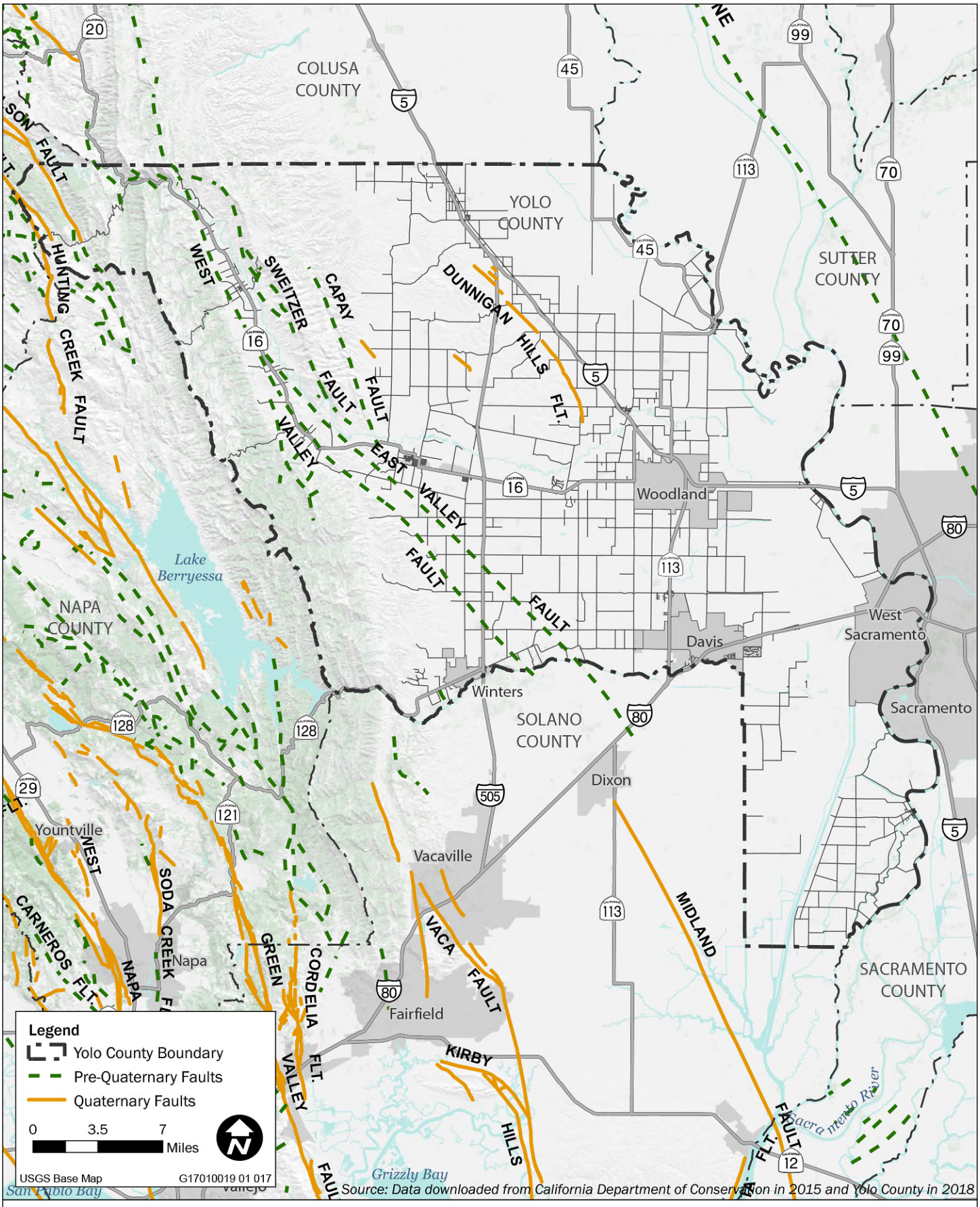
Earthquake energy, and therefore the potential for ground shaking, is most intense at the fault epicenter; with the potential for, and intensity of, ground shaking typically decreasing with distance from the epicenter. Estimates of the peak ground acceleration are based on probabilistic models that account for multiple seismic sources. Under these models, consideration of the probability of expected seismic events is incorporated into the determination of the level of ground shaking at a particular location. Yolo County is mapped by CGS as a region that is generally distant from known, active faults. As a result, the County is expected to experience lower levels of shaking less frequently. Earthquake hazard in the western portion of the County is moderate and lower in the alluvium in the eastern portion of the County (CGS 2016).

In addition to the Hunting Creek and Dunnigan Hills faults discussed above, major regional faults outside the County in the Coast Ranges and in the Sierra Nevada foothills are capable of producing strong ground shaking in the County. The Coast Range-Sierran Block Boundary, at the edge of the western side of the lower Sacramento Valley, is currently recognized as a potential seismic source capable of generating moderate earthquakes that could affect the ground-shaking hazard within the County (Yolo County 2009b).

Liquefaction and Related Hazards

Liquefaction is a phenomenon in which the strength and stiffness of unconsolidated sediments are reduced by earthquake shaking or other rapid loading. Poorly consolidated, water-saturated fine sands and silts located within 50 feet of the surface typically are considered to be the most susceptible to liquefaction. Soils and sediments that are not water-saturated and that consist of coarser or finer materials are generally less susceptible to liquefaction (CGS 2008). The part of the County in the Coastal Ranges geomorphic province would generally be expected to have a low liquefaction hazard, except in the intermountain valleys underlain by alluvium and shallow groundwater. Liquefaction is expected to be a relatively greater hazard in the Great Valley portion of the County, particularly along the floodplains of streams where the sediments are generally sandier than other areas.

Two potential ground failure types associated with liquefaction are lateral spreading and differential settlement. Lateral spreading involves a layer of ground at the surface being carried on an underlying layer of liquefied material over a nearly level surface toward a river channel or other open face. Areas most prone to lateral spreading are those that consist of fill material that has been improperly engineered, that have steep, unstable banks, and that have high groundwater tables. The banks along the Deep Water Ship Channel and Turning Basin in West Sacramento may have such conditions. Damage caused by liquefaction and lateral spreading is generally most severe when liquefaction occurs within 15–20 feet of the ground surface (Yolo County 2005).



Source: Data downloaded from California Department of Conservation in 2015 and Yolo County in 2018

Exhibit 3.7-2 **Fault Locations in the Region**

Differential settlement can occur as soil compacts and consolidates to varying degrees after ground shaking ceases. Differential settlement results when the layers that liquefy are not of uniform thickness, a common problem when the liquefaction occurs in artificial fills. Settlement can range from 1 percent to 5 percent, depending on the cohesiveness of the sediments (Tokimatsu and Seed 1984). Although differential settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause significant building damage over time. Portions of the County that contain loose or uncontrolled (non-engineered) fill may be susceptible to differential settlement.

SOIL AND SLOPE HAZARDS

Land Subsidence

Land subsidence (lowering of the land-surface elevation) occurs in three ways: as a result of compaction and oxidation of peat soils; hydrocompaction (i.e., a soil is saturated, then when the moisture is removed the soil particles consolidate more tightly than before saturation); and groundwater overdraft, which is the main mechanism for subsidence in the County. The primary hazards associated with subsidence are increased pressure on levees and damage to underground utilities. Other effects of subsidence include changes in the gradients of stormwater and sanitary sewer drainage systems in which the flow is gravity-driven. Specific to the County, land subsidence has damaged or reduced the integrity of highways, levees, irrigation canals, and wells (Yolo County 2009b).

Subsidence due to groundwater pumping has been detected in the northern Yolo-Zamora area of Yolo County between Zamora and Knights Landing, where subsidence is reported to be on the order of 5 feet, and the vicinity of the cities of Davis and Woodland, where subsidence is estimated at 2 or 3 feet (Water Resources Association of Yolo County 2018).

Landslides

Landslides are commonly triggered by unusually high rainfall and the resulting soil saturation, by earthquakes, or a combination of these conditions. The general term “landslide” may include a wide range of slope failures, including but not limited to rock falls, deep failure of slopes, earthflows, and shallow debris flows. Some landslides occur as a result of human activities, such as timber harvest, undermining a slope, and improper drainage water management.

Steep slopes underlain by Cretaceous rocks along Cache Creek are susceptible to landslides, and numerous large and small landslides have been mapped in this area (Manson 1990). Areas in the northwestern portion of the County have high landslide susceptibility (CGS 2011). However, except for the communities of Guinda, Capay, Rumsey, and Brooks, landslides are generally not a significant hazard to life or property in the County, due in large part to the relatively flat topography in much of the County (Yolo County 2009b:Figure IV.L-6).

Soil Types

Overlying the geologic units described above is a layer of soil. Soil types are important in describing engineering constraints such as erosion and runoff potential, corrosion risks, and various behaviors that affect structures, such as expansion and settlement (the nature of these constraints are described further below). Exhibit 3.7-3 depicts soil associations in Yolo County that have formed through landscape-level physical and chemical processes. Table 3.7-1 summarizes the soil associations’ characteristics. The soil associations in the County can be grouped into an uplands group, a lowland alluvial fan group, and a lowland Colusa/Yolo Basin group.

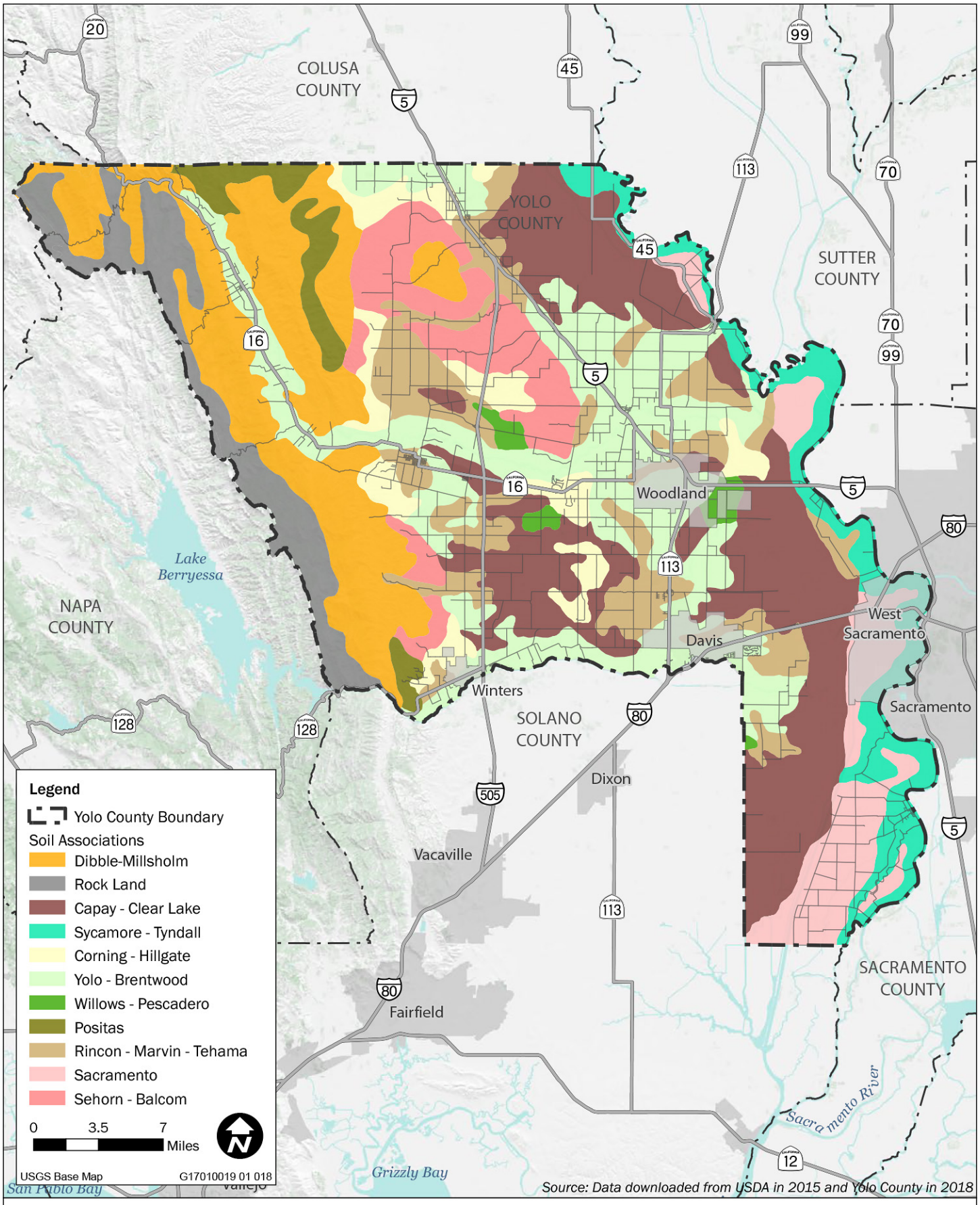


Exhibit 3.7-3

County Soil Associations

Table 3.7-1 Soil Associations for Yolo County

Soil Association Name	Water Erosion Hazard	Expansive Soil Potential (shrink-swell)	Corrosivity (uncoated steel)	Soil Limitations for Septic Tank Filter Field
Yolo- Brentwood	None to slight	Yolo: Moderate Brentwood: High	Yolo: Low to Moderate Brentwood: High	Yolo: Moderate to Severe Brentwood: Severe
Rincon-Marvin- Tehema	None to slight	Rincon: Mod/High Marvin: Mod/High Tehema: Moderate	Rincon: Mod/High Marvin: High Tehema: Low/Moderate	Severe
Capay-Clear Lake	None to slight	High for most subtypes	High	Severe
Sycamore- Tyndall	None to slight	Moderate to High	Sycamore: High Tyndall: Low/Moderate	Severe for most subtypes
Sacramento	None to slight	Moderate to High	High	Severe
Willows- Pescadero	None to slight	Moderate to High	High	Severe
Capay- Sacramento	None to slight	High for most subtypes	High	Severe
Corning- Hillgate	None to slight	Low to High	Low to High	Severe
Sehorn-Balcom	Moderate to very high	Sehorn: High Balcom: Moderate	Sehorn: High Balcom: Moderate	Severe
Dibble- Millsolm	Moderate to very high	Dibble: High Millsolm: Moderate	Dibble: High Millsolm: Moderate	Severe
Positas	Moderate to very high	Low to High	Low to High	Severe
Rock Land	Very high	—	—	—

Source: USDA 2016

Uplands Soil Group

The uplands soils group consists of five soils associations: Rock Land, Dibble-Millsholm, Positas, Sehorn-Balcorn, and Corning-Hillgate. The Rock Land association is located on sandstone of Franciscan complex and Great Valley sequence materials along the highest ridges of Little Blue Ridge and Blue Ridge. Typically, 50 to 90 percent of the land surface of Rock Land is exposed sandstone, shale, or serpentinized bedrock; the remainder is covered by a thin layer of sandy loam. Immediately below the Rock Land association on Blue Ridge and along the flanks of the Capay Hills is the Dibble-Millsholm association, which formed from Great Valley sequence materials. Exposed bedrock covers less than 10 percent of the surface of the Dibble-Millsholm association, which consequently has more soil development. Although it lacks similar parent material, an outlier of this association has been mapped on the highest areas of the northern Dunnigan Hills.

The patchy Positas association formed on terraces over the Red Bluff Formation in the southern end of the Blue Ridge and along the western and northern slopes of the Capay Hills. Its soils are gravelly loams. The Sehorn-Balcom association formed over the Tehama Formation, along the eastern toes of the Blue Ridge and Capay Hills, and along most of the Dunnigan Hills. The soils of this association consist of silty clays and clays. Adjacent terraces of the Red Bluff and Tehama Formations support the Corning-Hillgate association, which also extends along the Plainfield Ridge. The soils of this association are gravelly loams or loams. One outlier of this association has been mapped across the entire Cache Creek Settling Basin. Among the upland soils used for livestock grazing, soils in the Sehorn-Balcom and Dibble-Millsolm associations generally produce the greatest amounts of forage.

Lowlands Alluvial Fan Group

The lowland alluvial fan group consists of four soils associations: Yolo-Brentwood, Capay-Clear Lake, Rincon-Marvin-Tehama, and Willows-Pescadero. The Yolo-Brentwood association is most closely associated with alluvial floodplains and fans of Cache and Putah Creeks. In the Cache/Putah Basin, it forms the highest proportions of the basin rim at the mouths of the streams from the Blue Ridge and along the natural levee of

Putah Creek. Its soils are deep and well drained, and their textures range from silty loams to silty clay loams. Soils in the Yolo-Brentwood association are suited to a wide range of crops and are among the best arable soils in the County.

The soils of the Capay-Clear Lake association line the bottoms of portions of the Cache/Putah Basin and other lowland areas. These soils are generally poorly drained silty clays to clays. Their historic vegetation was primarily prairie/grassland, with some localized seasonal freshwater marsh. The Rincon-Marvin-Tehama association is found on the rim of the Cache/Putah Basin between the Yolo-Brentwood association and the Capay-Clear Lake association. On the eastern side of the Cache/Putah basin there is a patch of the Willows-Pescadero association that formed where groundwater was forced to the surface by the Dunnigan Hills/Plainfield anticline. The soils of this association are saline-alkaline silty clay loams to clays. These soil associations are also found east of the Dunnigan Hills/Plainfield Ridge anticline where salts that were transported eastward across the Putah/Cache alluvial fans accumulated at the basin rim interface between the alluvial fans and the Yolo and Colusa Basins.

Lowland Colusa/Yolo Basin and Sacramento River Natural Levee Group

The lowland Colusa/Yolo Basin and Sacramento River natural levee group consists of three soil associations: Sycamore-Tyndall, Sacramento, and Capay-Sacramento. The Sycamore-Tyndall association is found on the natural levees of the Sacramento River. Its soils are somewhat poorly drained very fine sandy loams to clay loams. Below the Sycamore-Tyndall association, in the rice lands of the Colusa Basin, is the Sacramento association. Its soils are poorly drained silty clay loams and clays. Finally, the Yolo Bypass and parts of the Colusa Basin contain the Capay-Sacramento association, with its moderately well-drained to poorly drained silty clay loams to clays.

Erosion Potential and Hazard Rating

Natural rates of erosion vary depending on slope, soil type, and vegetative cover. Typically, soils with high amounts of silt are more easily eroded, while coarse-grained (sand and gravel) soils are less susceptible to erosion. Soil erosion can become problematic when human intervention causes rapid soil loss and the development of erosional features (such as incised channels, rills, and gullies) that undermine roads, buildings, or utilities. This is typically associated with vegetation clearing and earth moving, which reduces soil structure and cohesion. Many of the soils in the steeper, upland areas in the western part of the County have been subject to accelerated erosion, such that they have lost part, or all, of their original topsoil layer. This may be a result of past overuse of forage by grazing animals (Yolo County 2005).

The suitability of the soils for particular agricultural uses and their farmland classification (e.g., Prime Farmland) are described in more detail in Section 3.2, “Agricultural Resources.”

Expansive Soil Potential/Shrink-Swell Potential

Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert significant pressure on loads that are placed on them, such as building and structure foundations or underground utilities, and can result in structural distress and/or damage. Often, grading, site preparations, and backfill operations associated with subsurface structures can eliminate the potential for expansion. The soils of the County generally have moderate to high shrink-swell potential and are classified as expansive soils (see Table 3.7-1).

Corrosivity

The corrosive potential of soil is a result of a combination of soil characteristics and environmental influences. Factors affecting corrosion potential include the amount of water in the soil, the conductivity of the soil solution, the pH of the soil solution, the oxygen concentration (aeration), and the activity of organisms capable of causing oxidation/reduction reactions. The estimation of corrosivity for untreated steel pipe is a common metric for describing corrosive potential and is commonly based on resistance to flow of electrical current, total acidity, soil drainage, soil texture, and conductivity of the saturation extract of the soil. The potential for soil conditions to result in deterioration of concrete is also considered and is

influenced by the amount of sulphates in the soil combined with soil texture and acidity. Soils in the County range from low to high corrosivity potential for uncoated steel.

Liquefaction Potential

The causes and effects of liquefaction, and the potential for liquefaction in the County are described above in the discussion of seismicity.

PALEONTOLOGICAL RESOURCES

Significant vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood a rock unit will yield a unique or significant paleontological resource. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield significant paleontological resources. Depending on location, the paleontological potential of subsurface materials generally increases with depth beneath the surface, as well as with proximity to known fossiliferous deposits.

The County's diverse geology spans 145 million years, from the Cretaceous Period through today. The western boundary of the County contains the Blue and Rocky ridges, a northwest-southeast trending range comprised of the Cretaceous Great Valley Sequence. The Great Valley Sequence formed when great quantities of mud, sand, and gravel accumulated as regularly bedded layers on the ocean floor of a deep trench along the margin of the North American continent. Seven geological formations have been identified in the Upper Cretaceous sediments; from oldest to youngest these are the Fiske Creek, Venado, Yolo, Sites, Funks, Guinda, and Forbes Formations. The units are exposed along a north-south axis, dipping below the surface steeply toward the east to form the hills on the west side of Yolo County. The Blue Ridge is bounded by two faults and is being uplifted on its eastern edge.

The geological units within the County are described below based on Yolo County 2030 Countywide General Plan EIR (Yolo County 2009b:527–529).

Holocene Alluvium

Late Holocene alluvial deposits overlie older Pleistocene alluvium and/or the upper Tertiary bedrock formations in the southern and eastern portions of Yolo County. This alluvium consists of sand, silt, and gravel deposited in fan, valley fill, terrace, or basin environments. These alluvial deposits contain vertebrate and invertebrate fossils of extant, modern taxa, which are generally not considered paleontologically significant.

Pleistocene Alluvium

The majority of alluvium in the Capay Valley and the southern portion of the County consist of the Pleistocene-age Modesto-Riverbank and Red Bluff formations. Vertebrate fossils in this alluvium are representative of the land mammal age, including mammoth, ground sloths, saber-toothed cats, dire wolves, rodents, birds, reptiles, and amphibians. Pleistocene alluvium is highly sensitive for paleontological resources.

Mammoth fossils have been collected from the unit mapped as the Modesto Riverbank Formations. In 2018, mammoth remains were uncovered during aggregate excavation at the CEMEX, Inc off-channel mining operation northeast of the community of Madison. In 1982, during in-channel aggregate excavations at the same general location, then operated by Solano Concrete, mammoth tusks, four to five molars, and a skull were collected in the bed of Cache Creek. In 1955, a large molar was collected about 3 miles downstream from the 1982 find (Yolo County 2019).

Tehama Formation

The Tehama Formation is exposed in the western side of the County, on both sides of the Capay Valley and in the Dunnigan Hills, and in isolated outcrops in the southern portion of the County. This series of fluvial deposits is 2,000 feet thick on average and contains fragmentary vertebrate bones. The majority of fossil sites found in the County are in the Tehama Formation.

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 (Yolo County 2019).

Capay Formation

The Capay Formation is exposed on the western side of the Capay Valley. The formation varies in thickness between 10 feet and 500 feet and consists of shale and sandstone that dates to the Eocene. The Capay Formation contains numerous invertebrate marine fossils, mostly consisting of shells and is considered to have high paleontological sensitivity.

Forbes Formation

The Forbes Formation is in the hills east of Capay Valley and also comprises the Blue Ridge on the western edge of Yolo County. The Forbes Formation consists of massive beds of fine-to-coarse-grained sandstone, with shell fragments that grade into inter-bedded siltstone and shale. This unit contains Late Cretaceous amoeboid protists and may contain invertebrate marine fossils but is not considered paleontologically significant.

Guinda Formation

The Guinda Formation is in the hills east of Capay Valley and the Blue Ridge on the western edge of Yolo County. This formation contains Late Cretaceous protozoa and amoeboid protists. There are no fossils recorded in the Guinda Formation in the County, but fossils from this formation are of paleontological significance.

Funks Formation

The Funks Formation is in the hills east of Capay Valley and the Blue Ridge on the western edge of Yolo County. The Funks Formation consists of a tan weathering, gray, marine siltstone and mudstone. The Funks Formation shale beds contain Late Cretaceous amoeboid protists. This formation is not considered paleontologically significant.

Sites Formation

The Sites Formation is found in the hills east of Capay Valley and the Blue Ridge on the western edge of Yolo County. The Sites Formation consists of thick bedded, laminated gray sandstone and thick beds of dark gray carbonaceous siltstone. This unit is up to 6,000 feet thick and has been attributed to the Late Cretaceous. No significant fossils have been found in this formation. This formation is not considered paleontologically significant.

Yolo Formation

The Yolo Formation is found in the hills east of Capay Valley and the Blue Ridge on the western edge of Yolo County. The Yolo Formation is moderately thick-bedded, fine-to-coarse grained sandstone with local mudstone and siltstone. The unit contains Carbonaceous debris and the mudstone beds have Late Cretaceous protozoa and amoeboid protists. This formation is not considered paleontologically significant.

Venado Formation

The Venado Formation is found in the hills east of Capay Valley and the Blue Ridge on the western edge of Yolo County and consists of more than 1,000 feet of massive sandstone, shale, and conglomerate. This unit may contain marine shells; however, the Venado Formation is not considered paleontological significant.

MINERAL RESOURCES

A variety of minerals were once mined in the County (Yolo County 2005). In the past, small amounts of gold and silver were mined from Cache and Putah Creeks. The Barrick Gold Mining Company's McLaughlin Mine (also known as the Homestake Mining Company), which is no longer operational, was located in the northwestern corner of the County. The primary minerals presently mined are aggregate (sand and gravel) and natural gas. There are approximately 25 natural gas fields located within Yolo County. Aggregate mining is limited by the County to off-channel locations in the Lower Cache Creek, located generally between the town of Capay and the town of Yolo.

The State of California has mapped approximately 20,000 acres of significant aggregate resources along lower Cache Creek as three Mineral Resource Zones: MRZ-1 comprises 1,458 acres, MRZ-2 comprises 18,452 acres, and MRZ-3 comprises 8,220 acres (Yolo County 2009b) (see Exhibit 3.7-4). Aggregate mining in the County is regulated through the Cache Creek Area Plan (CCAP), which includes the Off-Channel Mining Plan (OCMP). The OCMP is an aggregate resources management plan that established a policy and regulatory framework that allows for controlled off-channel gravel mining no closer than 200 feet to the banks of Cache Creek, and it is implemented through several ordinances that control commercial mining and reclamation activities. Approximately 180 million tons of aggregate have been approved for excavation and approximately 72 million tons of aggregate have actually been excavated from 1996 through 2015 (Yolo County 2019). Current mining operations include Cemex (originally Solano Concrete), Granite Capay (formerly Cache Creek Aggregates [R.C. Collet]), Granite Esparto, Syar, Teichert Esparto, Teichert Woodland, and Teichert Schwarzgruber.

3.7.2 Regulatory Setting

FEDERAL

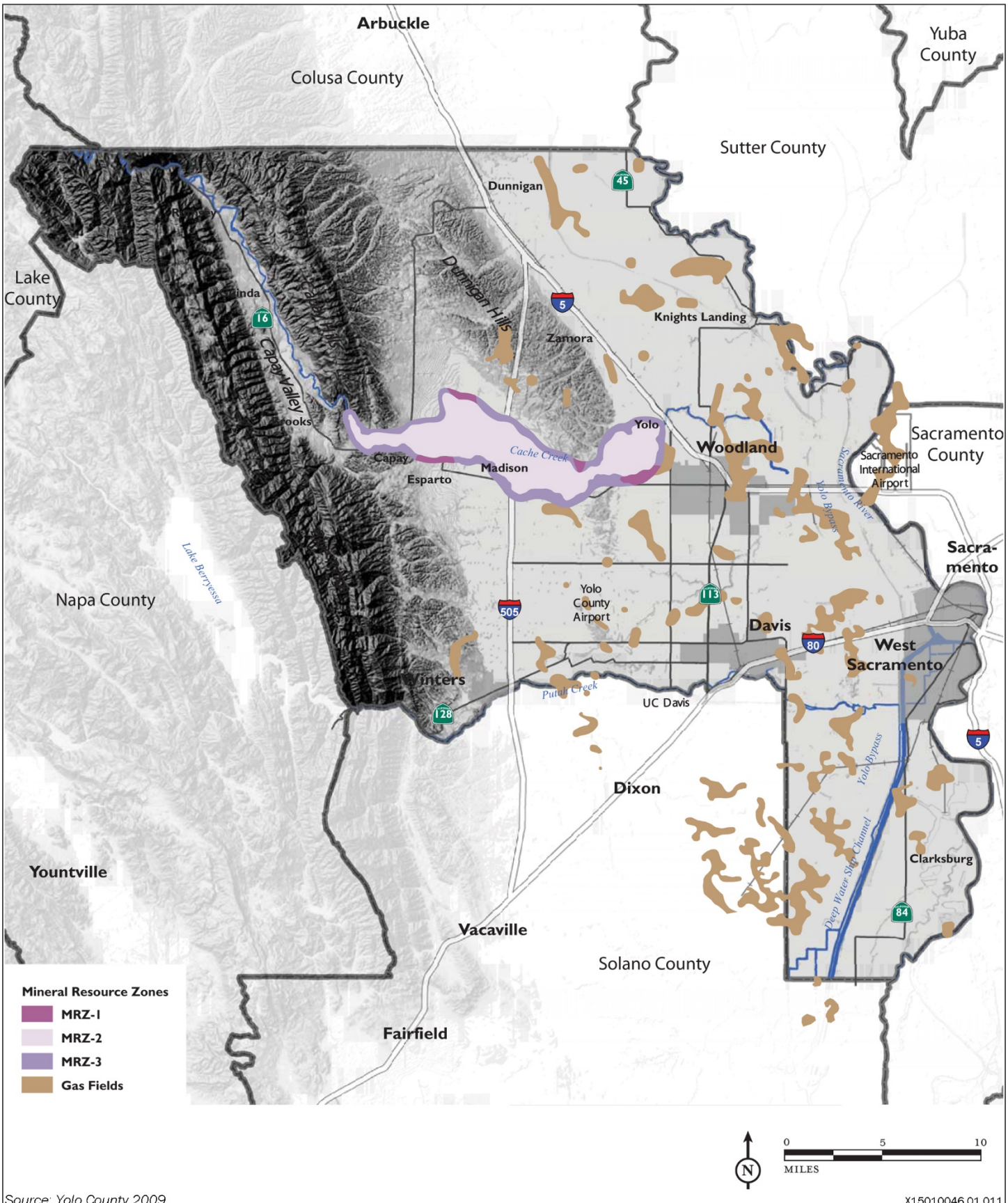
National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program. The mission of program includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The program designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (PRC Sections 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors, and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as active and inactive, and establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across these zones is strictly regulated if they are “sufficiently active” and “well-defined.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.



Source: Yolo County 2009

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Exhibit 3.7-4 **Mineral and Gas Resource Zones**

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in the CBC. Chapter 16 of the CBC identifies seismic factors that must be considered in structural design. Section 1613 (Earthquake Loads) requires structures, including nonstructural components that are permanently attached to structures and their supports and attachments, to be designed and constructed to resist the effects of earthquake motions in accordance with American Society of Certified Engineers 7 (Minimum Design Loads for Buildings and Other Structures), excluding Chapter 14 and Appendix 11A. The seismic design category for a structure is determined in accordance with Section 1613 or ASCE 7. Chapter 18 regulates the excavation of foundations and retaining walls., Appendix J of the CBC regulates grading activities, including drainage and erosion control.

State Water Resources Control Board Regulations for Cannabis Cultivation

Permitting of waste discharges to surface waters from cannabis cultivation is regulated under the State Water Resources Control Board (SWRCB) Cannabis Policy under Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities. A summary of erosion and sediment control requirements is provided below. The reader is referred to Section 3.10, "Hydrology and Water Quality," for additional details on this order.

The entire order is available for review at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf

The Cannabis General Order provides a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities. The tier structure consists of the following:

- Tier 1 outdoor commercial cultivation activities disturb an area equal to or greater than 2,000 square feet and less than 1 acre (43,560 square feet).

- Tier 2 outdoor commercial cultivation activities disturb an area equal to or greater than 1 acre.

For the purposes of this regulation, land disturbances refer to areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Land disturbance includes all activities whatsoever associated with developing or modifying land for cannabis cultivation related activities or access. Land disturbance activities include, but are not limited to, construction of roads, buildings, water storage areas and excavation, grading, and site clearing.

Tier 1 and Tier 2 enrollees must characterize the risk designation based on the slope of disturbed areas and the proximity to a water body. Applicants must comply with the riparian setback and slope limits and are classified as low, moderate, or high risk, as described below:

- Low Risk: A cannabis cultivation site is classified as low risk if no part of the disturbed area is located on a slope of 30 percent or greater. Such cannabis cultivators shall register as low risk and submit a Site Management Plan.

- Moderate Risk: A cannabis cultivation site is classified as moderate risk if any part of the disturbed area is located on a slope greater than 30 percent and less than 50 percent. Such cannabis cultivators shall register as moderate risk and submit a Site Erosion and Sediment Control Plan.

- High Risk: A cannabis cultivation site is classified as high risk if any part of the disturbed area exists within the riparian setback limits. Such cannabis cultivators shall register as high risk, submit a Disturbed Area Stabilization Plan, and shall address the compliance issue as described below. Because such cannabis cultivators pose a higher risk to water quality and will require a higher level of RWQCB oversight, they are subject to a higher application and annual fee. When the cannabis cultivation site is reconfigured to comply with the riparian setbacks, the cannabis cultivator can request the RWQCB reclassify the site to a lower risk level and allow a lower annual fee to be assessed.

To obtain coverage under the waiver or enroll under the general order, the discharger is required to submit an online application and application fee and relevant technical reports. Technical report requirements are based on tier and risk level. Pursuant to SWRCB Order WQ 2019-0001-DWQ moderate and high risk sites are required to provide the following plans to address soil erosion.

Site Erosion and Sediment Control Plan

A Site Erosion and Sediment Control Plan describes how the cannabis cultivator will implement the site erosion and sediment control requirements listed in Attachment A of the SWRCB Order WQ 2019-0001-DWQ. The report must include an analysis of slope stability and is subject to approval by RWQCB. When required, the Site Erosion and Sediment Control Plan is to be prepared by a qualified individual (i.e., a registered professional per the Cannabis Policy requirements).

Disturbed Area Stabilization Plan

A Disturbed Area Stabilization Plan describes how BPTC measures will be implemented to achieve the goal of stabilizing the disturbed area to minimize the discharge of sediment off-site and complying with the riparian setback requirements. The report must be approved by the RWQCB Executive Officer before implementation. When required, the Disturbed Area Stabilization Plan shall be prepared by a qualified professional.

Paleontological Resources

Paleontological resources on private property are considered the property of the landowner and receive no particular legal protection unless otherwise addressed in the conditions of approval of a land development permit, as mitigation in an applicable CEQA document, or through local policy and/or regulation (see below). Paleontological resources on public lands are protected by state statute (PRC Chapter 1.7, Section 5097.5, Archeological, Paleontological, and Historical Sites and Appendix G). This statue states:

> A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, 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.

LOCAL

Yolo County 2030 Countywide General Plan

The 2030 Countywide General Plan contains policies and actions associated with geologic hazards, soils, and mineral resources. Policies and actions potentially relevant to the project are provided below.

- **Policy HS-1.1:** Regulate land development to avoid unreasonable exposure to geologic hazards.
- **Policy HS-1.2:** All development and construction proposals shall be reviewed by the County to ensure conformance to applicable building standards.
- **Policy HS-1.3:** Require environmental documents prepared in connection with CEQA to address seismic safety issues and to provide adequate mitigation for existing and potential hazards identified.
- **Action HS-A1:** Require a geotechnical analysis for construction in areas with potential geological hazards and/or for purposes of environmental analysis. Recommendations of the geotechnical analysis shall be implemented.
- **Action HS-A2:** Rely upon the most current and comprehensive geological hazard mapping available in the evaluation of potential seismic hazards associated with proposed new development.
- **Action HS-A3:** Continue to participate in the Yolo County Subsidence Network and implement its recommendations.
- **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-3.5:** 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.
- **Policy CO-5.1:** Coordinate with water purveyors and water users to manage supplies to avoid long-term overdraft, water quality degradation, land subsidence and other potential problems.
- **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-A93:** Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from new development and increases in impervious surfaces.

Cache Creek Area Plan

The CCAP is a rivershed management plan adopted by Yolo County in 1996 for 14.5 miles of lower Cache Creek, between the Capay Dam and the unincorporated community of Yolo. The CCAP consists of two distinct complementary plans governing different areas of the overall plan area: the Cache Creek Resources Management Plan and the Off-Channel Mining Plan. Both plans establish a number of goals to assist in this overall management, balancing issues and concerns within the overriding vision of enhancing the variety of resource needs for the region. The following are relevant objectives from the 1996 Off-Channel Mining Plan:

- **Objective 2.3-1:** Recognize that the aggregate deposits along Cache Creek are significant to the economy of Yolo County, as well as surrounding jurisdictions.

- **Objective 2.3-2:** Discourage the encroachment of incompatible land uses into areas designated for future off-channel surface mining operations.

The following are relevant performance standards from the 2002 Cache Creek Resources Management Plan:

- **Performance Standard 6.5-2:** 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, with appropriate dignity, of the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75) feet shall immediately stop and the Community Development Director shall be notified at once. Any cultural resources found on the site shall be examined by a qualified archaeologist and the information shall be submitted to the County.

  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 excavation operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the County, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction of damage to the site, and demonstrate how the proposed mitigation would serve the public interest.

The CCAP includes regular mandatory updates to integrate the results of ongoing monitoring and by new relevant regulatory requirements. An update of the program is currently underway which includes new proposed recommendations for avoidance and documentation.

Yolo County Code

Title 7 (Building Regulations) of the Yolo County Code defines the regulations, conditions, and circumstances requiring application for a building permit for projects within the County. In general, project buildings and structures that would need to comply with the CBC as amended under Title 7 of the County Code. There are various exceptions for certain structures dedicated to agricultural uses.

Grading associated with building construction is regulated under the CBC that was adopted and incorporated into Title 7 of the County Code. Grading permits are generally not required for the following works described below. However, a Development Permit would be required for any work being done in a FEMA-designated Special Flood Hazard Area. Normal agricultural activities, which do not include the construction of cannabis-related facilities, are also exempted from grading permit requirements.

- Earthwork as approved by the Building Official, such as grading in an isolated, self-contained area if there is no danger to private or public property.

- Excavation below the finished grade for basements and footings of a building, retaining wall or other structure if such structure is authorized by a valid building permit. This shall not exempt any fill or excavation having an unsupported height greater than 5 feet after the completion of such structure. (building permits required).
- Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property. (mining permit required).
- Exploratory excavations under the direction of soil engineers or engineering geologists.
- An excavation which is either less than 2 feet in depth, or which does not create a cut slope greater than 5 feet in height and steeper than 1.5 horizontal to 1.0 vertical.
- A fill less than 1 foot in depth and placed on natural terrain with a slope flatter than 5.0 horizontal to 1.0 vertical, or less than 3 feet in depth, not intended to support structures, which does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

Title 10, Chapter 3 (Cache Creek Area Plan In-Channel Maintenance Mining Ordinance) of the Yolo County Code includes the following standards regarding paleontological resources under Section 10-3.404:

> (a) 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, with appropriate dignity, of the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five feet shall immediately stop and the Director shall be notified at once. A qualified archaeologist shall then examine any cultural resources found on the site and the information shall be submitted to the County.
>
> (b) Damaging effects to cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified archeologist prior to the commencement of excavation operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the County, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.

3.7.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

This program-level analysis is based upon current data available that consists of fault, geology, soils, paleontological resources, and mineral resource mapping and reports from the California Geological Survey, the U.S. Natural Resources Conservation Service, Yolo County, and other sources cited in Section 3.7.1, "Environmental Setting." The impact analysis below evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts on/to geologic, soil, paleontological, or mineral resources. The footprint and design details of site-specific cannabis projects are not known at this time. This analysis uses the extent and general locations of future cannabis uses assumed for each of the five alternatives as presented in Table 2-4 and Exhibits 2-4 through 2-8, provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," to provide an assessment and comparison of reasonably foreseeable outcomes from different

regulatory scenarios. Exhibits 3.7-5 through 3.7-19 overlay the assumed locations of cannabis uses for each alternative on soils, geologic, and mineral resource mapping of the County. The analysis below examines whether significant adverse impacts would occur focusing primarily on areas where overlap would occur between the mapped resource, and the assumed cannabis locations.

Construction activities that may result in geologic, soil, paleontological, and mineral resource impacts are assumed for each alternative to take place within the entire activity footprint of cannabis cultivation and noncultivation sites for Alternatives 1, 2, 3, 4, and 5 described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives" (see Appendix D). Construction would consist of vegetation removal, grading and/or trenching for the creation of cultivation sites, building pads, parking areas, access roadways, infrastructure, and drainage improvements. The depth of excavation would vary depending on the specific cannabis use and site conditions. However, excavations are assumed not to occur more than 20 feet below the existing ground surface.

Operations for cannabis uses are assumed to be contained within the identified activity footprint for cultivation sites and noncultivation sites. Operational activities that could impact geologic and soil resources include the following, as identified in Appendix D:

- Cultivation uses: Activities related to the site preparation, planting, maintenance, and harvesting of cannabis (including both outdoors and in structures) through the use of staff, equipment, and vehicles on exposed soil conditions that disturb soil conditions resulting in wind and water erosion. Operation of new drainage facilities that could alter the volume and velocity of stormwater flows that results in erosion and transport of sediment off-site.

- Noncultivation uses: Employee vehicle, service/delivery vehicle, and customer vehicle and equipment use on driveways and parking areas that are not paved and disturb soil conditions that result in wind and water erosion. Operation of new drainage facilities that could alter the volume and velocity of stormwater flows that results in erosion and transport of sediment off-site.

The assumptions for the extent of cannabis site activity footprints identified in Table 2-4 in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," were used in the impact analysis below.

Specific requirements of existing laws and regulations described in the regulatory setting as well as the proposed CLUO (see Appendix C) were assessed for their ability to avoid or reduce the exposure of people or structures to substantial adverse effects.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address geology, soil, paleontological, and mineral resources considered important by the state, CEQA, and Yolo County and address whether implementation of the CLUO could create an impact.

The project would result in a significant impact related to geology and soils if it would:

- result in substantial soil erosion or the loss of topsoil;

- 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;

- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property;

- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- 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; or
- 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.

No significant environmental impacts from seismic hazards and the operation of on-site wastewater (septic) systems by future cannabis uses permitted under the CLUO are expected. The reader is referred to Section 3.0, "Environmental Setting, Impacts, and Mitigation Measures," for the analysis dismissing this issue from further evaluation.

IMPACT ANALYSIS

Impact GEO-1: Create Substantial Soil Erosion or Loss of Topsoil

Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could expose individual operations to soil stability conditions subject to soil erosion and sedimentation. Compliance with existing building and other relevant regulations, and of the CLUO would ensure soil erosion and sedimentation is adequately addressed for all of the five alternatives. This impact would be **less than significant** for all alternatives.

Cannabis uses are assumed to be located on topography throughout the County consisting primarily of gentle slopes and valley floor but could result soil erosion that results in the loss of soils, and sedimentation of County waterways (e.g., Cache Creek and Putah Creek). As identified in Table 3.7-1 and Exhibit 3.7-3, the Dibble-Millsholm, Positas, Sehorn-Balcorn soil types have moderate to very high erosion potential.

As discussed above in Section 3.7.2, "Regulatory Setting," and Section 3.10, "Hydrology and Water Quality," the SWRCB Order WQ 2019-0001-DWQ contains requirements for cannabis cultivation that requires the use of soil erosion and sedimentation controls (best management practices [BMPs]) for soil stability and the implementation of a Site Erosion and Sediment Control Plan and Disturbed Area Stabilization Plan for higher risk sites. Examples of BMPs for soil erosion control that may be used include the use of ground cover vegetation (grasses), detention/water quality control basins, drainage control features that are rock lined and that reduce stormwater flow velocities, and other similar features. In addition, Section 8-2.1408(V) of the CLUO includes the following requirements and performance standards for all cannabis uses that would apply to all five alternatives that requires soil stabilization:

> Grading/Land Clearing – No grading or land clearing for cannabis activities may occur without prior authorization pursuant to an approved Cannabis Use Permit, and a County Grading Permit if applicable. Grading or land clearing in advance of approved permits is grounds for denial/revocation of any County Cannabis Use Permit and/or County Cannabis License. Grading and drainage shall be implemented in a manner that prevent soil erosion, and the accumulation of water, except in areas intended for retention. Grading and/or land clearing requires the issuance of a County Grading Permit and must be conducted subject to a State construction storm water permit if applicable. CDFA licensees shall demonstrate compliance with the principles and guidelines for discharge and water quality contained in the Cannabis Cultivation Policy of the State Water Resources Control Board. Excessive grading and disturbance shall be avoided. Cannabis activities on slopes of ten percent or greater require review and approval by the County Engineer to ensure the application of appropriate environmental protections and best management practices to control for erosion, sedimentation, and water quality to acceptable levels. A geotechnical analysis by a licensed civil engineer in the State of California may be required at the County's discretion, to minimize erosion, sedimentation, and water quality to acceptable levels.

Section 8-2.1408(F) of the CLUO also requires that design and construction of buildings and structures shall comply with all applicable County codes, standards, regulations, and guidelines. These provisions are consistent with General Plan Action CO-A93.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of parcels developed with residences. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant soil erosion impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Soil types and existing and eligible cultivation sites for Alternative 1 are identified in Exhibit 3.7-5. As shown in Exhibit 3.7-5, there are cultivation sites within the Sehorn-Balcom and Dibble-Milsolm soil associations that have a moderate to very high water erosion hazard. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to due to zoning standards under the CLUO. While the total number of cultivation sites would not increase, assumed relocation activities could result in the construction of new cultivation sites that may involve 18 acres of grading activities (see Table 2-5), removal of ground cover potentially resulting in exposed soils at operating outdoor cultivation sites, and modifications to individual site drainage conditions that could result in soil erosion impacts. Existing and relocated cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil stability and avoid soil erosion impacts.

This impact would be **less than significant** under Alternative 1.

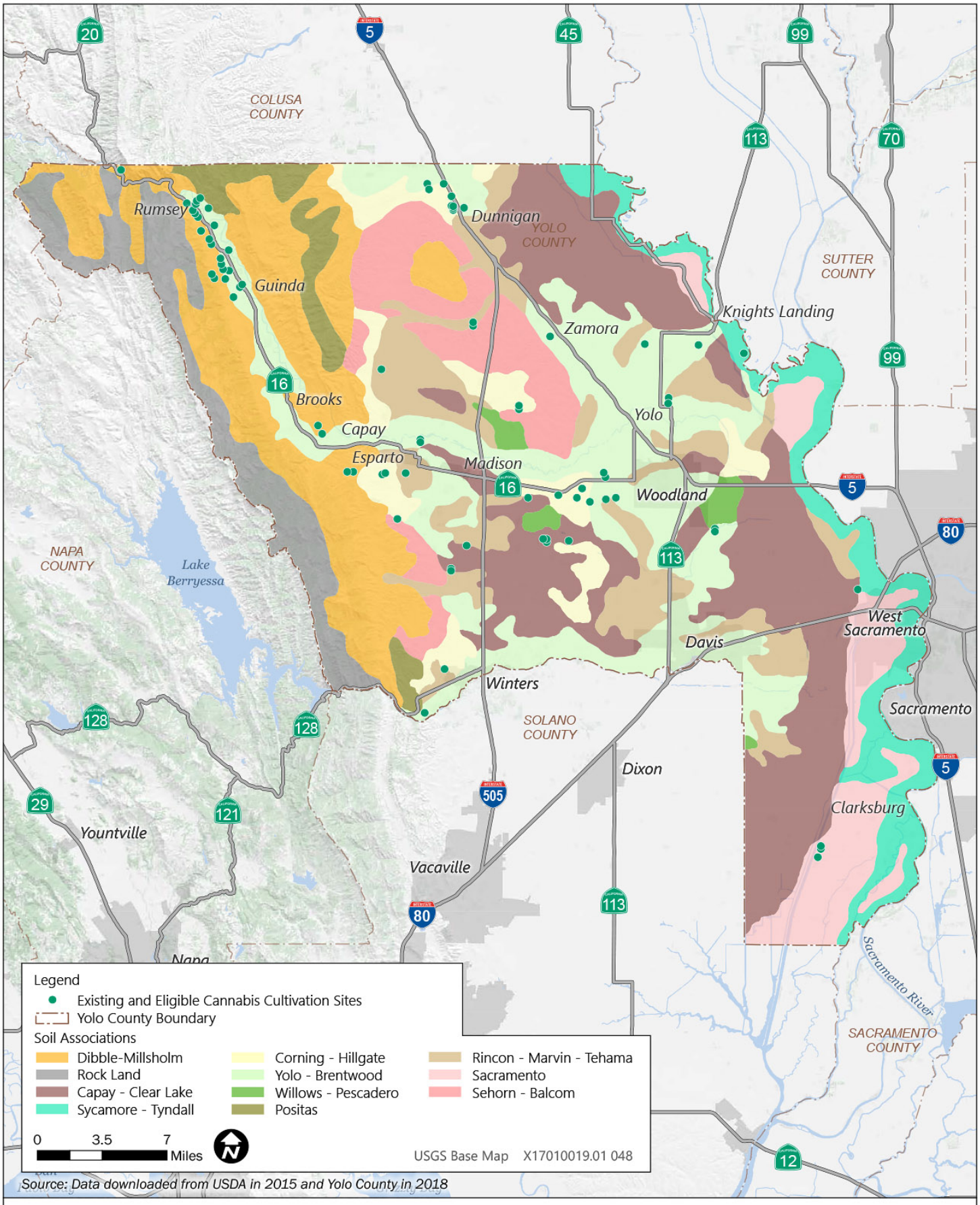
Alternative 2: All License Types with Moderate Limits

Exhibit 3.7-6 identifies the soil types associated with assumed locations of cannabis uses (cultivation and noncultivation) under Alternative 2. As shown in Exhibit 3.7-6, Alternative 2 could place 14 assumed new cannabis uses within the Sehorn-Balcom and Dibble-Milsolm soil associations that have a moderate to very high water erosion hazard. This alternative could also place 14 new cannabis uses near Cache Creek and three near Putah Creek that could result in sedimentation into these waterways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of 30 of the 78 existing and eligible cultivation sites pursuant to CLUO zoning and buffer standards could involve approximately 164 acres of grading activities countywide (see Table 2-5) that could create soil erosion impacts. Removal of ground cover could result in exposed soils at operating outdoor cultivation sites. Modifications to individual site drainage conditions for cannabis uses could also result in soil erosion impacts. Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent soil erosion.

This impact would be **less than significant** under Alternative 2.

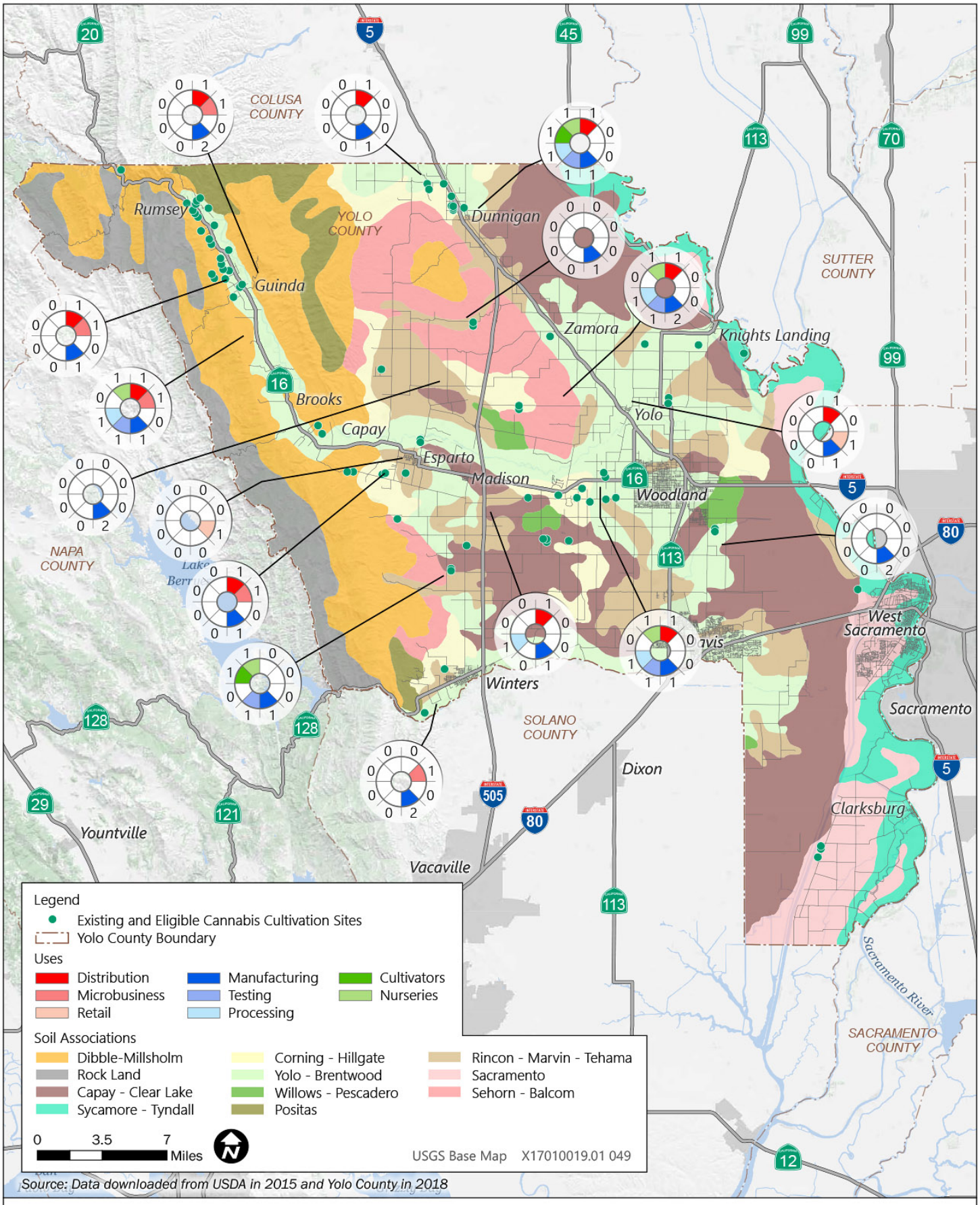
Alternative 3: All License Types with High Limits

The assumed locations of new cannabis uses under Alternative 3 (cultivation and noncultivation sites) shown in Exhibit 3.7-7 could place 24 new cannabis uses within the Sehorn-Balcom and Dibble-Milsolm soil associations that have a moderate to very high water erosion hazard. This alternative could also place 20 new cannabis uses near Cache Creek and four near Putah Creek that could result in sedimentation of these waterways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of nine of the 78 existing and eligible cultivation sites pursuant to CLUO zoning standards could involve approximately 379 acres of grading activities countywide (see Table 2-5) that could create soil



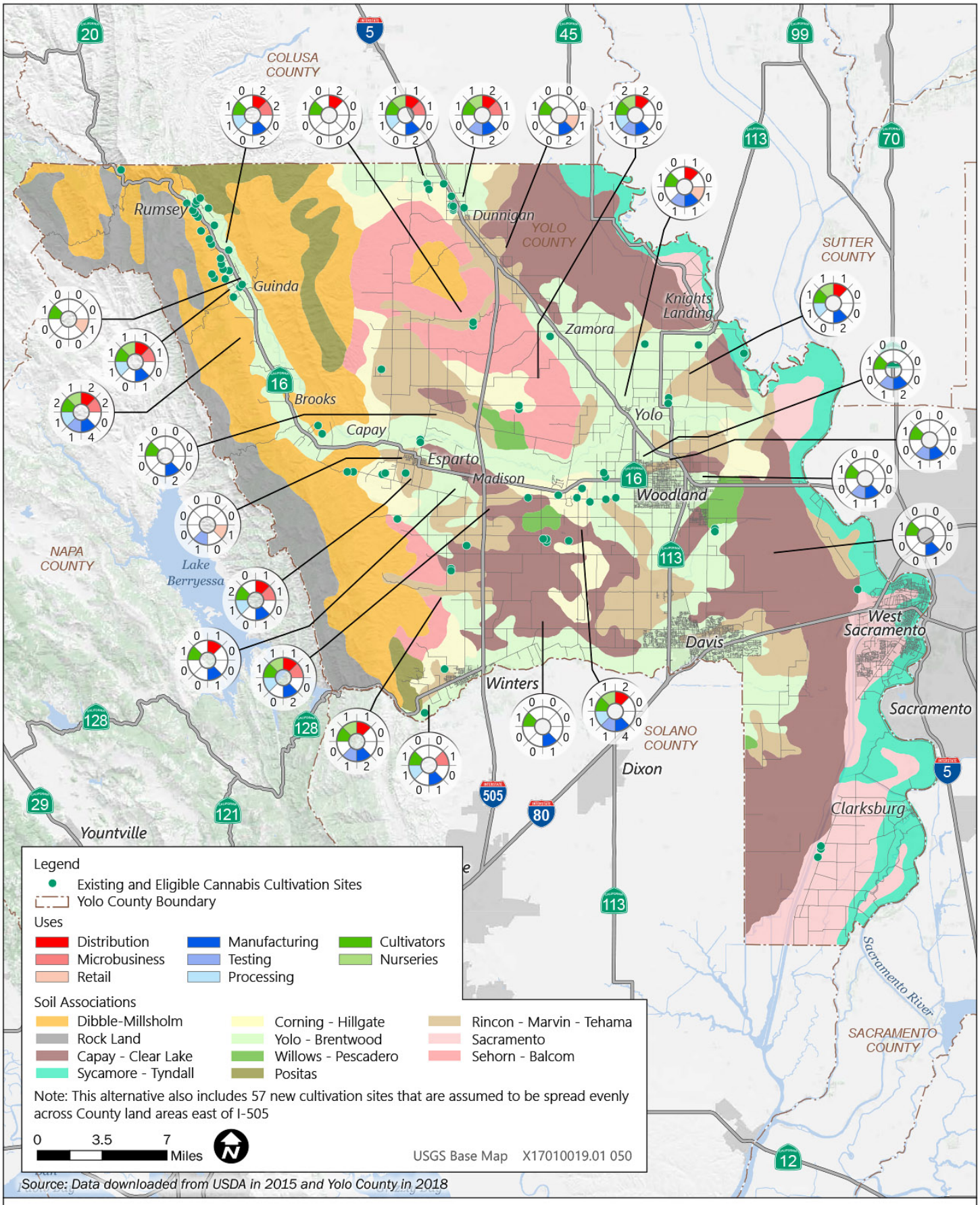
Source: Data downloaded from USDA in 2015 and Yolo County in 2018

Exhibit 3.7-5 **Alternative 1 Cannabis Uses and Soil Associations**



Source: Data downloaded from USDA in 2015 and Yolo County in 2018

Exhibit 3.7-6 **Alternative 2 Cannabis Uses and Soil Associations**



Source: Data downloaded from USDA in 2015 and Yolo County in 2018

Exhibit 3.7-7 **Alternative 3 Cannabis Uses and Soil Associations**

erosion impacts. Lack of ground cover resulting in exposed soils at operating outdoor cultivation sites and modifications to individual site drainage conditions for cannabis uses could also result in soil erosion impacts. Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevents soil erosion.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

The assumed locations of Alternative 4 cannabis uses (cultivation and noncultivation sites) shown in Exhibit 3.7-8 could place 18 new cannabis uses within the Sehorn-Balcom and Dibble-Milsolm soil associations that have a moderate to very high water erosion hazard. This alternative would also place nine new cannabis uses near Cache Creek and two near Putah Creek that could result in sedimentation of these waterways. The potential construction activity for assumed cannabis uses (new, relocated, and conversion of outdoor cultivation to mixed-light or indoor cultivation) could involve approximately 122 acres of grading activities countywide that could create soil erosion impacts (see Table 2-5). Cultivation sites that involve buildings without a permanent floor would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil stability. While cultivation sites within buildings with permanent floors and noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevents soil erosion.

This impact would be **less than significant** under Alternative 4.

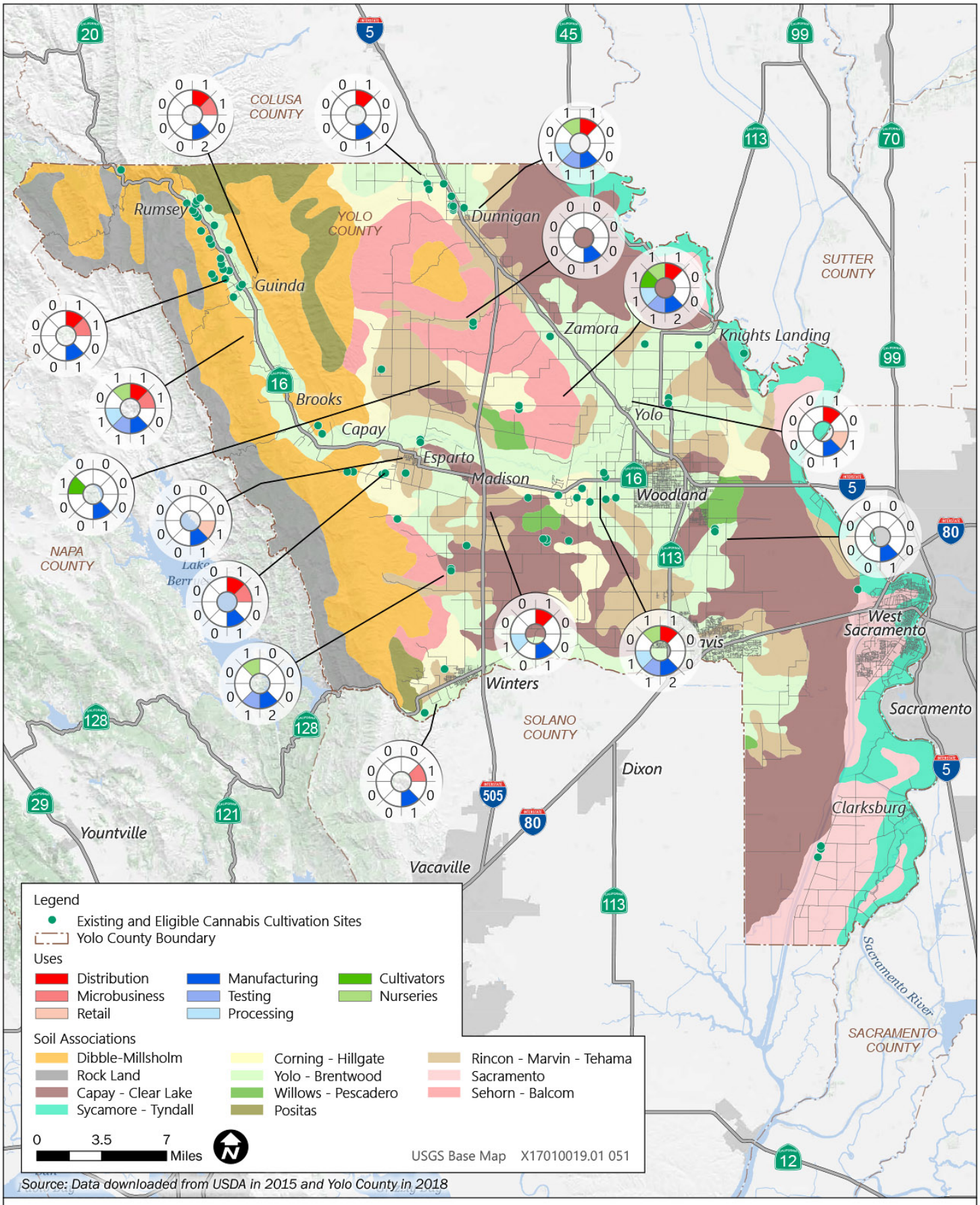
Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

The assumed locations of Alternative 5 cannabis uses (cultivation and noncultivation sites) shown in Exhibit 3.7-9 could place 23 new cannabis uses within the Sehorn-Balcom and Dibble-Milsolm soil associations that have a moderate to very high water erosion hazard. This alternative would also place seven new cannabis uses near Cache Creek and two near Putah Creek that could result in sedimentation of these waterways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of 30 of the 78 existing and eligible cultivation sites pursuant to CLUO zoning and buffer standards could involve approximately 163 acres of grading activities countywide that could create soil erosion impacts (see Table 2-5). Lack of ground cover resulting in exposed soils at operating outdoor cultivation sites and modifications to individual site drainage conditions for cannabis uses could also result in soil erosion impacts. Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevents soil erosion.

This impact would be **less than significant** under Alternative 5.

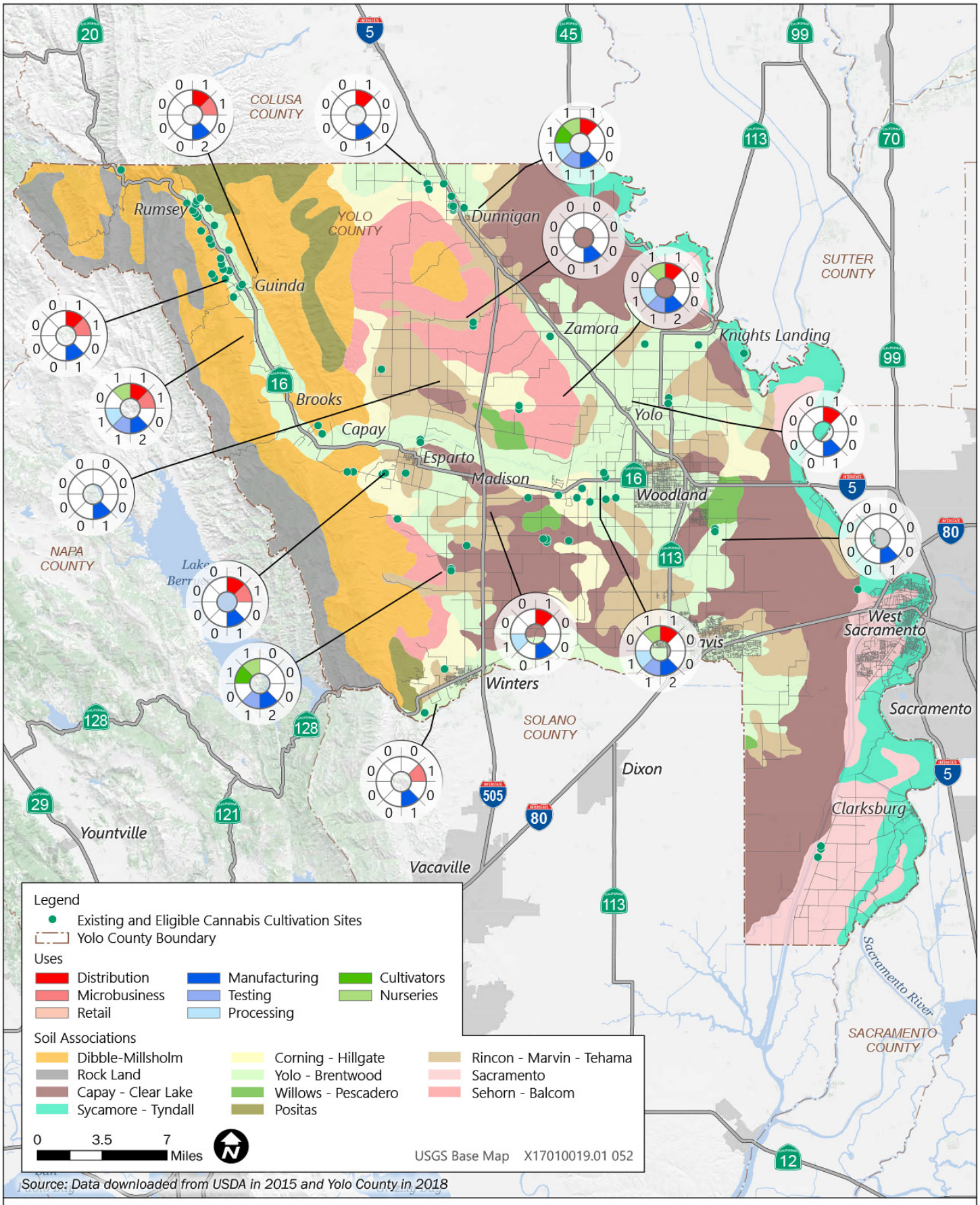
Mitigation Measures

No mitigation is required for any of the alternatives.



Source: Data downloaded from USDA in 2015 and Yolo County in 2018

Exhibit 3.7-8 **Alternative 4 Cannabis Uses and Soil Associations**



Source: Data downloaded from USDA in 2015 and Yolo County in 2018

Exhibit 3.7-9 **Alternative 5 Cannabis Uses and Soil Associations**

Impact GEO-2: Be Located on a Geologic Unit or Soil That Is Unstable or Would Become Unstable as a Result of the Project or Be Located on Expansive Soil, Creating Direct or Indirect Risks to Life or Property

The majority of Yolo County is characterized by even topography and gentle slopes; however site-specific conditions may include steep slopes, expansive soils, and other related conditions that can result in soil stability hazards. Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could expose individual operations to geologic and soil stability conditions that could adversely affected. Compliance with existing building and other relevant regulations, and implementation of Section 8-2.1408(V) of the CLUO that requires approval of a grading plan would ensure soil erosion and sedimentation is adequately addressed for all of the five alternatives. This impact would be **less than significant** for all alternatives.

As noted in Section 3.7.1, "Environmental Setting," the County is predominantly flat with gentle slopes; however, site-specific conditions related to topography, slope, and soils could result in geologic stability issues should grading and development be conducted without proper engineering and design. Cannabis uses are assumed to be located on topography throughout the County consisting primarily of gentle slopes and valley floor but could result in slope stability issues in areas such as Capay Valley. As identified in Table 3.7-1 and Exhibit 3.7-3, expansive soil conditions exist throughout the County and can damage foundations and roadways associated with cannabis uses.

As discussed above in Section 3.7.2, "Regulatory Setting," and Section 3.10, "Hydrology and Water Quality," the SWRCB Order WQ 2019-0001-DWQ contains requirements for cannabis cultivation that requires the use of soil stability controls (best management practices [BMPs]) for soil stability and the implementation of a Site Erosion and Sediment Control Plan and Disturbed Area Stabilization Plan for higher risk sites. Section 8-2.1408(V) of the CLUO requires that cannabis uses on slopes of ten percent or greater require review and approval by the County Engineer to ensure the application of appropriate environmental protections and best management practices to ensure site stability. Compliance may require provision of a geotechnical analysis by a licensed civil engineer in the State of California to demonstrate site stability.

Section 8-2.1408(F) of the CLUO also requires that design and construction of buildings and structures shall comply with all applicable County codes, standards, regulations, and guidelines. This would include building standards that address potential hazards associated with expansive soils, which could be addressed through soil treatments at foundations and roadbeds. These provisions are consistent the geologic hazard and soil erosion policy provisions in the General Plan (Policy HS-1.1 and Action CO-A93).

Subsidence due to groundwater pumping has been detected in the northern Yolo-Zamora area of Yolo County between Zamora and Knights Landing, where subsidence is reported to be on the order of 5 feet, and the vicinity of the cities of Davis and Woodland, where subsidence is estimated at 2 or 3 feet (Water Resources Association of Yolo County 2018). As further addressed in Section 3.10, "Hydrology and Water Quality," none of the five alternatives would result in significant groundwater demands that would further exacerbate existing land subsidence conditions in the County.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of parcels developed with residences. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant soil stability impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Geologic conditions at existing and eligible cultivation sites for Alternative 1 are shown in Exhibit 3.7-10 and includes cultivation on sloped sites. All soils in the County have moderate to high expansive soil potential that could damage foundations and roadways. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to due to zoning standards under the CLUO. While the total number of cultivation sites would not increase, relocation could result in the construction of new cultivation sites that may involve 18 acres of grading activities that could create geologic and soil stability issues (see Table 2-5).

Existing and relocated cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain site stability.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

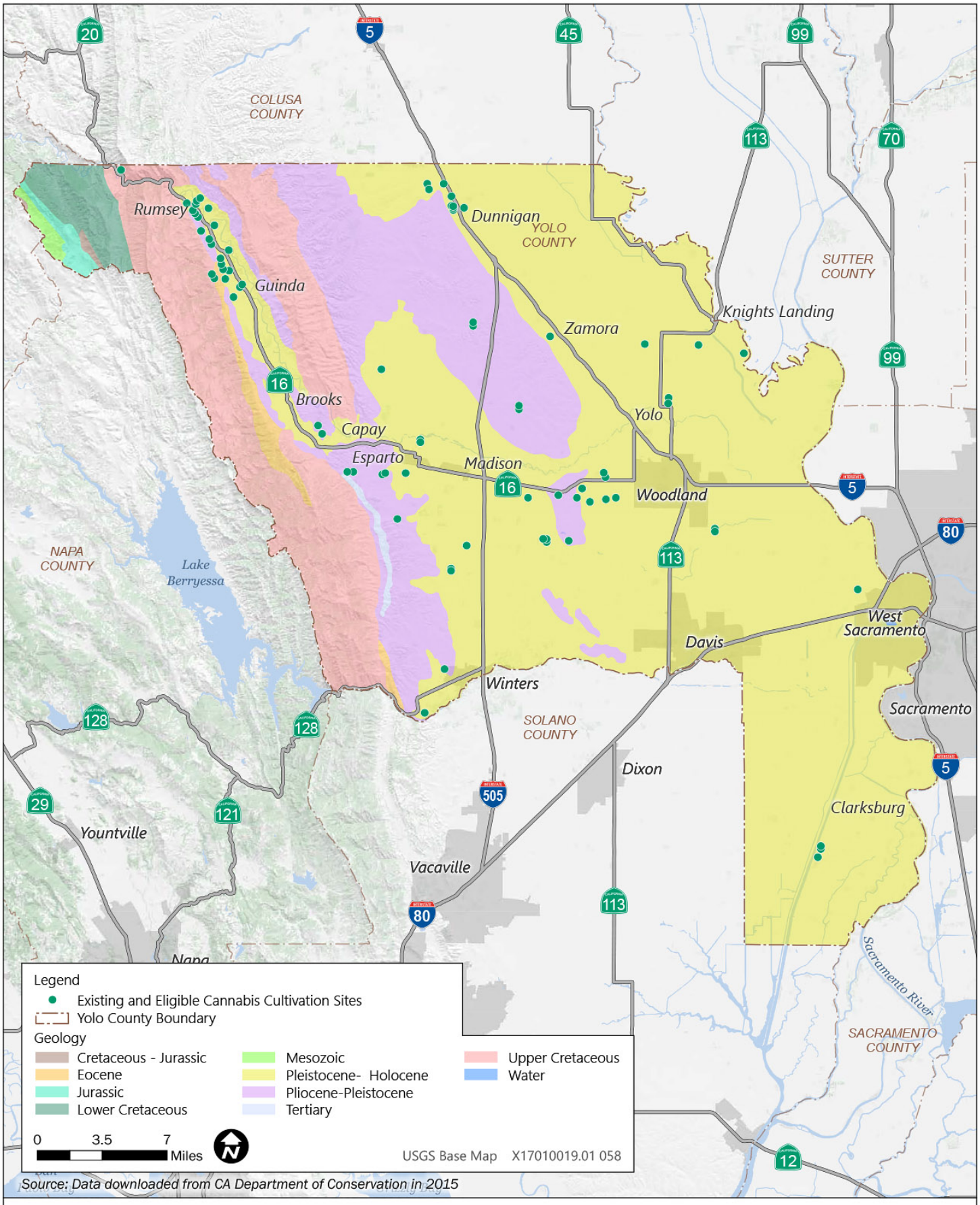
Exhibit 3.7-11 identifies the geologic conditions associated with assumed locations of cannabis uses (cultivation and noncultivation) under Alternative 2. Alternative 2 could place 18 assumed new cannabis uses within sloped conditions associated with Capay Valley and Dunnigan Hills. All soils in the County have moderate to high expansive soil potential that could damage foundations and roadways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of 30 of the 78 existing and eligible cultivation sites pursuant to CLUO zoning and buffer standards could involve approximately 164 acres of grading activities countywide (see Table 2-5). Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil and slope stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent geologic and soil stability issues.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

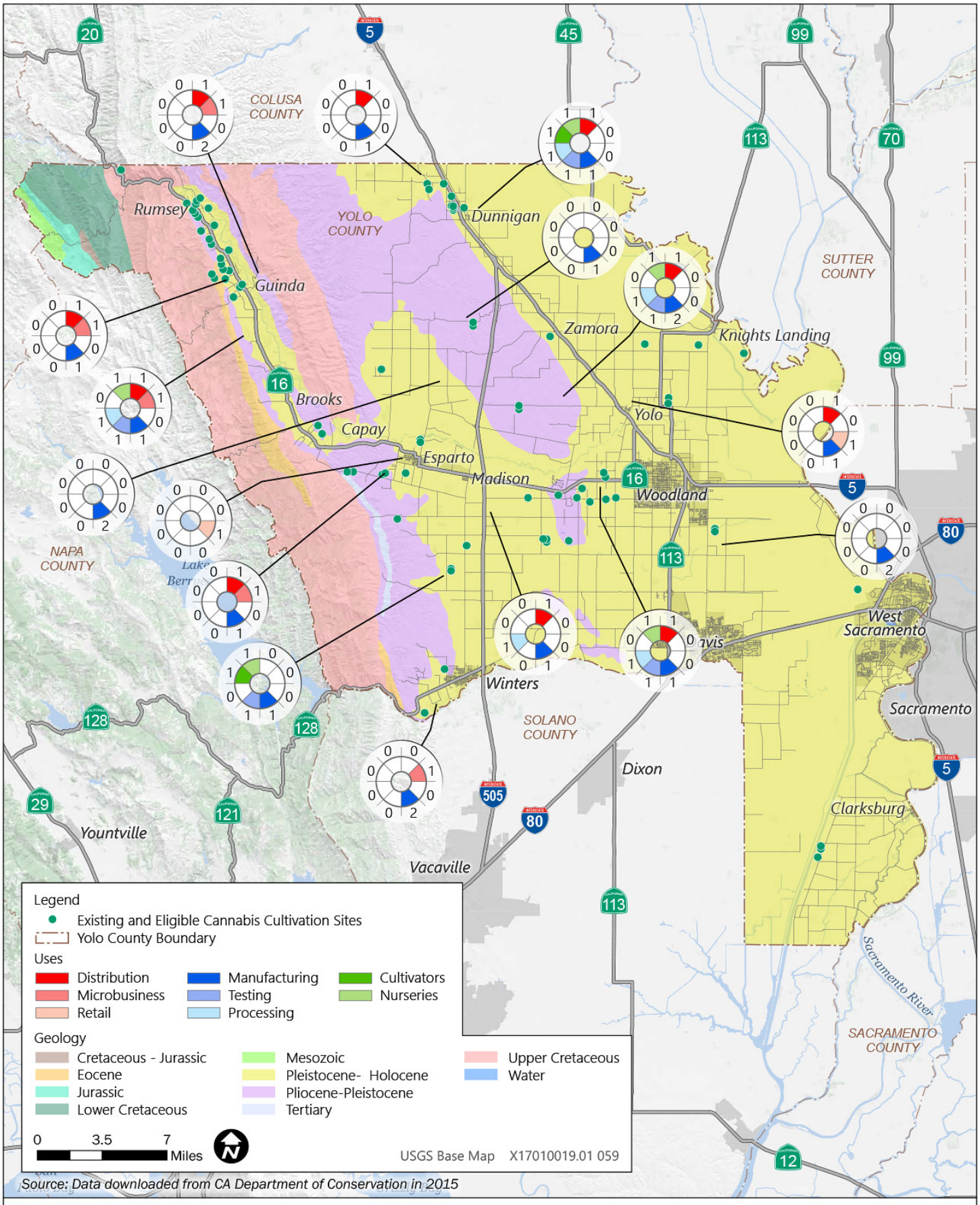
The assumed locations of Alternative 3 new cannabis uses (cultivation and noncultivation sites) in relation to geologic conditions is shown in Exhibit 3.7-12. This alternative could place 33 assumed new cannabis uses within sloped conditions associated with Capay Valley and Dunnigan Hills. All soils in the County have moderate to high expansive soil potential that could damage foundations and roadways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of nine of the 78 existing and eligible cultivation sites pursuant to CLUO zoning standards could involve approximately 379 acres of grading activities countywide (see Table 2-5). Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil and slope stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent geologic and soil stability issues.

This impact would be **less than significant** under Alternative 3.



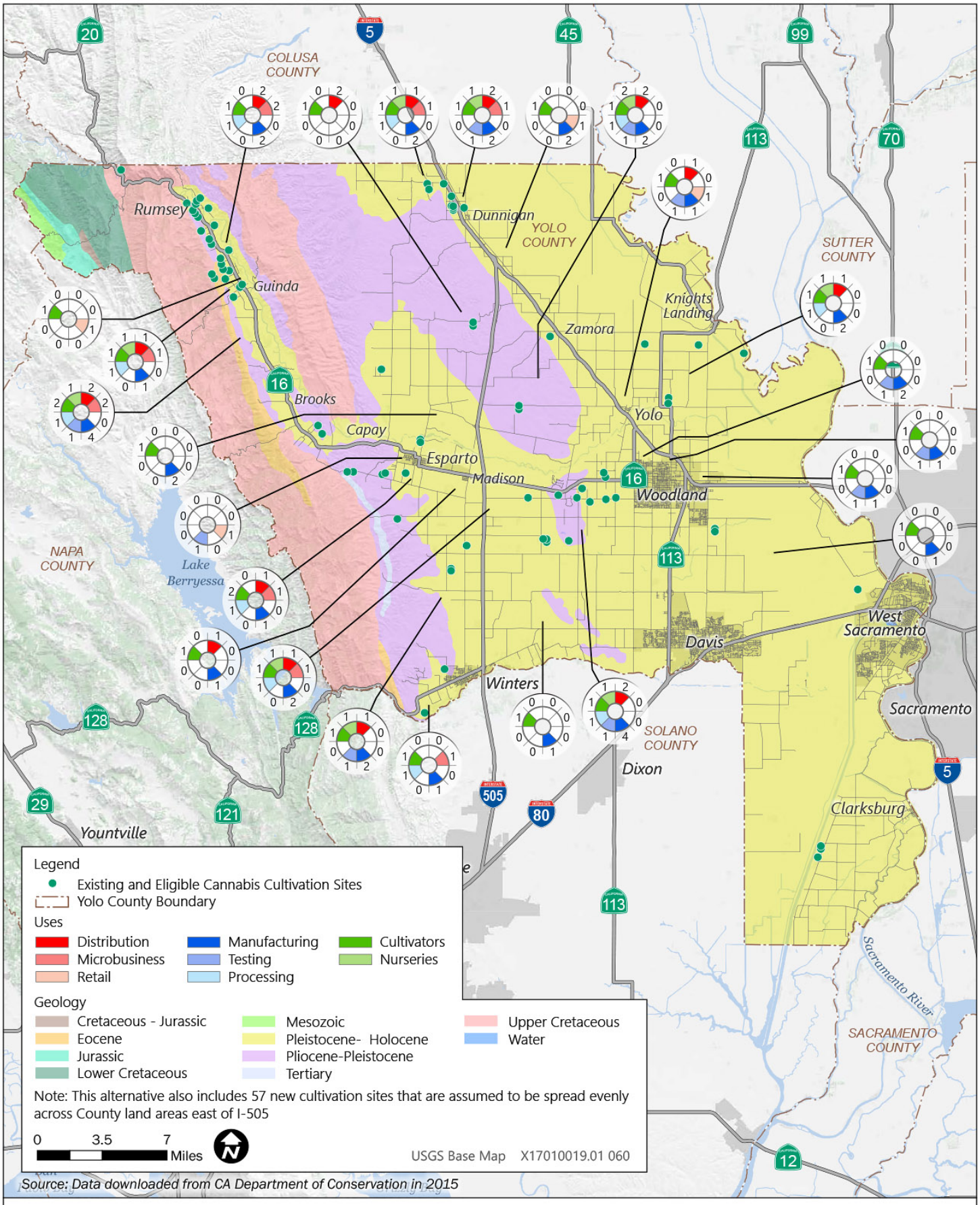
Source: Data downloaded from CA Department of Conservation in 2015

Exhibit 3.7-10 **Alternative 1 Cannabis Uses and Geologic Conditions**



Source: Data downloaded from CA Department of Conservation in 2015

Exhibit 3.7-11 **Alternative 2 Cannabis Uses and Geologic Conditions**



Source: Data downloaded from CA Department of Conservation in 2015

Exhibit 3.7-12 **Alternative 3 Cannabis Uses and Geologic Conditions**

ASCENT ENVIRONMENTAL

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

The assumed locations of Alternative 4 cannabis uses (cultivation and noncultivation sites) in relation to geologic conditions is shown in Exhibit 3.7-13. This alternative could place 21 assumed new cannabis uses within sloped conditions associated with Capay Valley and Dunnigan Hills. All soils in the County have moderate to high expansive soil potential that could damage foundations and roadways. The potential construction activity for assumed cannabis uses (new, relocated, and conversion of outdoor cultivation to mixed-light or indoor cultivation) could involve approximately 122 acres of grading activities countywide that could create soil erosion impacts (see Table 2-5). Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil and slope stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent geologic and soil stability issues.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

The assumed locations of Alternative 5 cannabis uses (cultivation and noncultivation sites) in relation to geologic conditions is shown in Exhibit 3.7-14. This alternative could place 21 assumed new cannabis uses within sloped conditions associated with Capay Valley and Dunnigan Hills. All soils in the County have moderate to high expansive soil potential that could damage foundations and roadways. The potential construction activity for assumed new cannabis uses as well as the assumed relocation of 30 of the 78 existing and eligible cultivation sites pursuant to CLUO zoning and buffer standards could involve approximately 163 acres of grading activities countywide (see Table 2-5). Cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) would require that cultivation sites maintain soil and slope stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent geologic and soil stability issues.

This impact would be **less than significant** under Alternative 5.

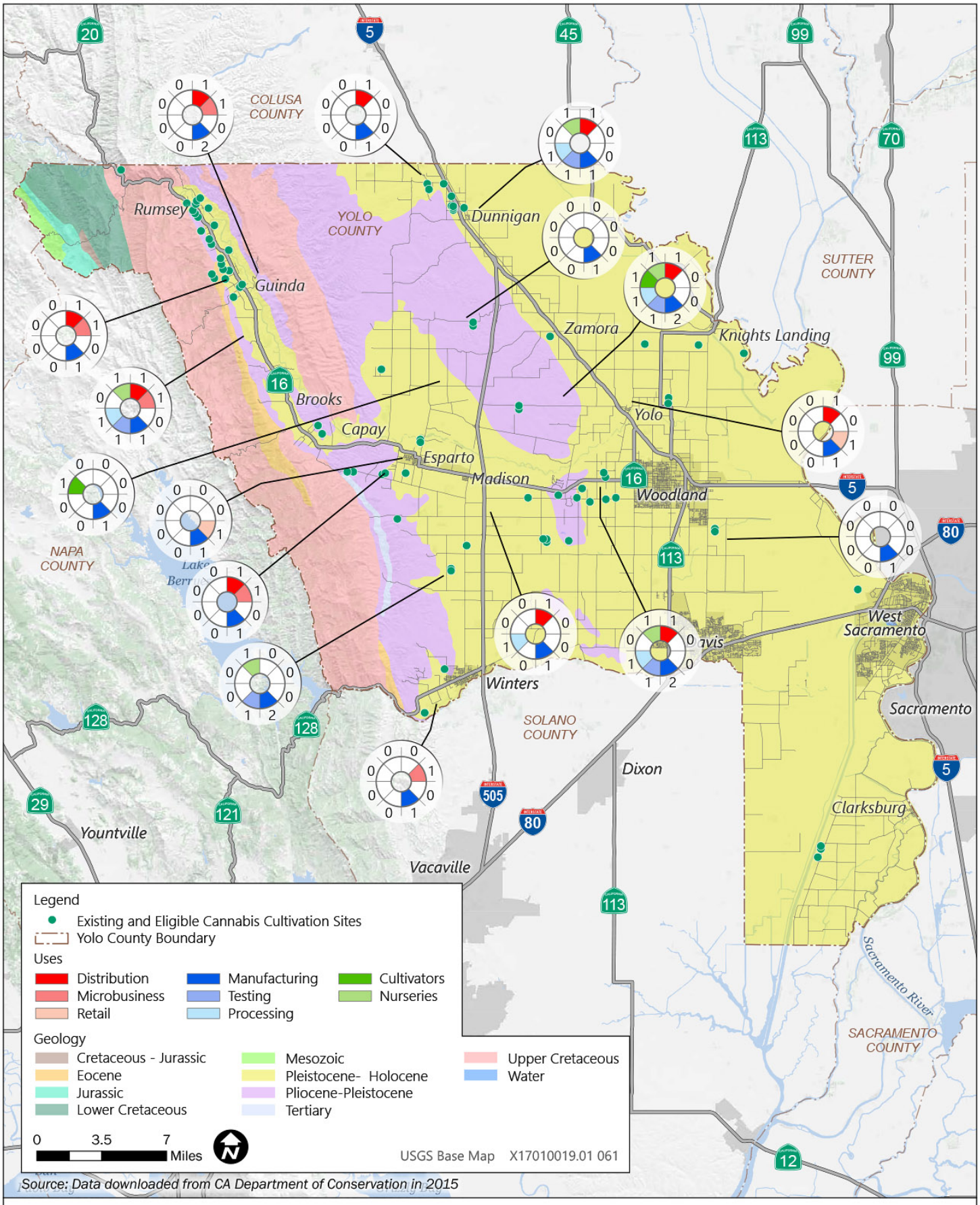
Mitigation Measures

No mitigation is required for any of the alternatives.

Impact GEO-3: Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature

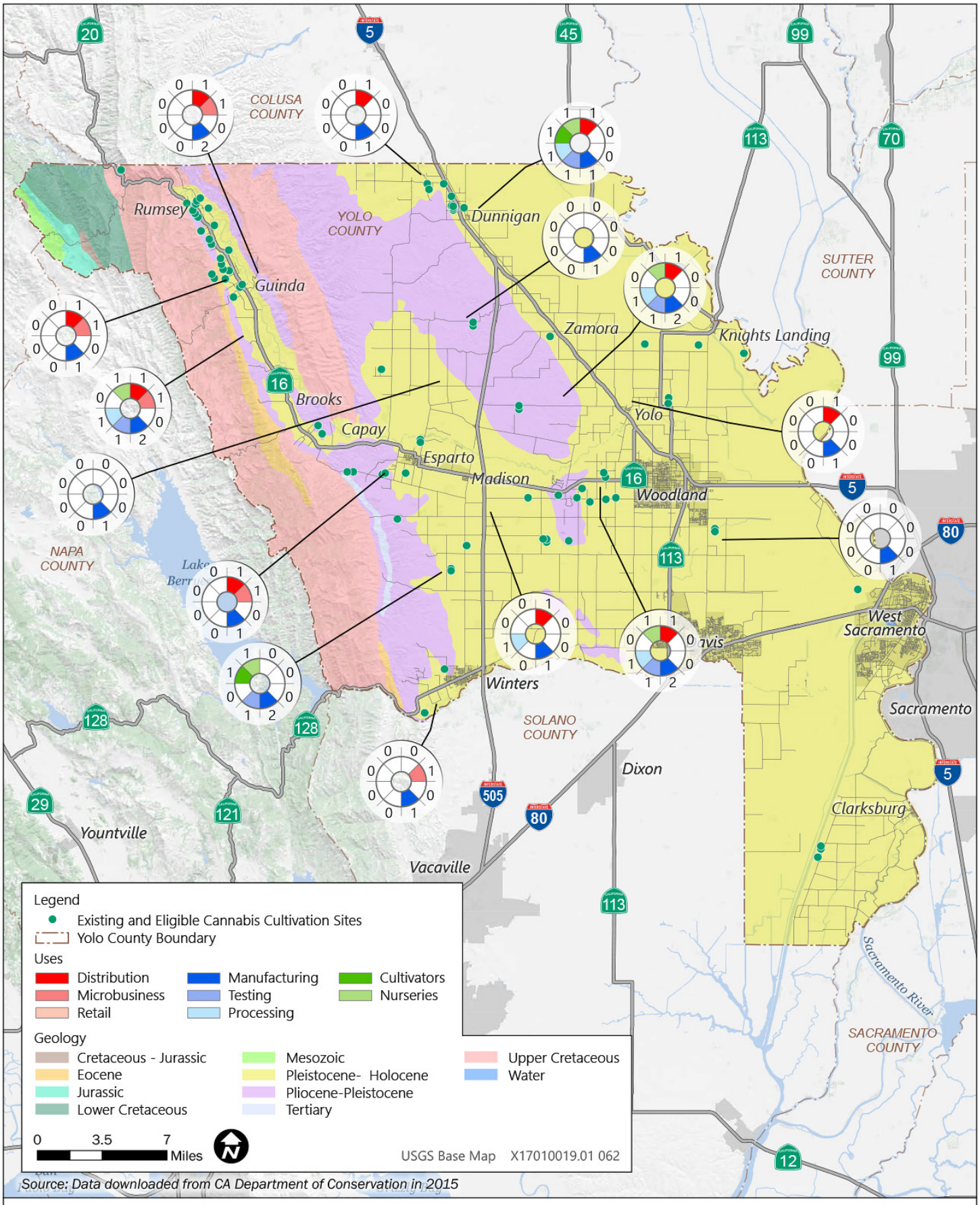
Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in discovery of previously unknown paleontological resources. Section 8-2.1408(H) of the CLUO would require that cannabis uses protect and mitigate discovered paleontological resources. This impact would be **less than significant** for all alternatives.

As noted in Section 3.7.1, "Environmental Setting," there are geologic features in the County that have potential to contain paleontological resources. These geologic features are located primarily in the western portion of the County near Capay Valley. Paleontological resources are classified as non-renewable scientific resources and are protected by state statute as well as by Yolo County General Plan Action CO-A63 that requires a cultural resources inventory for all new development projects.



Source: Data downloaded from CA Department of Conservation in 2015

Exhibit 3.7-13 **Alternative 4 Cannabis Uses and Geologic Conditions**



Source: Data downloaded from CA Department of Conservation in 2015

Exhibit 3.7-14 **Alternative 5 Cannabis Uses and Geologic Conditions**

Section 8-2.1408(H)(1) of the CLUO includes the following requirements and performance standards that addresses paleontological resources for all cannabis uses (cultivation and noncultivation) that would apply to all five alternatives:

> In accordance with Policies CO-4.12 and CO-4.13, and Actions CO-A63 through CO-A66, of the Cultural Resources chapter of the Conservation and Open Space Element of the County General Plan, applicants shall submit a preliminary site survey to determine the potential for archeological, historical, or paleontological resources to be located on the project site. If the site has a low potential for this to occur, no further actions are necessary unless resources are encountered during construction or farming. If the site has a medium to high potential, a cultural resources inventory is required to be submitted as part of the application. If onsite resources are identified, a mitigation plan is required to protect identified resources in accordance with General Plan Actions CO-A63 and CO-A64 prior to issuance of permits. If cultural resources (archaeological, historic, paleontological) are encountered during construction, workers shall not alter the materials or their context until an appropriately trained cultural resource consultant has evaluated the find. Project personnel shall not collect cultural resources. 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 or walls, structures and remains with square nails, and refuse deposits often in old wells and privies.

Section 8-2.1408(OO) of the CLUO also requires that site design demonstrates protection of paleontological resources and Section 8-2.14010(C)(1) requires that permittees submit a Cultural Resources Assessment that would also evaluate the potential for paleontological resources on the site as required by Section 8-2.1408(H). Compliance with these CLUO requirements would require the implementation of protection measures (e.g., halting of construction and careful removal of the discovered resource) and may require site plans to be redesigned to protect the identified paleontological resources.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of parcels developed with residences. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given minimal size of the cultivation area and its location within a developed parcel, no significant paleontological resource impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to due to zoning standards under the CLUO. Assumed relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to disturb approximately 18 acres that may contain paleontological resources (see Table 2-5).

One of these existing cultivation sites that are assumed to require relocation is located in the western portion of the County in areas containing geologic deposits that have potential for paleontological resources. Cannabis cultivation operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which require a site survey to determine the potential for paleontological resources and development of a mitigation plan, if merited, to protect identified paleontological resources in accordance with General Plan Actions CO-A63 and CO-A64. Depending on the nature, extent, and importance of possible or discovered paleontological resources, actions could include project redesign, avoidance, removal, and/or documentation. This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 54 new cannabis cultivation and noncultivation uses that could disturb approximately 164 acres that may contain paleontological resources (see Table 2-5).

There are existing and new cannabis sites assumed as a part of this alternative that are located in the western portion of the County on geologic deposits that have potential for paleontological resources. This alternative could result in 29 assumed new cannabis uses in these areas. Cannabis operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which require a site survey to determine the potential for paleontological resources and development of a mitigation plan if merited, to protect identified paleontological resources in accordance with General Plan Actions CO-A63 and CO-A64. Depending on the nature, extent, and importance of possible or discovered paleontological resources, actions could include project redesign, avoidance, removal, and/or documentation. This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed that the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites and the additional 186 new cannabis cultivation and noncultivation uses could disturb approximately 379 acres that may contain paleontological resources (see Table 2-5).

Some cannabis sites are located in the western portion of the County within geologic features that have potential for paleontological resources. This alternative could result in 58 assumed new cannabis uses in these areas. Cannabis operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which require a site survey to determine the potential for paleontological resources and development of a mitigation plan if merited, to protect identified paleontological resources in accordance with General Plan Actions CO-A63 and CO-A64 before the issuance of permits that may require redesigning the site to avoid the paleontological resource, capping the paleontological resource site to avoid impacts, or properly removing and curating the resource. This section also requires protection of paleontological resources discovered during construction. This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. The alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. These activities could disturb approximately 122 acres that may contain paleontological resources (see Table 2-5).

Some cannabis sites are located in the western portion of the County within geologic features that have potential for paleontological resources. This alternative could result in 29 assumed new cannabis uses and the conversion of existing outdoor cultivation sites to greenhouses and indoor buildings in these areas. Cannabis operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which require a site survey to determine the potential for paleontological resources and development of a mitigation plan, if merited, to protect identified paleontological resources in accordance with General Plan Actions CO-A63 and CO-A64 before the issuance of permits that may require redesigning the site to avoid the paleontological resource, capping the paleontological resource site to avoid impacts, or properly removing and curating the resource. This section also requires protection of paleontological resources discovered during construction. This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 52 new cannabis cultivation and noncultivation uses assumed under this alternative could disturb approximately 163 acres that may contain paleontological resources (see Table 2-5).

Some cannabis sites are located in the western portion of the County within geologic features that have potential for paleontological resources. This alternative could result in 28 assumed new cannabis uses in these areas. Cannabis operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which requires a site survey to determine the potential for paleontological resources and development of a mitigation plan if merited, to protect identified paleontological resources in accordance with General Plan Actions CO-A63 and CO-A64 before the issuance of permits that may require

redesigning the site to avoid the paleontological resource, capping the paleontological resource site to avoid impacts, or properly removing and curating the resource. This section also requires protection of paleontological resources discovered during construction. This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact GEO-4: Result in the Loss of Availability of a Known Mineral Resource or Locally Important Mineral Resource Recovery Site

Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in cannabis uses that are located in the mineral resource zones associated with the CCAP. However, cannabis uses would be small in size and would not substantially obstruct access to mineral resources in the County. This impact would be **less than significant** for all alternatives.

As shown in Exhibit 3.7-4, the state has mapped approximately 20,000 acres of significant aggregate resources along lower Cache Creek. Aggregate mining in the County is regulated through the CCAP, which includes the OCMP. Approximately 180 million tons of aggregate have been approved for excavation and approximately 72 million tons of aggregate have actually been excavated from 1996 through 2015 (Yolo County 2019). General Plan Policy CO-3.1 supports the continued production of mineral resources. CCAP Objective 2.3-1 identifies the economic significance of aggregate deposits along Cache Creek and Objective 2.3-2 discourages encroachment of incompatible land uses into areas designated for future surface mining.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As shown in Exhibit 3.7-15, there are four existing cultivation sites within the boundary of the CCAP. Alternative 1 would retain the current extent of 78 existing and eligible cultivation sites in the County with no further expansion of cannabis uses. Three of these sites are outdoor cultivation, while the third site is a combination of outdoor and indoor cultivation operations. None of these sites are located on parcels that are identified for future planned or proposed aggregate mining areas (Yolo County 2019: Figure 3-4). These sites are assumed to consist of approximately 6 acres committed to cannabis cultivation operations (see Appendix D) and would not substantially obstruct continued aggregate mining of the 20,000-acre CCAP area. This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 3.7-16, Alternative 2 assumes one new cannabis use within the CCAP that would be located outside of future planned and proposed aggregate mining areas (Yolo County 2019: Figure 3-4), in addition to the existing three cultivation sites identified in Alternative 1, above, for a total of 7 acres committed to cannabis uses in the CCAP (see Table 2-4 and Appendix D for cannabis footprint assumptions). This extent of cannabis use would not substantially obstruct continued aggregate mining of the 20,000-acre CCAP area. This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 3.7-17, Alternative 3 assumes five new cannabis uses within the CCAP that would be located outside of future planned and proposed aggregate mining areas (Yolo County 2019: Figure 3-4) in addition to the existing three cultivation sites for a total of 12 acres committed to cannabis uses in the CCAP (see Table 2-4 and Appendix D for cannabis footprint assumptions). This extent of cannabis use would not substantially obstruct continued aggregate mining of the 20,000-acre CCAP area. This impact would be **less than significant** under Alternative 3.

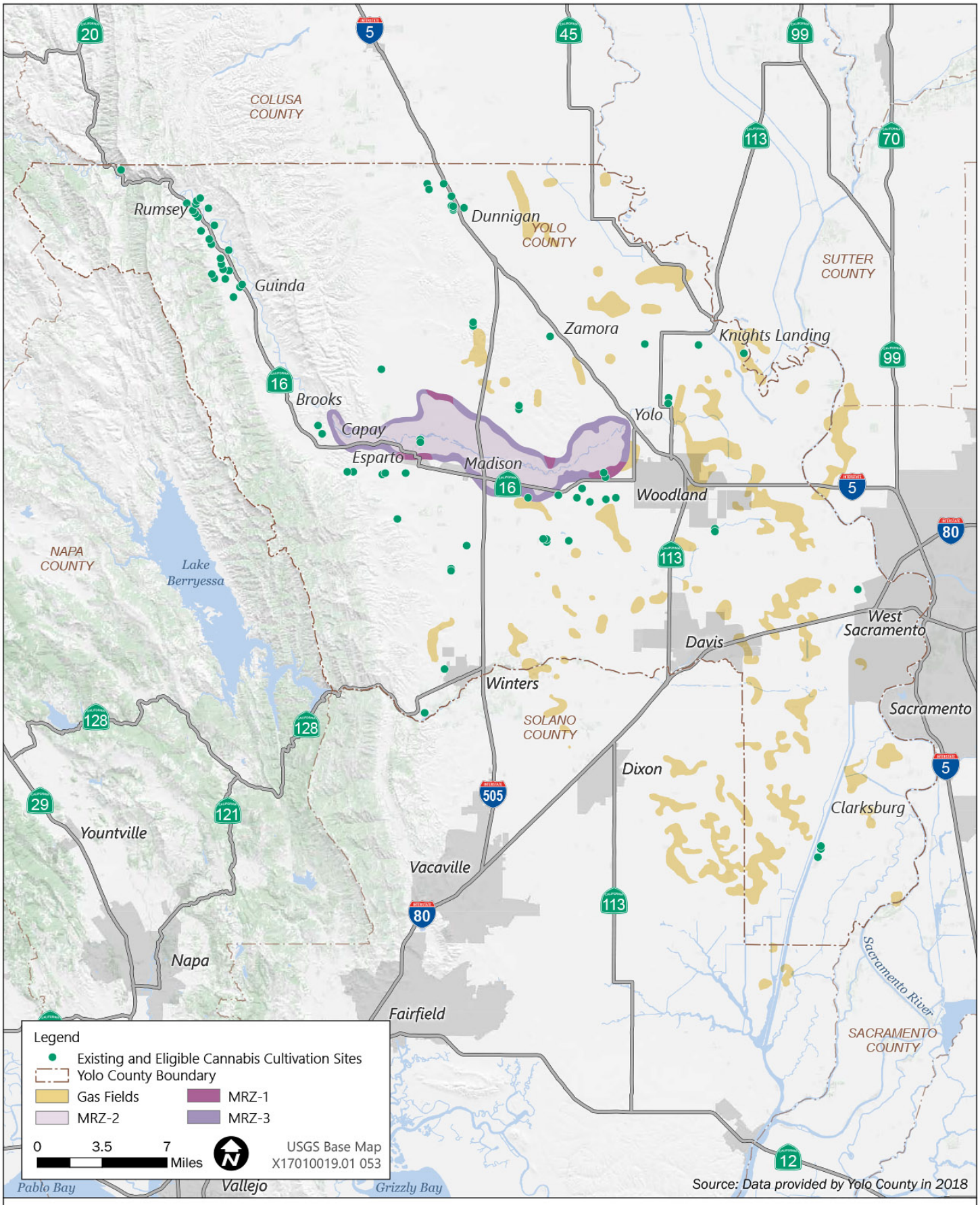


Exhibit 3.7-15 **Alternative 1 Cannabis Uses and Mineral and Gas Resources**

ASCENT ENVIRONMENTAL

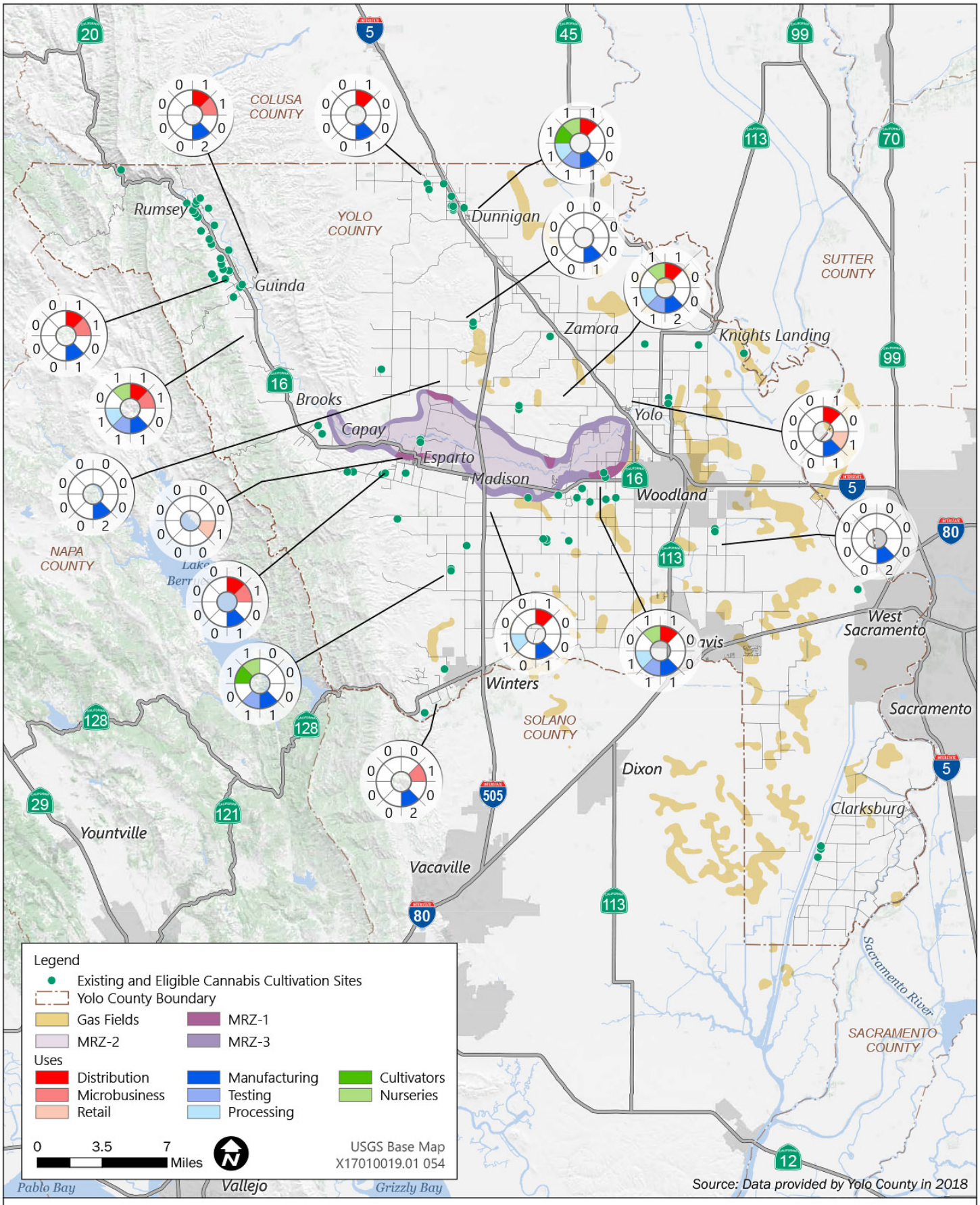


Exhibit 3.7-16 **Alternative 2 Cannabis Uses and Mineral and Gas Resources**

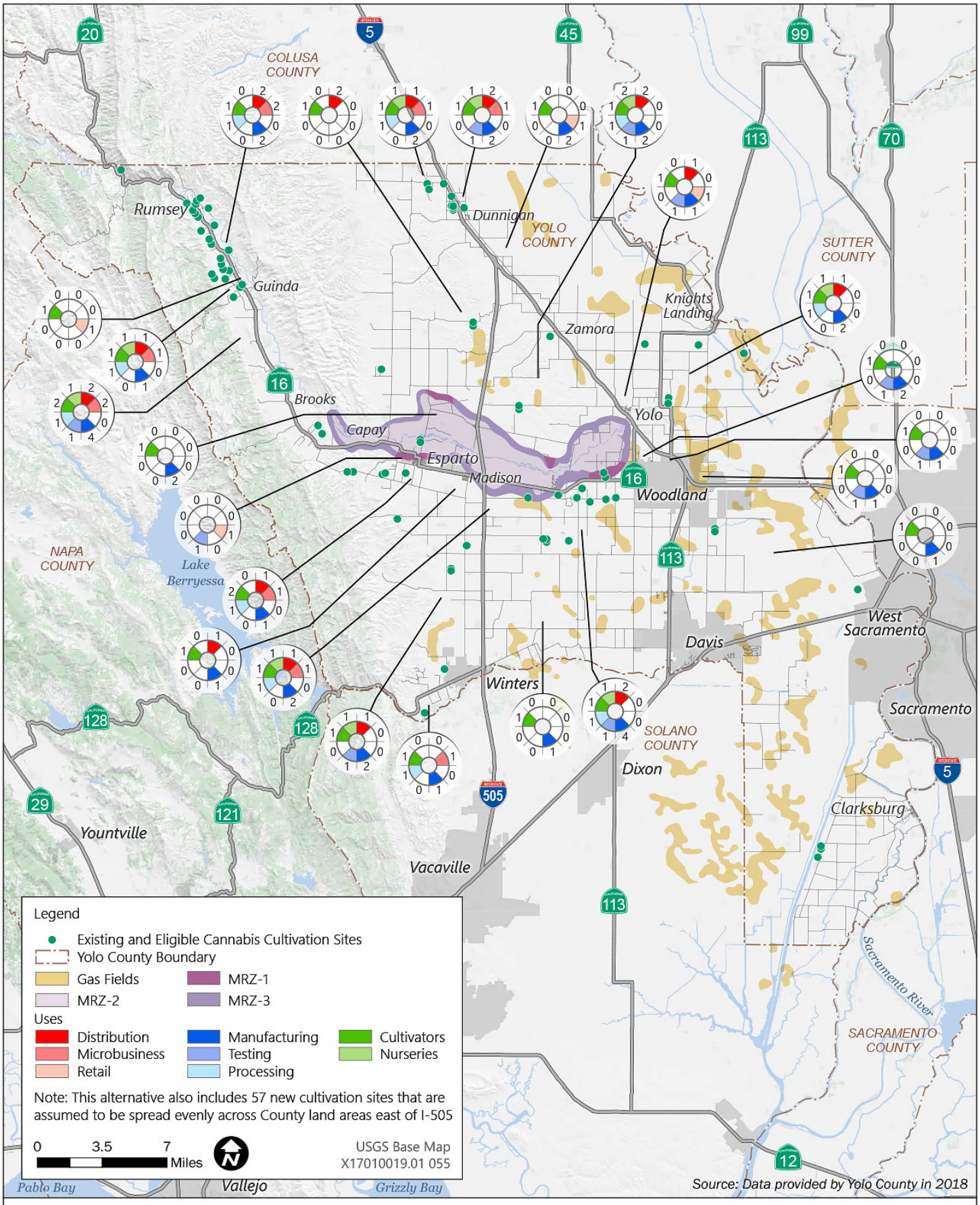


Exhibit 3.7-17 **Alternative 3 Cannabis Uses and Mineral and Gas Resources**

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 3.7-18, Alternative 4 assumes two new cannabis use within the CCAP that would be located outside of future planned and proposed aggregate mining areas (Yolo County 2019: Figure 3-4) in addition to the existing three cultivation sites for a total of 8 acres committed to cannabis uses in the CCAP (see Table 2-4 and Appendix D for cannabis footprint assumptions). This alternative would require the existing three cultivation sites to convert to mixed-light or indoor cultivation that would require the construction of greenhouses or indoor buildings. This extent of cannabis use would not substantially obstruct continued aggregate mining of the 20,000-acre CCAP area. This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 3.7-19, Alternative 5 assumes the retention of the existing three cultivation sites (6 acres of cannabis uses) and no new cannabis uses in the CCAP area. This extent of cannabis use would not substantially obstruct continued aggregate mining of the 20,000-acre CCAP area. This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

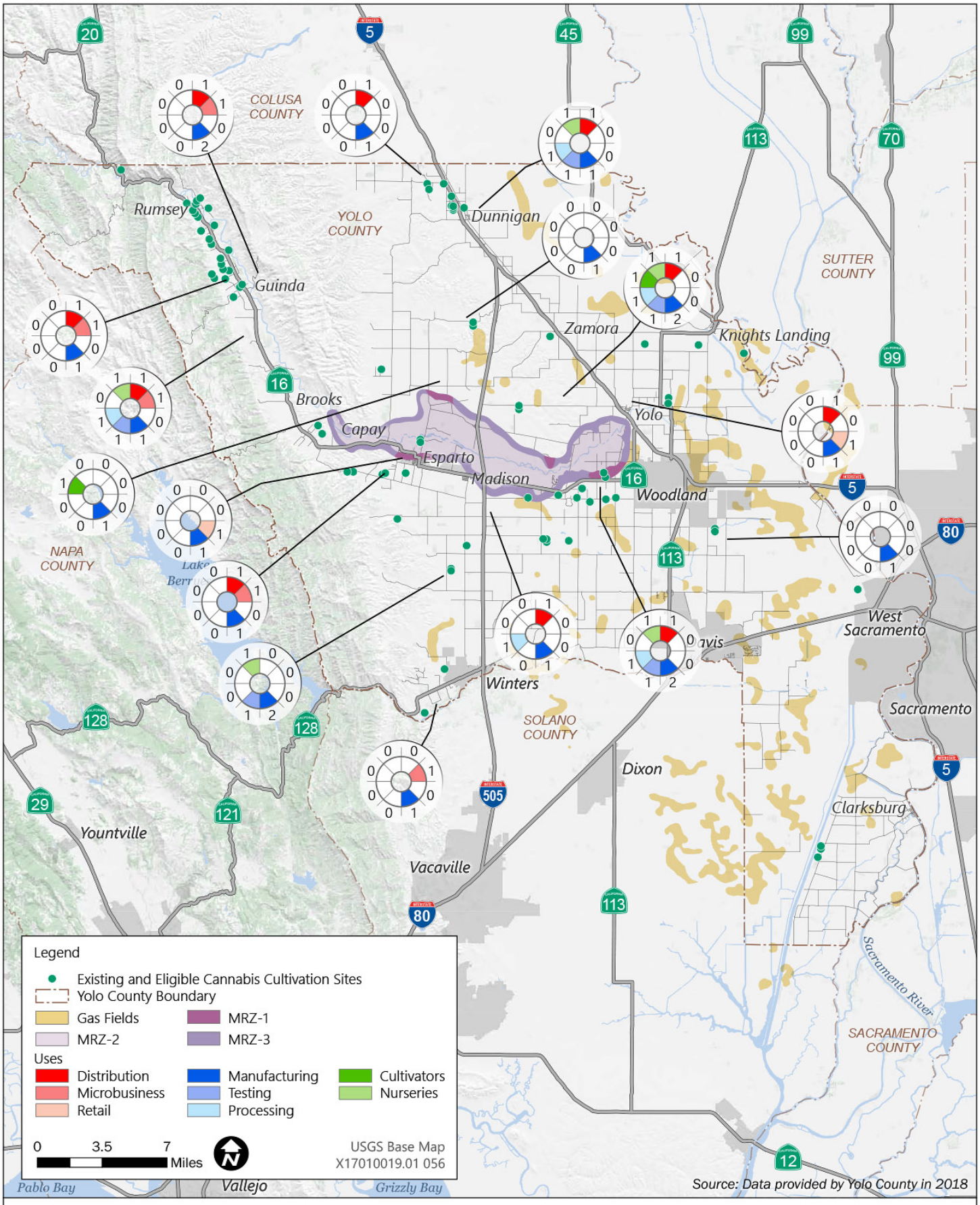


Exhibit 3.7-18 **Alternative 4 Cannabis Uses and Mineral and Gas Resources**

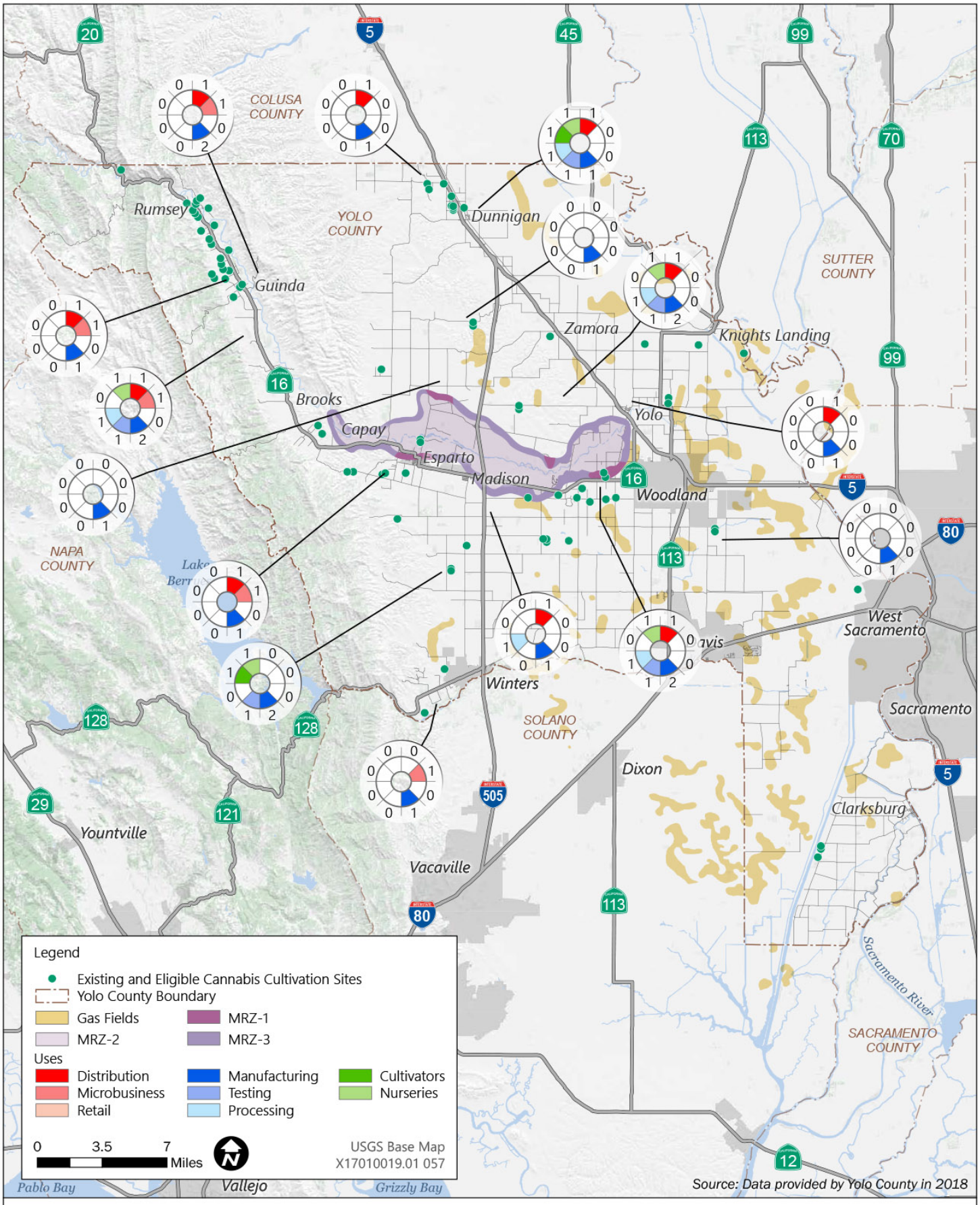


Exhibit 3.7-19 **Alternative 5 Cannabis Uses and Mineral and Gas Resources**

3.8 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of project-generated GHG emissions and discussion about their contribution to global climate change. The analysis considers whether adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in impacts to GHG emissions and global climate change. Energy impacts of the project are evaluated in Section 3.6, "Energy."

Comments on the NOP were received from residents, regarding GHG impacts from implementation of the CLUO. This issue is considered below. The reader is referred to Appendix A for comments received on the NOP.

3.8.1 Environmental Setting

THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the lifetime of any GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known, but is enormous; no single development project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

GHG emissions are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2014). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB 2014). Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere.

As further discussed in Section 3.8.2, "Regulatory Setting," Yolo County adopted its Climate Action Plan (CAP) on March 15, 2011. Table 3.8-1 summarizes GHG emissions under the CAP.

Table 3.8-1 Unincorporated Yolo County GHG Emissions Inventory for 2008 and Building-as-Usual Forecast Years ($MTCO_2e$)

Emissions Sector	2008	2020	2030	2040	2050
Agriculture	297,341	289,482	281,624	281,624	281,624
Transportation	105,253	285,492	465,731	510,677	554,733
Energy	181,447	404,929	628,444	689,093	748,757
Solid Waste	6,871	12,660	18,449	20,230	21,975
Wastewater	974	974	709	709	709
Total	651,740	993,537	1,394,957	1,502,332	1,607,798

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent.

Complied by Ascent Environmental 2019

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 1.5 degrees Celsius (°C) (2.7 degrees Fahrenheit [°F]) by 2040 (IPCC 2018). According to *California's Fourth Climate Change Assessment*, with GHGs reduced at a moderate rate then California will experience average daily high temperatures that are warmer than the historic average by 2.5°F from 2006 to 2039, by 4.4°F from 2040 to 2069, and by 5.6°F from 2070 to 2100. However, if GHG emissions continue at current rates then California will experience average daily high temperatures that are warmer than the historic average by 2.7°F from 2006 to 2039, by 5.8°F from 2040 to 2069, and by 8.8°F from 2070 to 2100 (OPR, CEC, and CNRA 2018:5).

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012-2016, an almost non-existent Sierra Nevada winter snowpack in 2014-2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR, CEC, and CNRA 2018:3). According to the California Natural Resources Agency's (CNRA's) *Safeguarding California Plan: 2018 Update,* California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014, respectively (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow

into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR, CEC, and CNRA 2018:6). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018:64, 116–117, 127; OPR, CEC, and CNRA 2018:7–14).

Cal-Adapt is a climate change scenario planning tool developed by the California Energy Commission (CEC) that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a lower GHG emissions future. According to Cal-Adapt, annual average precipitation in Yolo County is projected to increase by 3 to 5.7 inches by 2099, with the range based on low and high emissions scenarios (CEC 2018a). At the same time, annual average temperatures in Yolo County are projected to rise by 5.6 to 8.5°F by 2099, under the same emissions scenarios (CEC 2018a).

3.8.2 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.,* 549 U.S. 497 (2007), the Supreme Court of the United States ruled that CO_2 is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the federal Clean Air Act.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 FR 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, the U.S. Department of Transportation (DOT) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light trucks, and retaining the current model year 2020 standards through model year 2026, establish new standards covering model years 2021 through 2026. Vehicles operating in the County would be subject to the CAFE standards. However, at the time of writing this Draft EIR, the SAFE Rule has not been formally adopted by EPA, and 17 states—including California—have filed a lawsuit against EPA. The timing for ultimate approval of the SAFE Rule and the outcome of any pending or potential lawsuits (and how such could delay or affect its implementation) are unknown at this time. The SAFE Rule's impact on future motor vehicle emissions is also unknown.

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy (ACE) rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to the EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO_2 emission reductions though heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO_2 generated from coal-fired EGUs (EPA 2019).

STATE

California Environmental Quality Act

CEQA requires lead agencies to consider the effects of their actions on climate change through analyzing a project's potential to emit GHGs. SB 97 of 2007 acknowledged that GHG emissions and directed the Governor's Office of Planning and Research (OPR) to address GHG emissions in CEQA analyses (PRC Section 21083.05). OPR adopted amendments to the State CEQA Guidelines in 2009 to address analysis and mitigation of the potential effects of GHG emissions in CEQA documents in Section 15064.4. The State CEQA Guidelines were also updated to include tiering streamlining provisions for the evaluation of GHG emissions when evaluated at a programmatic level as well as when a public agency has adopted a plan for the reduction of GHG emissions.

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been a focus of state policy for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other state agencies are currently developing a Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18.

The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Cap-and-Trade Program

CARB administers the state's cap-and-trade program, which covers GHG emission sources that emit more than 25,000 metric tons of CO_2 equivalent per year, such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. In addition, the program's zero-emission vehicle regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016a:15). By 2025, when the rules will be fully implemented, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million zero-emission vehicles on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric–charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California's transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed legislation to address the amount of driving by on-road vehicles. Since passage of SB 375 (Chapter 728, Statutes of 2008), CARB requires metropolitan planning organizations to adopt plans showing reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035 (CARB 2018:1). These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the metropolitan planning organization for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Bain. SACOG adopted its Metropolitan Transportation Plan/Sustainable Communities Strategy 2035 in 2012, and completed an update adopted in February 2016. SACOG was tasked by CARB to achieve a 7-percent per capita reduction compared to 2012 emissions by 2020 and a 16-percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2013). In March 2018, CARB adopted the Target Update for the SB 375 targets tasking SACOG to achieve a 7-percent and a 19-percent per capita reduction by 2020 and 2035, respectively (CARB 2018).

SB 743 (Chapter 386, Statutes of 2013) required that OPR propose changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and other areas of the state. In response, Section 15064.3 was added to CEQA Guidelines in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). Agencies have until July 1, 2020, to implement these changes but can also choose to implement these changes immediately. In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA,* which recommends that the transportation impact of a project be based on whether the project would generate a level of VMT per capita (or VMT per employee or some other metric) that is 15 percent lower than that of existing development in the region (OPR 2017:12–13), or that a different threshold is used based on substantial evidence. OPR's technical advisory explains that this criterion is consistent with PRC Section 21099, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions" (OPR 2017:18). This metric is intended to replace the use of delay and level of service to measure transportation-related impacts. More detail about SB 743 is provided in the "Regulatory Setting" Section 3.14, "Transportation and Circulation."

Laws Associated with Electricity Generation

The state has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The 2019 California Energy Code, which goes into effect January 1, 2020, will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. Additionally, new residential units will be required to include solar panels, sized to offset the estimated electrical requirements of each unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. The CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018b).

Medicinal and Adult-Use Cannabis Regulation and Safety Act

In June 2016, the Medicinal and Adult-Use Cannabis Regulation and Safety Act was signed into law, creating one regulatory system for both medicinal and adult-use cannabis. The three cannabis licensing authorities (i.e., California Department of Food and Agriculture's CalCannabis Cultivation Licensing program, the California Department of Consumer Affairs' Bureau of Cannabis Control, and the California Department of Public Health) drafted emergency regulations (CCR Title 3, Division 8, Chapter 1) that were released on November 6, 2017. The following regulations apply to GHG emissions and energy consumption:

- Section 8203. Renewal of License. Section G. Beginning January 1, 2022, an application for renewal of a license shall include the following records for each power source indicated on the application for licensure for the previous annual licensed period:

    1. Total electricity supplied by local utility provider, name of local utility provider, and greenhouse gas emission intensity (i.e., the amount of GHGs emitted) per kilowatt hour reported by the utility provider under Section 398.4(c) of the Public Utilities Code for the most recent calendar year available at time of submission;

    2. Total electricity supplied by a zero net energy renewable source, as set forth in Section 398.4(h)(5) of the Public Utilities Code, that is not part of a net metering or other utility benefit;

    3. Total electricity supplied from other unspecified sources, as defined in 398.2(e) of the Public Utilities Code, and other on-site sources of generation not reported to the local utility provider (e.g., generators, fuel cells) and the greenhouse gas emission intensity from these sources; and

    4. Average weighted greenhouse gas emission intensity considering all electricity use in Subsections (1), (2), and (3).

- Section 8305. Renewable Energy Requirements. Beginning January 1, 2023, all indoor, tier 2 mixed-light license types of all sizes, and nurseries using indoor or tier 2 mixed-light techniques, shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program, Division 1, Part 1, Chapter 2.3, Article 16 (commencing with Section 399.11) of the Public Utilities Code. As evidence of meeting the standard, licensees shall comply with the following:

    (a) If a licensee's average weighted greenhouse gas emission intensity as provided in Section 8203(g)(4) is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall provide evidence of carbon offsets from any of the following sources to cover the excess in carbon emissions from the previous annual licensed period:

        (1) Voluntary greenhouse gas offset credits purchased from any of the following recognized and reputable voluntary carbon registries:

            (A) American Carbon Registry;
            (B) Climate Action Reserve;
            (C) Verified Carbon Standard.

        (2) Offsets purchased from any other source are subject to verification and approval by the Department.

    (b) New licensees, without a record of weighted greenhouse gas emissions intensity from the previous calendar year, shall report the average weighted greenhouse gas emissions intensity, as provided in Section 8203(g)(4), used during their licensed period at the time of license renewal. If a licensee's average weighted greenhouse gas emissions intensity is greater than the local utility provider's greenhouse gas emissions intensity for the most recent calendar year, the licensee shall provide evidence of carbon offsets or allowances to cover the excess in carbon emissions from any of the sources provided in Subsection (a).

LOCAL

Yolo-Solano Air Quality Management District

The Yolo-Solano Air Quality Management District's (YSAQMD's) CEQA handbook and website currently recommends that GHG emissions and impacts to climate change be evaluated for every CEQA project (YSAQMD 2007:24,25; 2016). YSAQMD's website recommends resources from the California Air Pollution Control Officers Association to evaluate project-level GHG emissions. YSAQMD has not adopted project- or plan-level thresholds to be used for CEQA evaluations at the time of writing of this EIR.

Yolo County

Yolo County 2030 Countywide General Plan

The Yolo County 2030 Countywide General Plan (General Plan) includes the following policies related to GHG emissions and climate change (Yolo County 2009):

- **Policy CC-2.3:** Include open space corridors and trails throughout each community to provide off-street bicycle and pedestrian access, as well as connections to intra-county corridors and trails.

- **Policy CC-2.7:** Provide for higher density housing and mixed-use development in the downtown areas of the unincorporated communities to support commercial uses, create more pedestrian travel, extend activity into the evening, increase the variety of housing opportunities to include affordable and special needs housing, enhance safety, reduce traffic and support regular, frequent fixed-route transit service.

- **Policy CC-4.1:** Reduce dependence upon fossil fuels, extracted underground metals, minerals and other non-renewable resources by:

    - Requiring projects to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.

    - Encouraging projects to use regenerative energy heating and cooling source alternatives to fossil fuels.

    - Encouraging projects to select building materials that require less energy-intensive production methods and long-distance transport, in compliance with Leadership in Energy and Environmental Design (LEED) or equivalent standards.

- **Policy CC-4.3:** Reduce activities that encroach upon nature, through:

    - Reuse of existing buildings and sites for development.

    - Compact and clustered residential development, including reduced minimum lot sizes.

    - Reduction or elimination of impervious paving materials.

    - Development patterns that respect natural systems such as watersheds and wildlife corridors.

- **Policy CC-4.4:** Encourage all new construction to be zero net energy by combining building energy efficiency design features with on-site clean distributed generation so as to result in no net purchases from the electricity or gas grid.

- **Policy CC-4.5:** Encourage individual and community-based wind and solar energy systems (micro-grids).

- **Policy CC-4.6:** Encourage all new residences to exceed Title 24 energy standards by at least 15 percent, and encourage all new commercial buildings to exceed Title 24 by at least 20 percent.

- **Policy CC-4.7:** Require energy efficiency design for all buildings.

- **Policy CC-4.8:** Require measures to minimize "heat islands" by requiring light-colored and reflective roofing materials and paint; "green" roofs; light colored roads and parking lots; extensive numbers of shade trees in parking lots; and shade trees and/or overhangs on the south and west sides of new or renovated buildings.

- **Policy CC-4.9:** Encourage construction and other heavy equipment vehicles (e.g., mining, agriculture, etc.) to use retrofit control devices.

- **Policy CC-4.12:** Require "green" design, construction and operation including:

  A. Site planning sensitive to the natural environment.

  B. Efficiency in resource use (including energy, water, raw materials and land).

  C. Building reuse and adaptive reuse.

  D. Selection of materials and products based on their life-cycle environmental impacts.

  E. Use of materials and products with recycled content.

  F. Use of materials provided from within the region.

  G. Recycling of construction and demolition waste.

  H. Reduction in the use of toxic and harmful substances in the manufacturing of materials and during construction.

  I. Use of passive and active solar strategies and efficient heating and cooling technologies.

  K. Reduction in water use for buildings and landscaping.

  L. Light pollution reduction to protect "dark skies."

  M. Improvements to interior and exterior environments leading to increased health, comfort and productivity.

  N. Facility maintenance and operational practices that reduce or eliminate harmful effects on people and the natural environment during occupancy.

  O. Water reuse systems.

  P. Other systems to capture energy sources that would otherwise be wasted.

- **Policy CI-1.3:** Reduce the total vehicle miles traveled per household by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of "smart growth" and sustainable planning principles.

- **Policy CI-2.1:** When constructing or modifying roadways, plan for use of the roadway space by all users, including automobiles, trucks, alternative energy vehicles, agricultural equipment, transit, bicyclists, and pedestrians, as appropriate to the road classification and surrounding land uses.

- **Policy CI-2.2:** Encourage employers (including the County) to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking for carpools/vanpools.

- **Policy CI-2.3:** Ensure that, wherever feasible, public transit and alternative mode choices are a viable and attractive alternative to the use of single-occupant motor vehicles.

- **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 as applicable.

- **Policy CI-3.15:** Provide for greater street connectivity and efficient movement of all transportation modes.

- **Policy CI-4.2:** Support regional air quality and greenhouse gas objectives through effective management of the County's transportation system.

- **Policy CI-4.3:** Reduce dependence upon fossil fuels through:

    - Reduction of vehicle trips and vehicle miles traveled by requiring compact, infill and mixed use development.

    - Use of alternatives to the drive-alone automobile, including walking, bicycling and public transit.

    - Use of vehicles powered by renewable/alterantive fuel sources.

    - Local street designs that encourage pedestrian and bicycle use and discourage high speed traffic.

    - Street designs that support/enhance access between neighborhoods and to neighborhood-based commercial developments.

    - Promotion of ride sharing and car sharing programs.

    - Encourage development of the infrastructure necessary to support clean alternative fuel vehicles and electric vehicles.

    - Emerging technologies related to goods movement activities at truck stops, loading terminals, airports and rail facilities.

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

- **Policy CI-5.1:** Work with local and regional agencies to implement a regional bikeway and/or alternative energy vehicle system that connect the cities, larger unincorporated communities and scenic areas.

- **Policy CI-5.2:** Create a complete bikeway and sidewalk system within each community, including the completion of existing systems. Create walkways and bikeways that connect existing paths where feasible, and that connect to grocery stores, parks, and other community features.

- **Policy CI-5.5:** Integrate bicycle, pedestrian and transit facilities into new developments.

- **Policy CI-5.12:** Support development of facilities that link bicyclists and pedestrians with other modes of transportation.

- **Policy CI-6.2:** Require new development to situate transit stops and hubs at locations that are convenient and accessible to transit users based on coordination with Yolo County Transportation District (YCTD).

- **Policy CI-6.5:** Integrate transit stops into new residential and employment center developments.
- **Policy CI-6.7:** Support multi-modal stations at appropriate locations to integrate transit with other transportation modes.
- **Policy CI-6.11:** Require new development to include design elements that promote transit use.
- **Policy PF-5.8:** Anticipate and adapt to potential changes in frequency and severity of wildfires resulting from predicted effects of global warming.
- **Policy PF-9.1:** Meet or exceed State waste diversion requirements.
- **Policy PF-9.8:** Require salvage, reuse or recycling of construction and demolition materials and debris at all construction sites.
- **Policy PF-9.9:** Encourage use of salvaged and recycled materials in construction.
- **Policy CC-4.11**: Site specific information shall be required for each application, subject to site conditions and available technical information, as determined by the County lead department, in order to enable informed decision-making and ensure consistency with the General Plan and with the assumptions of the General Plan EIR. Technical information and surveys requested may include, but not be limited to, the following: air quality and/or greenhouse gas emissions calculations, agricultural resource assessment/agricultural and evaluation and site assessment (LESA), biological resources assessment, cultural resources assessment, fiscal impact analysis, flood risk analysis, hydrology and water quality analysis, geotechnical/soils study, land use compatibility analysis, noise analysis, Phase One environmental site assessment, sewer capacity and service analysis, storm drainage capacity and service analysis, title report, traffic and circulation study, visual simulation and lighting study, and water supply assessment.

  When a technical study is required, it must cover the entire acreage upon which development is being proposed including any off-site improvements (e.g., wells; pumps; force mains; new roads; dirt borrow sites; etc.) that may be necessary. Technical studies must meet CEQA standards and the standards in the applicable industry. As necessary, the technical studies shall include recommendations that are to be implemented as part of the project.
- **Policy CO-6.1:** Improve air quality through land use planning decisions.
- **Policy CO-6.3:** Encourage employers to increase telecommuting, telepresence, provide bicycle facilities, and enhance access to public transit for employees.
- **Policy CO-6.6:** Encourage implementation of YSAQMD Best Management Practices, such as those that reduce emissions and control dust during construction activities.
- **Policy CO-7.3:** Require all projects to incorporate energy-conserving design, construction, and operation techniques and features into all aspects of the project including buildings, roofs, pavement, and landscaping.
- **Policy CO-7.4:** Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, where feasible.
- **Policy CO-7.5:** Require all new parking lots to significantly increase shading to relieve the potential for "heat islands."

- **Policy CO-7.6:** Encourage the use of building materials and methods that increase energy efficiency by a minimum of 15 percent beyond State Title 24 standards for residential buildings and 20 percent beyond State Title 24 standards for commercial buildings.

- **Policy CO-7.7:** Support farmers and landowners in their efforts to maximize the efficiency of agricultural end uses.

- **Policy CO-7.9:** Require that new site and structure designs maximize energy efficiency.

- **Policy CO-7.11:** Strongly encourage LEED certification or equivalent for all public, private and existing buildings and strongly encourage LEED-Neighborhood Design certification or equivalent for other applicable projects, particularly within the Specific Plan areas.

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

- **Policy CO-8.3:** Implement those strategies as described in the adopted Climate Action Plan to adapt to climate change based on sound scientific understanding of the potential impacts.

Yolo County Climate Action Plan

Yolo County adopted its Climate Action Plan (CAP) on March 15, 2011. The Countywide GHG Emissions inventory for 2016 was updated in October of 2018 (Ascent 2018). The CAP commits the County to reducing GHG emissions to 1990 levels by 2020, 27 percent below 1990 levels by 2030, 53 percent below 1990 levels by 2040, and 80 percent below 1990 levels by 2050. The 2011 CAP satisfied the requirements of General Plan, Action CO-A117, which called for the County to create a GHG Emissions Reduction Plan and/or CAP. There are several GHG reduction measures in the CAP that are relevant to the project. The following measures apply to cannabis cultivation uses:

- **Measure A-1:** Reduce nitrogen fertilizer application rates.

- **Measure A-2:** Reduce fossil fuel consumption in field equipment.

- **Measure A-3:** Reduce energy use in agricultural irrigation pumping.

- **Measure A-6**: Sequester carbon in agricultural landscapes.

- **Supporting Measures for Agriculture:** Increase use of biofuels or low-carbon fuels in field equipment; reduce agricultural water use through alternative irrigation techniques.

- **Measure E-5:** Promote on-farm renewable energy facilities.

- **Supporting Measures for Solid Waste and Wastewater:** Reduce disposal of organic materials.

Additionally, the following measures apply to all cannabis uses:

- **Measure E-2:** Reduce energy consumption in existing non-residential units.

- **Measure E-3:** Reduce energy consumption in new non-residential units.

- **Measure E-4:** Increase on-site renewable energy generation to reduce demand for grid energy.

- **Measure E-6:** Reduce water consumption in existing buildings through increased plumbing fixture efficiency.

- **Measure E-7:** Promote weather-based irrigation systems and water efficient turf management.

- **Supporting Measures for Energy:** Energy efficient appliances, lighting, and equipment in existing buildings; require energy efficient appliances, equipment, and lighting in new construction; promote greywater and rainwater collection and non-potable water systems.

- **Supporting Measures for Solid Waste and Wastewater:** Reduce waste emissions from organic materials.

Cool Counties Climate Stabilization Program

On September 11, 2007, Yolo County joined the Cool Counties Climate Stabilization Program. Under this program, Yolo County works with regional jurisdictions to achieve a fair-share reduction in regional GHG emissions of 80 percent by the year 2050. To achieve this goal, Yolo County has committed to the following: developing a GHG emissions inventory, adopting proactive short-, mid-, and long-term GHG reduction goals, and urging Congress to enact more stringent GHG regulations.

3.8.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

Under CEQA, GHG emissions and their contribution to global climate change are inherently cumulative. To that end, an individual project participates in this potential impact by its incremental contribution, combined with the cumulative contributions of all other sources of GHG, which, when taken together, cause potential global climate change impacts. Therefore, the cumulative global climate change analysis presented in this section of the EIR evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts to climate change. This program-level analysis is based upon current estimates of GHG emissions in Yolo County (see Table 3.8-1) and emissions modeling tools available from the California Air Pollution Control Officers Association. The activity footprint and design of site-specific cannabis uses assumed under each of the five alternatives based on Table 2-4, Exhibits 2-4 through 2-8, and Appendix D to provide an assessment and comparison of reasonably foreseeable outcomes from different regulatory scenarios.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

Construction activities that generate GHG emissions are assumed for each alternative to take place within the entire activity footprint of cannabis cultivation sites and noncultivation sites as identified in Table 2-4 and Appendix D. Details about the extent of site relocation under each alternative due to compliance with zoning and buffer standards under the CLUO is included in Appendix D. The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate GHG emissions associated with the construction and operation of the types of indoor, outdoor, mixed-light, and noncultivation sites that could be approved under the CLUO, including size limits and default values in CalEEMod based on the climatic conditions in the County. Construction-related emissions were estimated for individual license types. Refer to Appendix E for details about construction assumptions.

Operation of cannabis uses were based on assumptions provided in Appendix D. CalEEMod was also used to estimate operational GHG emissions associated with landscaping equipment, fertilizer use, and paint for paved parking lots; electricity consumption, including water consumption; off-road equipment, and the generation of solid waste. The application of paint for parking lots would result in off-gassing of ROG emissions from the painting of stripes, handicap symbols, directional arrows, and car space descriptions. Paved parking lots that would include painting were assumed for only noncultivation sites. It was assumed that all cultivation and noncultivation licenses would be permitted by 2021, representing a conservative estimate that all license types would be fully operational by 2022 for Alternatives 1, 2, 4, and 5. For Alternative 3, it was assumed that all cultivation and noncultivation licenses would be fully operational by 2023. CalEEMod default energy consumption rates were adjusted to account for the energy efficiency

improvements required by the 2019 California Energy Code, which would result in a 30-percent reduction in energy consumption compared with the 2016 California Energy Code that is included in CalEEMod. The CLUO requires the procurement of at least 50-percent renewable energy for all sites permitted (Section 8-2.1408[O]) and this requirement was applied to energy consumption modeled in CalEEMod.

Assumed off-road equipment includes the use of a utility vehicle for outdoor and mixed-light cultivation sites, and a forklift for noncultivation sites. Back-up diesel generators were also assumed to be used at all mixed-light and indoor cultivation sites. Current GHG emissions associated with existing agricultural uses were also estimated and subtracted from the operational emissions associated with cultivation sites. A weighted average based on existing types of agricultural uses in the County was calculated based on the 2016 GHG emissions inventory prepared for the County.

For mixed-light and indoor cultivation sites, the amount of CO_2 that may be injected into the cannabis plants to increase growth was quantified based on the amount of CO_2 needed to yield cannabis, and the amount of space needed to cultivate plants indoors. These factors were derived from cultivation studies (Mills 2012; Caulkins et al. n.d.).

GHG emissions associated with construction and operation of cultivation and noncultivation sites under the CLUO were evaluated for consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions. These include the Yolo County CAP and the 2017 Scoping Plan. The Yolo County CAP includes GHG emission reduction targets for 2020, 2030, 2040, and 2050 with reduction measures able to close the gap necessary to meet the targets through 2030 but not for 2040 or 2050. The CAP was developed to satisfy the requirements of Section 15183.5(b) of the State CEQA Guidelines, which provides a tiering benefit for GHG analyses. Specifically, the CAP includes quantification of existing and projected GHG emissions for the unincorporated County area through 2050; identification of a 2020 GHG reduction target consistent with AB 32 and goals for 2030, 2040, and 2050; inclusion of GHG emissions associated with General Plan buildout; provision of substantial evidence that demonstrates implementation of GHG reduction measures; and inclusion of a monitoring program to track progress toward meeting GHG reduction targets and goals.

This approach is consistent with one of the pathways to compliance presented in the California Supreme Court (Court) ruling, *Center for Biological Diversity v. California Department of Fish and Wildlife.* The Court identified three pathways to evaluate the cumulative significance of a proposed land use development. One pathway suggests looking at compliance with regulatory programs designed to reduce GHG emissions from particular activities, especially regarding the goals of AB (and now SB) 32.

THRESHOLDS OF SIGNIFICANCE

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

For the purposes of this analysis, as described in "Methodology" above, the project's potential to result in a cumulatively considerable contribution to climate change would occur if the project conflicted with any applicable plan, policy or regulation of an agency adopted for the purposes of reducing GHG emissions. In this instance, the two plans with which that the project would need to demonstrate consistency are the Yolo County CAP and the 2017 Scoping Plan.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact GHG-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with Plan or Policies Adopted to Reduce Emissions of Greenhouse Gases

Construction and operation of commercial cannabis cultivation and noncultivation sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would result in the generation of GHG emissions. The CLUO would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans. For example, the cultivation sites permitted under the CLUO would be required be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping. Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for all alternatives.

Construction-related GHGs would be emitted by construction equipment, haul trucks transporting equipment and materials, and commute trips by construction workers. Operation of commercial cannabis cultivation sites would generate GHG emissions from area sources, energy consumption, water consumption, and wastewater and waste generation. During operation of cultivation sites, GHGs would be emitted by electricity and natural gas that supply power for well pumps and grow lights, as well as the generation of solid waste and wastewater. Use of on-site equipment such as a utility vehicle or back-up generator would also generate GHG emissions.

The CLUO includes the following requirements that address GHG emissions through energy use for cultivation and noncultivation uses:

- Section 8-2.1408(F) Building Design: Design and construction of buildings and structures shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, environmental controls (including temperature, humidity, and ventilation), safety and security, lighting, aesthetics, energy use, and other appropriate impact mitigation. Design, materials, and general appearance must be compatible with the character and scale of what is allowed in the applicable zone.

- Section 8-2.1408(O) Energy Use: Permittees shall demonstrate availability of adequate energy, and compliance with applicable local and regional energy saving goals. Permittees shall demonstrate use of energy efficient best practices for each proposed use type. Onsite generation of energy from clean and/or renewable sources is encouraged. Permittees shall purchase or generate a minimum of 50 percent renewable power through the Valley Clean Energy Alliance or other available energy purveyor. CDFA licensees must satisfy the requirements of Section 8305, Renewable Energy Requirements, of the CDFA Regulations (effective January 1, 2023).

- Section 8-2.1408(Z) Lighting: All exterior lighting shall be operational, full cut-off, shielded, and downward facing. Lighting shall not spill over onto other properties, structures, or the night sky. Lighting inside indoor and mixed light operations shall be fully controlled so that minimal or no light escapes. Lighting is prohibited in hoop houses. CDFA licensees must comply with Section 8304(c) of the CDFA Regulations. All lighting for indoor/enclosed spaces shall utilize LED bulbs, or equivalent or more efficient technology. Mixed light use types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare, pursuant to Section 8304(g) of the CDFA Regulations.

The above requirements would reduce energy-related GHG emissions associated with not only new cultivation and noncultivation sites, but also existing cultivation sites that would seek permitting under the CLUO that would need to demonstrate compliance with this requirement. This provision is consistent with policy provisions in the General Plan (Policies CC-4.4, CC-4.5, CC-4.7. CC-4.12, and CO-7.9), as well as the Yolo County CAP (Measure E-4). Incorporation of this renewable requirement would be consistent with goals and recommendations included in the 2017 Scoping Plan.

All buildings constructed under the CLUO, associated with either new or relocated sites, would be built to the California Energy Code in effect at the time of construction. As discussed under Section 3.8.2, "Regulatory Setting," above, the 2019 California Energy Code would reduce energy consumption by 30 percent when compared to the 2016 standards. This would be consistent with the Yolo County CAP (Measure E-3). All indoor spaces used for cultivation and noncultivation would use light-emitting diode (LED) lighting or a more efficient lighting technology pursuant to Section 8-2.1408(Z) of the CLUO. This requirement would apply to existing buildings as well as those constructed under the project. The use of energy-efficient lighting in all project buildings would be consistent with the Yolo County CAP (Measure E-2), as well as goals and recommendations included in the 2017 Scoping Plan.

Additionally, all landscaping and irrigation at cultivation and noncultivation cannabis sites would be required to comply with Section 8-2.1408(Y) of the CLUO, which specifies applicable water conservation and drought tolerant landscaping requirements. This provision is consistent with policy provisions in the General Plan (Policy CC-4.12), as well as the Yolo County CAP (Measure E-7). Incorporation of water conservation measures would be consistent with goals and recommendations included in the 2017 Scoping Plan.

The potential use of nitrogen fertilizer at outdoor cultivation sites would be limited and regulated through compliance with Section 8-2.1408(A) of the CLUO as well as through implementation of a Nitrogen Management Plan required under State Water Resources Control Board Order WQ 2019-0001-DWQ (see Section 3.10, "Hydrology and Water Quality," regarding this requirement), which specifies the application of fertilizers to plant performance. This provision would be consistent with the Yolo County CAP (Measure A-1).

GHG emissions associated with construction and operation of cannabis sites by license type are shown in Table 3.8-2. Refer to Appendix E for detailed modeling input parameters and results.

Table 3.8-2 GHG Emissions Associated with Construction and Operation of Cannabis Sites for Each Cannabis Use Type[1]

Cannabis Use	GHG Emissions	
	Construction ($MTCO_2e$)	Operation ($MTCO_2e$/year)
Cultivation		
Outdoor	113	43
Mixed Light	161	516
Indoor	112	198
Noncultivation		
Nursery	201	242
Processing	48	18
Distribution	43	11
Retail	46	16
Microbusiness	45	12
Manufacturing	46	15
Testing	58	15

Notes: GHG = greenhouse gas; $MTCO_2e$/year = metric tons of carbon dioxide equivalent per year.

1. Includes CLUO requirement of 50-percent renewable electricity procurement at individual cannabis sites, as well as compliance with 2019 California Energy Code.

Source: Modeling conducted by Ascent Environmental in 2019

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this potential ground disturbance and the fact that personal outdoor cultivation would be an ancillary use to the residential parcel, minimal GHG emissions would be generated and would not be considered significant.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

While most of the existing licensed commercial cannabis cultivation operations would remain in their current locations, nine of the existing sites are assumed to be required to relocate under the CLUO zoning standards. No other construction activities are assumed to occur under this alternative. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities.

Table 3.8-2 shows the estimated GHG emissions associated with the construction and operation of individual cannabis uses by type. The total construction-generated GHG emissions for assumed cannabis uses under Alternative 1 would result in 2,511 metric tons of carbon dioxide equivalent ($MTCO_2e$). Annual operational emissions of GHGs from all cannabis cultivation sites assumed under Alternative 1 would be 9,831 $MTCO_2e$/year.

As noted above, the CLUO would result in GHG emission reductions because of the renewable energy, LED lighting, and water conservation performance standards. Table 3.8-2 shows the total estimated operational GHG emissions for cultivation sites.

CLUO Section 8-2.1408(O) would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans. For example, the cultivation sites permitted under the CLUO would be required to be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping. Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

Under Alternative 2, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 52 new noncultivation uses of which up to 47 would be vertically integrated and constructed on a single parcel (see Section 3.0, "Approach to the Environmental Analysis," and Appendix D). Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning and buffering standards under the CLUO. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities. Refer to Appendix D for detailed descriptions of the construction assumptions for cannabis uses.

Table 3.8-2 shows the estimated GHG emissions associated with the construction and operation of individual cannabis uses by type. The total construction-generated GHG emissions of all relocated and new cannabis sites assumed under Alternative 2 would result in 8,355 $MTCO_2e$. Annual operational emissions of GHGs from all cannabis sites assumed under Alternative 2 would be 12,277 $MTCO_2e$/year.

CLUO Section 8-2.1408(O) would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans.

For example, the cultivation sites permitted under the CLUO would be required be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping. Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for Alternative 2.

Alternative 3: All License Types with High Limits

Under Alternative 3, it was assumed for analysis purposes that construction of all new individual cannabis uses would occur over 2 years (2021 and 2022) because of the extent of new cannabis uses assumed. This alternative is assumed to result in the construction of 82 new cultivation sites and total of 104 new noncultivation uses of which up to 94 would be vertically integrated and constructed on a single parcel (see Section 3.0, "Approach to the Environmental Analysis," and Appendix D). Additionally, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning standards. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities.

Table 3.8-2 shows the estimated GHG emissions associated with the construction and operation of individual cannabis uses by type. The total construction-generated GHG emissions of all relocated and new cannabis sites assumed under Alternative 3 would result in 18,836 $MTCO_2e$. Annual operational emissions of GHGs from all cannabis sites assumed under Alternative 3 would be 24,236 $MTCO_2e$/year.

CLUO Section 8-2.1408(O) would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans. For example, the cultivation sites permitted under the CLUO would be required to be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping. Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Under Alternative 4, it was assumed for analysis purposes that nine of the 78 existing cultivation sites would be relocated under the CLUO zoning standards. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities. It was also assumed that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. This alternative also assumed the construction of 2 new mixed-light or indoor cultivation sites and total of 52 new noncultivation uses of which up to 47 would be vertically integrated and constructed on a single parcel. Refer to Section 3.0, "Approach to the Environmental Analysis," Appendix D for detailed descriptions of the assumptions for cannabis uses.

Table 3.8-2 shows the estimated GHG emissions associated with the construction and operation of individual cannabis uses by type. The total construction-generated GHG emissions of all relocated, outdoor cultivation sites converted to mixed-light or indoor cultivation, and new cannabis sites assumed under Alternative 4 would result in 15,000 $MTCO_2e$. Annual operational emissions of GHGs from all cannabis sites assumed under Alternative 4 would be 39,280 $MTCO_2e$/year.

CLUO Section 8-2.1408(O) would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans. For example, the cultivation sites permitted under the CLUO would be required to be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping.

Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Under Alternative 5, it was assumed for analysis purposes that there would be two new cultivation sites constructed as well as a total of 50 new noncultivation uses of which up to 45 would be vertically integrated and constructed on a single parcel (see Section 3.0, "Approach to the Environmental Analysis," and Appendix D). Additionally, it was assumed for analysis purposes that 30 of the 78 existing cultivation sites would be relocated due to zoning and buffering standards under the CLUO. The relocated sites would either construct new buildings and infrastructure or occupy existing agricultural facilities.

Table 3.8-2 shows the estimated GHG emissions associated with the construction and operation of individual cannabis uses by type. The total construction-generated GHG emissions of all relocated and new sites assumed under Alternative 5 would result in 8,263 $MTCO_2e$. Annual operational emissions of GHGs from all cannabis sites assumed under Alternative 5 would be 12,245 $MTCO_2e$/year.

CLUO Section 8-2.1408(O) would require all cannabis uses to procure at least 50 percent of their energy demand from renewable sources and mobile-source emissions are anticipated to decrease due to federal and state regulations, which aligns with both the Yolo County CAP and the 2017 Scoping Plan. Other performance standards included in the CLUO would further align with these adopted GHG reduction plans. For example, the cultivation sites permitted under the CLUO would be required to be consistent with Measure A-3 of the Yolo County CAP which addresses reduction in energy use in agricultural pumping. Additionally, all existing buildings used for cultivation or noncultivation purposes would be required to be consistent with Measure E-6 of the Yolo County CAP which addresses reduction in water consumption through increased plumbing fixture efficiency. Because the proposed CLUO is silent on the requirement to be consistent with the CAP, this impact is conservatively identified as potentially **significant** for Alternative 5.

Mitigation Measures

Mitigation Measure GHG-1: Demonstrate Compliance with Yolo County CAP (Alternatives 1, 2, 3, 4, and 5)

The following shall be included as a new performance standard in Section 8-2.1408 of the CLUO:

- Permittees shall demonstrate compliance with the applicable provisions of the Yolo County Climate Action Plan (CAP) including energy efficiency measures for irrigation pumps and water efficiency requirements for buildings.

Significance after Mitigation

Implementation of Mitigation Measure GHG-1 would ensure compliance all Yolo County CAP measures that are intended to reduce GHG emissions. The GHG emissions associated with project implementation would not be a considerable contribution to global climate change would be **less than significant** for all alternatives.

3.9 HAZARDS AND HAZARDOUS MATERIALS

This section provides an evaluation of the potential for adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO to create a significant hazard for the public or the environment, conflict with airspace or adopted emergency response plans, or expose people to wildland fires. The analysis includes a description of the existing environmental conditions, the methods used for assessment, and the potential direct and indirect impacts of project implementation. Hazards related to regional geologic and seismic hazards and the potential effects related to local hazards related to underlying geologic materials and soils are addressed in Section 3.7, "Geology and Soils."

Comments were received in response to the NOP pertaining to pesticide use and creation of hazardous conditions as part of cannabis processing, and manufacturing processes. The Yocha Dehe Wintun Nation provided the following comments: Cannabis cultivators should not be allowed to mix, prepare, overapply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides, and other chemicals) in any location where they could negatively affect public health or contaminate groundwater and surface water. The effectiveness of the CLUO in this regard should be evaluated.

Potential public health impacts related to cannabis uses are evaluated in this section. Potential environmental impacts related to use of pesticides in the cultivation of cannabis crops are considered in Section 3.2, "Agricultural Resources." Potential water quality impacts are considered in Section 3.10, "Hydrology and Water Quality."

3.9.1 Environmental Setting

HAZARDOUS MATERIALS AND WASTES

Hazardous materials are routinely used, stored, and transported by businesses (including industrial and commercial/retail businesses), public and private institutions (such as educational facilities and hospitals), and households. Due to lack of awareness with regard to handling and disposal, accidents, intentional actions, and historical business practices that predate current regulatory standards, sites are located in the County where hazardous wastes were released to soil or groundwater during storage, use, transfer, and disposal. These include sites that were historically contaminated but have been remediated and sites that are known, or believed, to be contaminated that are currently being characterized or undergoing remediation. Hazardous waste releases may be localized to the originating parcel or may migrate and contaminate nearby areas.

The State of California maintains the linked EnviroStor and Geotracker databases of known contamination sites pursuant to Government Code Section 65962.5. Based on the information gathered from these databases in 2019, there are a total of 39 known hazardous material and contamination sites in the County (see Exhibit 3.9-1). Of these sites there 31 active sites (clean-up activities ongoing). These sites include six leaking underground storage tanks (USTs), nine cleanup program sites, a military base cleanup site, and 15 land disposal sites.

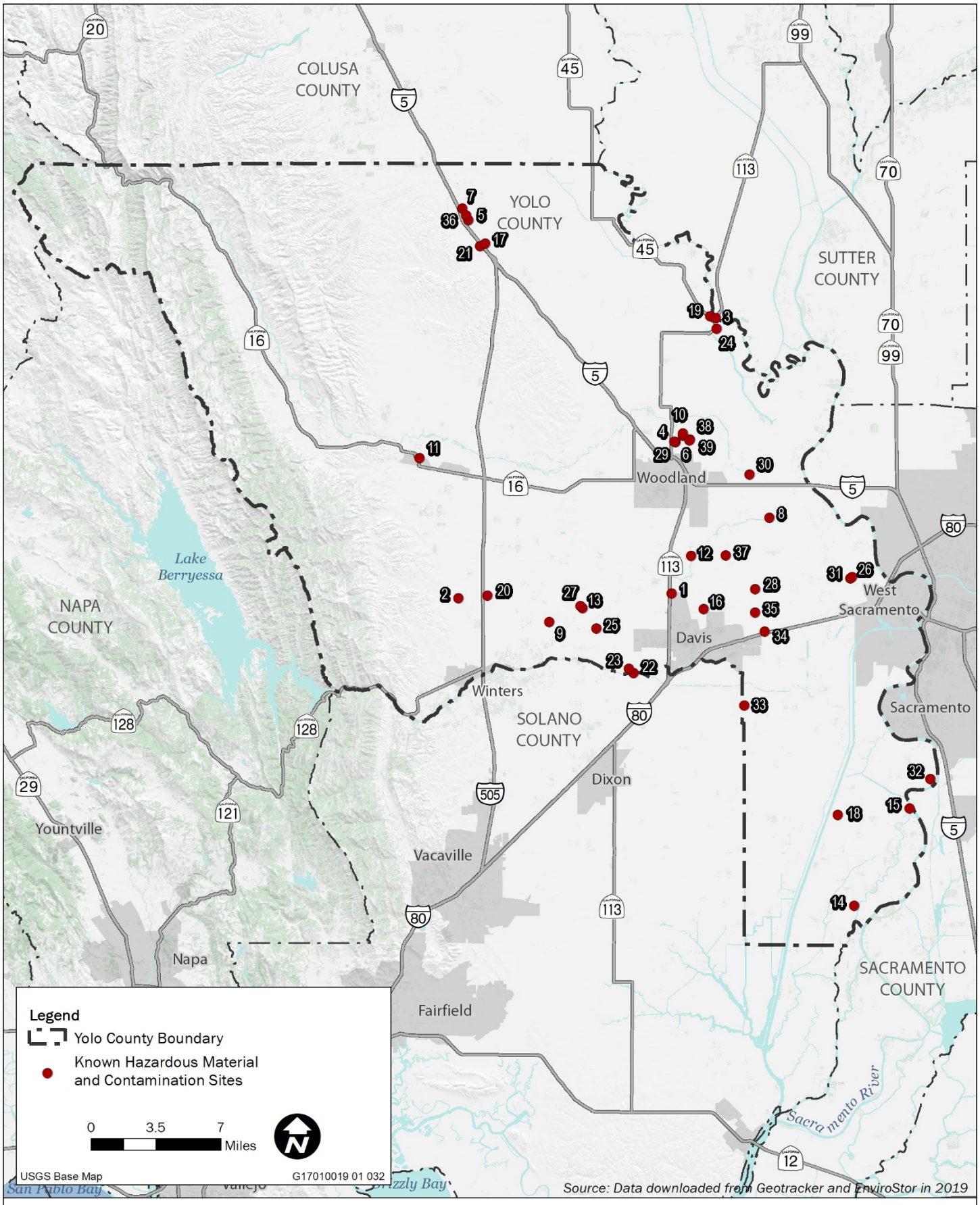


Exhibit 3.9-1 **Known Hazardous Material and Contamination Sites**

Superfund Sites

The Frontier Fertilizer site is the only Superfund site identified in Yolo County. The site was placed on the U.S. Environmental Protection Agency's (EPA's) Superfund list on May 31, 1994. It was first developed in the 1950s to store agricultural equipment. In the 1970s, business practices were to store, mix, and distribute pesticides and fertilizers for local agriculture. Pesticide handling ceased in 1983, when it was discovered that pesticides in wastewater disposed into an unlined disposal pit were resulting in the contamination of soils and the migration of these chemicals into shallow groundwater. EPA has been operating a groundwater extraction and treatment system since 1995. Quarterly groundwater monitoring data indicate that there are still areas with residual contamination. Soil gas and groundwater sampling is ongoing. There are land use restrictions in place. The California Department of Toxic Substances Control (DTSC) currently serves as the lead agency for groundwater remedy operation and maintenance and facility maintenance.

Underground Storage Tanks

Flammable liquids, such as gasoline, have historically been stored in USTs, which tend to leak over time, resulting in potential risks for the general public and the environment. Leaking USTs are common in Yolo County and are often associated with airports, farms, and abandoned railroad lines.

Hazardous Waste Generation in Yolo County

Approximately 800 Yolo County businesses generated hazardous waste in 2019. Generators of hazardous waste in Yolo County are required to submit a Hazardous Materials Business Plan to Yolo County Environmental Health Division (YCEHD) and are inspected for compliance with federal and state hazardous waste storage, handling, and disposal regulations at least once every 3 years (YCEHD 2019).

HAZARDOUS MATERIALS ASSOCIATED WITH AGRICULTURE

Agricultural enterprises have historically stored, handled, and applied pesticides and herbicides throughout Yolo County. Agricultural chemicals used before the 1970s often included highly persistent compounds, such as dichlorodiphenyltrichloroethane (DDT). Inorganic compounds containing heavy metals, such as arsenic, lead, and mercury, were commonly used before the 1950s. Chemicals commonly used in the past have the potential to leave residual inorganic or organic components in shallow soils that could persist for many decades. If present in elevated concentrations, these residues could pose a potential health risk to persons who come in direct contact with surface soils.

Modern agricultural chemicals are generally less persistent organic compounds. Routine application of these materials does not typically result in accumulation to levels sufficient to cause concern because of product testing by EPA before commercial use and regulation related to product application. Typical concerns are (1) pesticide-handling areas that lack concrete pads, berms, or cribs to contain spills or leaks during handling and storage and (2) rinse water from washout facilities for pesticide-application equipment that has not been properly collected and treated before discharge. Equipment-repair and petroleum-storage areas might also be of concern.

NATURALLY OCCURRING ASBESTOS

Naturally occurring asbestos includes fibrous minerals found in serpentine and other certain types of rock formations. Serpentine rocks are mapped in the northwest portion of the County in the Cache Creek Wilderness, which is managed by the U.S. Bureau of Land Management (U.S. Geological Survey and California Geological Survey 2011). Natural weathering or human disturbance can break naturally occurring asbestos down into microscopic fibers that are suspended easily in air. When airborne asbestos is inhaled, these thin fibers irritate tissues and resist the body's natural defenses.

AIRPORT HAZARDS

Yolo County has four public use airports: Yolo County Airport, Borges-Clarksburg Airport, Watts-Woodland Airport, and University Airport. The Yolo County Airport is located in south-central Yolo County, just to the north and west of the city of Davis and southwest of the city of Woodland. The Borges-Clarksburg Airport is located in eastern Yolo County, approximately 1 mile northeast of the town of Clarksburg. The Watts-Woodland Airport is located approximately 5 miles west of the city of Woodland. University Airport is located approximately 2 miles west of the city of Davis. In addition, Sacramento International Airport is located immediately east of the County boundary, and there are a number of private airstrips and heliports in the County, including the California Highway Patrol Academy Airport in Bryte (West Sacramento), G3 Ranch Airport in Capay, Medlock Field between Woodland and Davis, KOVR television station's helistop in West Sacramento, and Joe Heidrick Heliport in Woodland.

WILDLAND FIRE HAZARDS

In July 2018, Yolo County had two wildfires: the County Fire (90,288 acres burned in Yolo and Napa Counties west of Guinda) and the Eighty Eight Fire (822 acres burned at County Road 88 and County Road 29).

In accordance with PRC Sections 4201–4204 and Government Code Sections 51175–51189, the California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones, represent the risks associated with wildland fires. The western third of Yolo County (west of Esparto and Winters) has been classified as having moderate to very high wildfire risk, with the very high risk areas concentrated in the northwest portion of the County bordering Napa, Lake, and Colusa Counties (Exhibit 3.9-2). Most of the remaining areas of the County are unzoned, representing minimal to moderate wildfire risk.

In California, responsibility for wildfire prevention and suppression is shared by federal, state, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. The State of California has determined that some nonfederal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas, which are managed by CAL FIRE. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas. Most of the western third of Yolo County has been classified as a State Responsibility Area in the moderate hazard category, with Federal Responsibility Areas near the northwest and west County boundaries. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

VECTORS

The Sacramento-Yolo Mosquito Vector Control District (District) implements an integrated pest management plan throughout Sacramento and Yolo Counties that includes public education, surveillance, and control activities. The District has prepared a Mosquito Reduction Best Management Practices Manual that provides specific information regarding District policies, mosquito biology, and various best management practices (BMPs) that can be useful in reducing mosquito populations. Land use–specific sections provide guidance for landowners and land-managers who deal with programs such as: managed wetlands, stormwater and wastewater systems, irrigated agriculture, rice production, dairies, swimming pools, cemeteries, and tire storage facilities. The District's Ecological Management Department provides detailed guidance to property owners on how to best implement the BMPs.

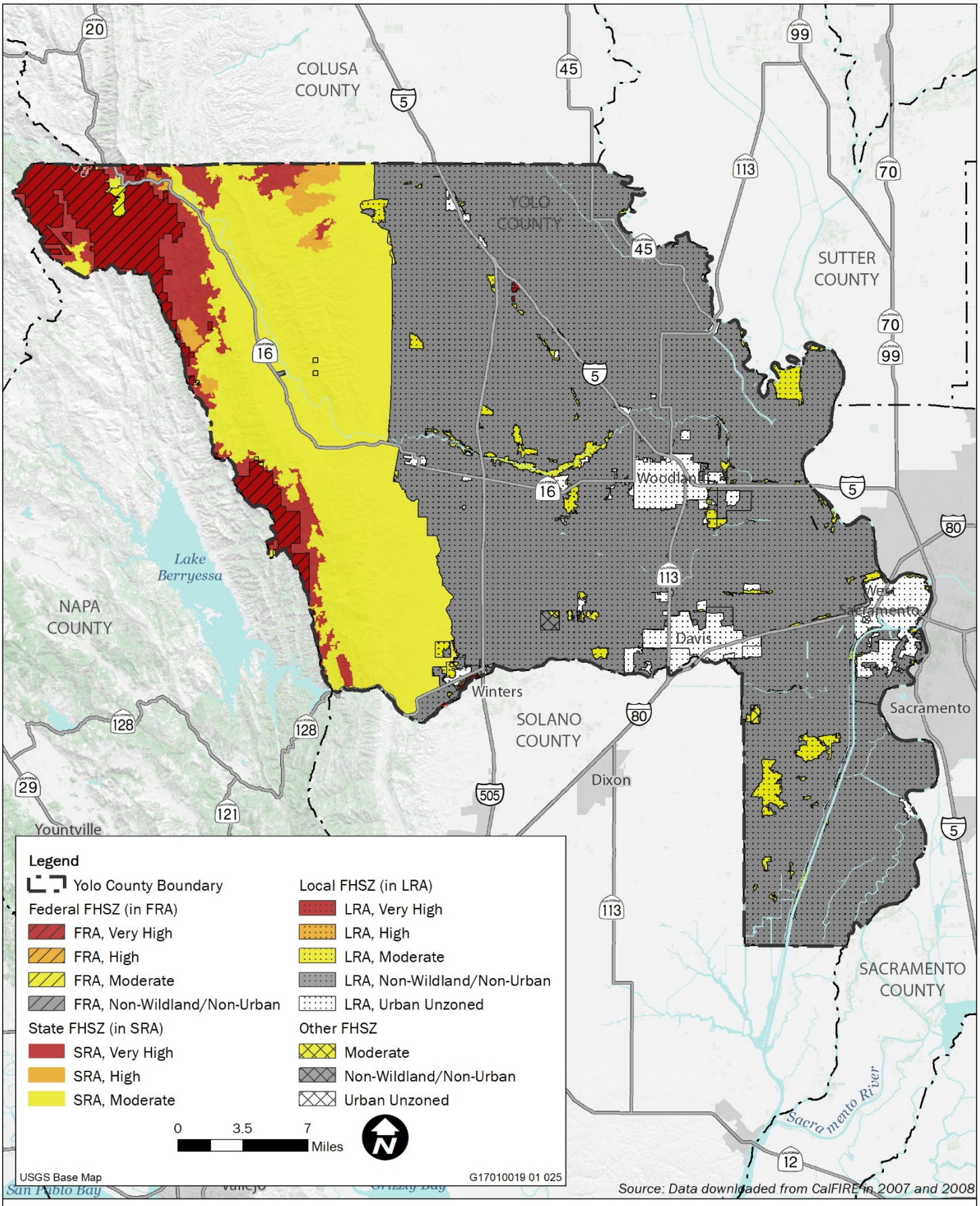


Exhibit 3.9-2 **Fire Hazard Designations in the County**

3.9.2 Regulatory Setting

FEDERAL

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act) (42 U.S. Code Section 9601 et seq.) was established to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. CERCLA created a tax on the chemical and petroleum industries to generate funds to clean up abandoned or uncontrolled hazardous waste sites for which no responsible party could be identified. CERCLA also granted authority to EPA to respond directly to hazardous waste spills and required those responsible for a spill or accidental release of hazardous materials to report the release to EPA.

The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amended some provisions of CERCLA. The Superfund Amendments and Reauthorization Act increased the focus on human health problems posed by hazardous waste releases, stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, and encouraged greater citizen participation in making decisions on how sites should be cleaned up.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 U.S. Code Section 6901 et seq.) sets national goals for protecting human health and the environment from the potential hazards of waste disposal, conserving energy and natural resources, reducing the amount of waste generated, and ensuring that wastes are managed in an environmentally sound manner. To achieve these goals, the RCRA established three interrelated programs: the solid waste program, the hazardous waste program, and the UST program.

The hazardous waste program established a system for controlling hazardous wastes from the time they are generated to the time they are disposed of ("cradle-to-grave" management). Under the RCRA, owners and operators of hazardous waste treatment, storage, and disposal facilities must follow a set of standards (e.g., facility design and operation, contingency planning and emergency preparedness, and recordkeeping) to minimize risk and impacts on human health and the environment, codified in Title 40 of the CFR, Part 264.

Emergency Planning and Community Right-to-Know Act—Toxic Release Inventory

Section 313 of the Emergency Planning and Community Right-to-Know Act established the Toxic Release Inventory (TRI). TRI is a publicly available database containing information on disposal and other releases of toxic chemicals from industrial facilities. As stipulated in 40 CFR Part 372, owners or operators of facilities that release toxic chemicals above a certain threshold (25,000 pounds or more per year) are required to submit information about (1) on-site releases and other disposals of toxic chemicals; (2) on-site recycling, treatment, and energy recovery associated with TRI chemicals; (3) off-site transfers of toxic chemicals from TRI facilities to other locations; and (4) pollution prevention activities at facilities.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (DOT) has developed regulations in CFR Titles 10 and 49 pertaining to the transport of hazardous substances and hazardous wastes. The Hazardous Materials Transportation Act is administered by the Research and Special Programs Administration of DOT. The act provides DOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting the nation against risk to life and property that is inherent in the commercial transportation of hazardous materials. DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers.

Occupational Safety and Health Administration Worker Safety Requirements

The Occupational Safety and Health Administration (OSHA) is responsible for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for handling hazardous substances and addressing other potential industrial hazards. OSHA also establishes criteria by which each state can implement its own health and safety program. The Hazard Communication Standard (CFR Title 29, Part 1910) requires that workers be informed of the hazards associated with the materials they handle. These standards include exposure limits for a wide range of specific hazardous materials, including pesticides, as well as requirements that employers provide personal protective equipment (i.e., protective equipment for eyes, face, or extremities; protective clothing; respiratory devices) to their employees wherever it is necessary (i.e., when required by the label instructions) (29 CFR Section 1910.132). Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and building emergency response plans and procedures. Containers must be labeled appropriately, and material safety data sheets must be available in the workplace.

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, Superfund Amendments and Reauthorization Act Title III or the Emergency Planning and Community Right-to-Know Act (EPCRA), described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- emergency planning,
- emergency release notification,
- reporting of hazardous chemical storage, and
- inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

DTSC, a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the state, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking USTs.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted DOT regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in 26 CCR. State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Control Act and the National Pollutant Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Control Act, the NPDES program, and the role of the Central Valley RWQCB, see Section 3.10, "Hydrology and Water Quality."

The State Water Resources Control Board (SWRCB) adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan must be developed and implemented for each site covered by the permit. It must include BMPs designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Division of Occupational Safety and Health (referred to as Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are utilized during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives in construction.

California Accidental Release Prevention Program

The goal of the California Accidental Release Prevention (CalARP) Program (CCR Title 19, Division 2, Chapter 4.5) is to reduce the likelihood and severity of consequences of any releases of extremely hazardous materials. Any business that handles regulated substances (chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane) must prepare a risk management plan. The risk management plan is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce this accident potential. The plan must provide safety information, hazard data, operating procedures, and training and maintenance requirements. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

Hazardous Waste Control Law and Universal Waste Rule

Under CCR Title 22 and the California Hazardous Waste Control Law, DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. California's Universal Waste Rule allows individuals and business to transport, handle, and recycle certain common hazardous wastes, termed universal wastes, in a manner that differs from the requirements for most hazardous wastes. Universal wastes include televisions, computers, and other electronic devices, as well as batteries, fluorescent lamps, mercury thermostats, and other mercury-containing equipment. The hazardous waste regulations (CCR Title 22, Division 4.5, Chapter 11) identify seven categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported and recycled following the simple requirements set forth in the universal waste regulations.

Cannabis Manufacturing Regulations

CCR Title 17, Public Health, Division 1 State Department of Health Services, Chapter 13, includes the following hazardous material and safety requirements regarding manufacturing processes for cannabis:

- Section 40223(b): Ethanol extraction operations shall be approved by the local fire code official and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

- Section 40225 (Closed-Loop Extraction System Requirements):

  (a) Chemical extractions using CO_2; a volatile solvent; or chlorofluorocarbon, hydrocarbon, or other fluorinated gas shall be conducted in a professional closed loop extraction system designed to recover the solvents. The system shall be commercially manufactured and bear a permanently affixed and visible serial number. The system shall be certified by a California-licensed engineer that the system was commercially manufactured, safe for use with the intended solvent, and built to codes of recognized and generally accepted good engineering practices, such as:

  (1) The American Society of Mechanical Engineers (ASME);
  (2) American National Standards Institute (ANSI);
  (3) Underwriters Laboratories (UL); or
  (4) The American Society for Testing and Materials (ASTM).

  (b) Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for use by the local fire code official and comply with any required fire, safety, and building code requirements related to the processing, handling, and storage of the applicable solvent or gas.

  (c) The certification document required pursuant to subsection (a) shall contain the signature and stamp of a California-licensed professional engineer and the serial number of the extraction unit being certified.

  (d) The licensee shall establish and implement written procedures to document that the closed loop extraction system is maintained in accordance with the equipment manufacturer specifications and to ensure routine verification that the system is operating in accordance with specifications and continues to comply with fire, safety, and building code requirements.

  (e) A licensee shall develop standard operating procedures, good manufacturing practices, and a training plan prior to producing extracts. Any personnel using solvents or gases in a closed loop system to create extracts must be trained on how to use the system, have direct access to applicable safety data sheets, and handle and store solvents and gases safely.

  (f) The extraction operation shall be operated in an environment with proper ventilation, controlling all sources of ignition where a flammable atmosphere is or may be present, and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

  (g) No closed loop extraction system operation shall occur in an area zoned as residential.

- Section 40280 (Training Program):

  (a) The licensee shall implement a training program to ensure that all personnel present at the premises are provided information and training that, at minimum, covers the following topics:

  (1) Within 30 days of the start of employment:

(A) Health and safety hazards;

(B) Hazards presented by all solvents or chemicals used at the licensed premises as described in the safety data sheet for each solvent or chemical;

(C) Emergency response procedures;

(D) Security procedures;

(E) Record keeping requirements; and

(F) Training requirements.

(2) Manufacturing and production personnel, prior to independently engaging in any cannabis manufacturing process:

(A) An overview of the cannabis manufacturing process and standard operating procedure(s);

(B) Quality control procedures;

(C) The product quality plans developed in accordance with Section 40253;

(D) Proper and safe usage of equipment or machinery;

(E) Safe work practices applicable to an employee's job tasks, including appropriate use of any necessary safety or sanitary equipment;

(F) Cleaning and maintenance requirements;

(G) Emergency operations, including shutdown; and

(H) Any additional information reasonably related to an employee's job duties.

California Fire Code

The California Fire Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The California Fire Code establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. The California Fire Code also contains requirements related to emergency planning and preparedness, fire service features, building services and systems, fire-resistance-rated construction, fire protection systems, and construction requirements for existing buildings, as well as specialized standards for specific types of facilities and materials. Structures used for indoor cultivation of cannabis and cannabis-supportive uses (e.g., manufacturing, distribution, processing, microbusinesses, and retail nurseries) would be subject to applicable sections of the California Fire Code.

Hazardous Materials Management Plan

The California Fire Code requires businesses that handle more than a threshold quantity of hazardous materials to prepare a Hazardous Materials Management Plan (HMMP) and a Hazardous Materials Inventory Statement (HMIS). HMMPs and HMISs are similar to the Hazardous Materials Business Plans (HMBPs) and Hazardous Materials Area Plans (HMAP) required under Chapter 6.95 of the California Health and Safety Code, but the CAL FIRE Office of the State Fire Marshall is responsible for implementing the HMMP and HMIS.

The HMMP must include a facility site plan containing information such as the location of emergency equipment, hazardous material storage tanks, and emergency exits. The HMIS must include information on the hazardous materials at the site, such as product name, chemical components, amount in storage, and

hazard classification. As part of an application for a permit, owners or operators of facilities that handle hazardous materials also must submit an emergency response plan and an emergency response training plan. Commercial cannabis cultivation facilities that store or handle greater than threshold quantities of hazardous materials (e.g., pesticides, fuel) are required to prepare an HMMP and HMIS. Threshold quantities are defined by the state as 55 gallons of liquids, 500 pounds of solids, 200 cubic feet of a compressed gas (CalOES 2014).

Responsibility for Fire Protection and Hazardous Fire Areas

PRC Sections 4125–4137 establish that CAL FIRE has the primary financial responsibility of preventing and suppressing fires in State Responsibility Areas. CAL FIRE also has responsibility for enforcement of Fire Safe Standards as required by PRC 4290 relating to road standards for fire equipment access; standards for signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fuel breaks and greenbelts.

Public Resources Code Division 4, Part 2, Chapter 1.5

Chapter 1.5 (consisting of Sections 4210–4229) of the PRC requires the state to have primary financial responsibility for preventing and suppressing fires in State Responsibility Areas, as determined by the California Board of Forestry and Fire Protection.

Section 4213.1 of PRC Chapter 1.5 requires CAL FIRE, through the Fire Prevention Fee billing process, to inform property owners that if they sell a habitable structure or structures, a division of the Fire Prevention Fee may be negotiated as one of the terms of sale. Section 4213.2 of PRC Chapter 1.5 allows the owner of a property with one or more habitable structures subject to the fee, if selling the property, to negotiate a division of the fee as one of the terms of the sale. However, payment of the total fee liability remains the responsibility of the person who owns the habitable structure on July 1 of the year the fee is due.

Public Resources Code Section 4291

PRC Section 4291 requires a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material to maintain defensible space of 100 feet from each side and from the front and rear of the structure. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.

California Building Code

CCR Title 24, Part 2, Section 701A.3.2 (New Buildings Located in Any Fire Hazard Severity Zone) requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any local agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted shall comply with all the requirements of Chapter 7A, including the following requirements:

- roofing design must be fire resistant and constructed to prevent the intrusion of flames and embers (Section 704A.1),
- attic ventilation must be designed to be resistant to the intrusion of flames and embers into the attic area of the structure (Section 704A.2),
- exterior walls (including vents, windows, and doors) must be designed with noncombustible or ignition-resistant material and resist the intrusion of flame and ember (Section 704A.3),
- decking must be designed with ignition-resistant material (Section 704A.4), and
- ancillary buildings and structures must comply with the above provisions (Section 704A.5).

LOCAL

Certified Unified Program Agency

The California Environmental Protection Agency designates specific local agencies as Certified Unified Program Agencies (CUPAs). YCEHD is the CUPA designated for Yolo County and the Cities of Davis, West Sacramento, Winters, and Woodland and is responsible for the implementation of six statewide programs within its jurisdiction:

- underground storage of hazardous substances,
- hazardous materials business plan requirements,
- hazardous waste generator requirements,
- CalARP program,
- Uniform Fire Code HMMP, and
- aboveground storage tanks (Spill Prevention Control and Countermeasures Plan only).

Implementation of these programs involves:

- permitting and inspection of regulated facilities,
- providing educational guidance and notice of changing requirements stipulated in state or federal laws and regulations,
- investigations of complaints regarding spills or unauthorized releases, and
- administrative enforcement actions levied against facilities that have violated applicable laws and regulations.

The hazardous materials programs administered under the CUPA program are described below.

Hazardous Materials Management Plan

Businesses that store hazardous materials in excess of specified quantities must report their chemical inventories to YCEHD by preparing an HMMP, also known as a business plan. This information informs the community on chemical use, storage, handling, and disposal practices. It is also intended to provide essential information to firefighters, health officials, planners, elected officials, workers, and their representatives so that they can plan for, and respond to, potential exposures to hazardous materials.

California Accidental Release Prevention Program

Under the CalARP Program, businesses that use large quantities of acutely hazardous materials must prepare a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential.

Underground Storage Tank Programs

Current regulations require that USTs be installed, monitored, operated, and maintained in a manner that protects public health and the environment. Tanks must be constructed with primary and secondary levels of containment and be designed to protect public health and the environment for the lifetime of the installation. The USTs must be monitored for leaks and built such that a leak from the primary container into the secondary container will be detected. When a UST tank is proposed to be removed, a detailed permit application must be submitted to YCEHD, which oversees removal activities to identify evidence of leakage.

YCEHD regulates the construction, operation, repair and removal of UST systems throughout Yolo County to ensure that hazardous materials are not released into the environment. Tanks and associated piping systems are required to meet stringent construction standards designed to reduce the potential for product loss. All tanks installed or upgraded must be continuously monitored.

Aboveground Storage Tank Programs

Inspections are required for facilities storing hazardous materials in aboveground storage tanks by YCEHD. In addition, any facility operating aboveground storage tanks with an aggregate tank capacity of 1,320 gallons or more must (1) complete a Spill Prevention Control and Countermeasure plan to provide a detailed engineering analysis of the potential for release from aboveground storage tanks present at a facility and the measures, such as secondary containment and emergency response that can be implemented to reduce the release potential and (2) file a storage statement, as required by SWRCB.

Hazardous Waste Generation and Disposal

Once a hazardous material has been used or processed, what remains may be considered a hazardous waste. Many items routinely used by residents and businesses, such as paints and thinners, cleaning products, and motor oil, are considered hazardous waste once they are ready for disposal. Nearly all businesses and residences in the County are expected to generate some amount of hazardous wastes (including household hazardous wastes). Hazardous waste generation and disposal regulations are administered and enforced by YCEHD. Businesses that generate more than 100 kilograms of hazardous waste per month, or more than 1 kilogram of acutely hazardous waste, must be registered with EPA's RCRA program and are subject to extensive regulations regarding storage and disposal.

Emergency Response

Natural disasters, events resulting in the release of hazardous materials into the environment, and accidents resulting from a hazard necessitate an emergency response or evacuation plan. These plans facilitate coordination between government agencies to provide central management for effective response in an emergency situation within a given area. Various levels of government are responsible for applying resources and emergency relief to those in the emergency area to minimize the effects of the hazards or hazardous materials. Emergency plans outline the critical factors necessary during an emergency, including communications, transportation, a command station, control, and shelter. Emergency plans also often identify designated evacuation routes and procedures.

Yolo County maintains an Emergency Operation Center, which is the central location used to manage a disaster or other large-scale emergency in the County. Emergency response is governed by two plans: the Yolo County Emergency Operations Plan, which describes overall responsibilities, and the Yolo Operational Area Multi-Hazard Mitigation Plan, which was developed in response to a Federal Emergency Management Agency mandate to describe specific disasters and possible responses. A third plan, Yolo Operational Area Hazardous Materials Environmental Response Plan, is implemented by YCEHD and addresses response to hazardous materials emergencies. This plan establishes a Hazardous Materials Response Team, which becomes active when deemed necessary by a fire department officer and combines the forces of the University of California, Davis, City of Davis, City of West Sacramento, and City of Woodland fire departments and YCEHD.

Yolo County Emergency Evacuation Procedures

Jurisdictions throughout Yolo County have participated in a joint planning project to identify evacuation zones that can be used during large-scale evacuation and shelter-in-place events. Evacuation zones are identified at the "Know Your Zone" web mapping application at evacuate.yolocounty.org. Evacuation routes generally follow major highways and roads, and rally points are identified in each zone.

2030 Yolo County Countywide General Plan

The Yolo County 2030 Countywide General Plan (General Plan) establishes a goal, policies, and, as part of the implementation program, actions to ensure safety from hazardous materials and fire hazards in and around the County. Potentially relevant policies are as follows:

- **Policy HS-3.1:** Manage the development review process to protect people, structures, and personal property from unreasonable risk from wildland fires.

- **Policy HS-3.3:** Clearly communicate the risks, requirements, and options available to those who own land and live in wildfire hazard areas.

  - **Action HS-A38:** Require new and/or existing development to establish "defensible space" by providing for clearance around structures, using fire resistant ground cover, building with fire-resistant roofing materials, fuel load reduction, and taking other appropriate measures.

  - **Action HS-A39**: Require the design and construction of new roadways and driveways in fire hazard areas to be of sufficient width, radius and grade to facilitate access by fire-fighting apparatus.

  - **Action HS-A44**: Implement State recommendations for fire prevention in Fire Hazard Severity Zones.

  - **Action HS-A45**: Coordinate with fire districts to ensure fire safe design and construction of new development.

- **Policy HS-4.1:** Minimize exposure to the harmful effects of hazardous materials and waste. Protect the community and the environment from hazardous materials and waste.

- **Policy HS-4.2:** Inspect businesses regularly for compliance with their Hazardous Materials Inventory and Hazardous Materials Business Emergency Response Plan.

- **Policy HS-4.3:** Encourage the reduction of solid and hazardous wastes generated in the county.

  - **Action HS-A46**: Provide adequate separation between areas where hazardous materials are present and sensitive uses. The following land uses are considered sensitive receptors for the purpose of exposure to hazardous materials: 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. Home occupation uses are excluded.

  - **Action HS-A47**: New development and redevelopment in areas previously used for agricultural, commercial, or industrial uses shall ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses, as well as lead paint and/or asbestos potentially present in building materials, will not have the potential to affect the environment or health and safety of future property owners or users, and any affected areas shall be properly abated. A Phase I Environmental Site Assessment (ESA) to American Society for Testing and Materials (ASTM) standards shall be required where appropriate and a Phase II ESA may be required in certain circumstances based on the recommendations/results of the Phase I. Where the Phase I report has identified agricultural cultivation prior to the 1980s, a shallow soil investigation shall be performed at the property in accordance with DTSC guidance for sampling agricultural properties.

- **Policy HS-5.1**: Ensure that land uses within the vicinity of airports are compatible with airport restrictions and operations.

- **Policy HS-5.2**: Ensure that new development near commercial and public use airports is consistent with setbacks, height, and land use restrictions as determined by the Federal Aviation Administration and the Sacramento Area Council of Governments Airport Land Use Commission. Ensure that development proximate to private airstrips addresses compatibility issues.

- **Policy HS-5.3**: Respect and conservatively enforce airport safety zones as identified in airports CLUPs.

- **Policy PF-5.3**: Require assertive fire protection measures in all development to supplement limited rural fire district resources.

- **Policy PF-5.8**: Anticipate and adapt to potential changes in frequency and severity of wildfires resulting from predicted effects of global warming.

- **Policy PF-5.9:** The County shall require, and applicants must provide, a will-serve letter from the appropriate fire district/department confirming the ability to provide fire protection services to the project, prior to each phase.

    - **Action PF-A29**: Require that new development comply with all State and local requirements within the State Responsibility Area.

    - **Action PF-A30**: Maintain requirements that fire sprinklers be installed in all new residences and commercial/industrial areas where appropriate.

Airport Plans

The Sacramento Area Council of Governments is the designated Airport Land Use Commission (ALUC) for Yolo, Sacramento, Sutter, and Yuba Counties. There are four general aviation airports in Yolo County. Three of these airports—Yolo County Airport, Watts-Woodland Airport, and Borges-Clarksburg Airport—are subject to the respective airport Comprehensive Land Use Plans (CLUPs) prepared by the ALUC. A fourth airport, University Airport, is subject to an Airport Layout Plan prepared by the University of California, Davis. Land use compliance and safety are addressed through implementation of the CLUPs and Yolo County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes.

3.9.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis below evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts as a result of exposure of people or structures to hazardous conditions and hazardous materials or the creation of hazardous conditions. This program-level analysis is based on current information available in databases of DTSC (EnviroStor) and SWRCB (GeoTracker), as well as other sources cited in Section 3.9.1, "Environmental Setting."

The design details of site-specific cannabis projects permitted under the CLUO are not known at this time. This analysis uses the extent and general locations of future cannabis uses assumed for each of the five alternatives based on information presented in Table 2-4, Appendix D, and Exhibits 2-4 through 2-8, provided in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," to provide an assessment and comparison of reasonably foreseeable outcomes from different regulatory scenarios.

Impacts related to hazardous materials and wildfire were analyzed qualitatively based on a review of the cannabis cultivation and processing practices and associated equipment and materials that may be used as a result of implementation of the CLUO under each alternative. The analysis focused on the potential of cannabis uses to create hazards to humans through the transport, use, exposure, or accidental release of hazardous materials and increased risk of exposure to other hazards, such as wildfires. The potential for the adoption and implementation of the CLUO to result in hazardous conditions was analyzed for each alternative in the context of existing laws and regulations and the extent to which these existing regulations and proposed CLUO provisions (see Appendix C) adequately address and minimize the potential hazard impacts. Traffic safety concerns are addressed in Section 3.14, "Transportation and Circulation."

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address hazards that occur in the County and are considered important by the state, CEQA, and Yolo County and whether implementation of the CLUO could create an impact.

The project would result in a significant impact related to hazards if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildfires; or
- for project features located in or near State Responsibility Areas or lands classified as very high fire hazard services zones:
    - due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
    - require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment; or
    - expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes.

These thresholds also address the Mandatory Findings of Significance under State CEQA Guidelines Section 15065(a)(4) on whether the environmental effects of the project would cause adverse effect on human beings, either directly or indirectly.

IMPACT ANALYSIS

Impact HAZ-1: Create a Significant Hazard through Transport, Use, or Disposal of Hazardous Materials

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could create a hazard through the routine transport, use, or disposal of pesticides and other hazardous materials. However, compliance with existing regulations specifically designed to protect the public health would be sufficient to preclude significant hazardous materials impacts on public health and the environment. This impact would be **less than significant** for all alternatives.

Similar to many agricultural operations, commercial cannabis operations do involve the use of pesticides, herbicides, rodenticides, and other chemicals for growing, processing, and manufacturing of cannabis and cannabis products. Cannabis uses are regulated to protect public health and through storage, use, and safety requirements.

Operation of all cannabis cultivation sites, regardless of alternative, would be required to comply with Section 8-2.1408(A) of the CLUO, which states:

> Permittees shall comply with applicable County and State requirements, and manufacturer instructions, for use to the satisfaction of the County Agricultural Commissioner and other responsible official. California Department of Food and Agriculture (CDFA) licensees shall implement the Pest Management Plan required pursuant to Section 8106(a)(3) and Section 8106(b)(2) of the CDFA Regulations, as applicable. CDFA licensees shall comply with pesticide laws and regulations as enforced by the Department of Pesticide Regulation pursuant to Section 8307, Pesticide Use Requirements, of the CDFA Regulations.

As described in Section 3.2, "Agricultural Resources," pesticides used on cannabis cultivation sites must have active ingredients that are exempt from residue tolerance requirements and that are either exempt from registration requirements or are registered for a use that is broad enough to include use on cannabis. Some of these pesticides are bacterial-based insect pathogens (e.g., *Bacillus thuringiensis*) or biofungicides (e.g., *Bacillus subtilis*, *Gliocladium virens*). Active ingredients exempt from registration requirements are mostly food-grade essential oils, such as peppermint oil or rosemary oil. The use of restricted pesticides on cannabis cultivation is prohibited. Harvested cannabis is required to pass laboratory tests for the following constituents as required under CCR Title 16, Division 42, Sections 5304 and 5702. Cannabis must be sampled for the following constituents and pass the testing levels set forth in CCR Sections 5718–5725, which are based on protection of public health and the environment:

- cannabinoids;
- foreign material;
- heavy metals;
- microbial impurities;
- mycotoxins;
- moisture content and water activity;
- residual pesticides;
- residual solvents and processing chemicals;
- if applicable, terpenoids; and
- if applicable, homogeneity.

If the tested cannabis batch fails these tests, the cannabis batch will not be released for retail sale. As a result of these testing requirements, licensed cannabis cultivation sites limit the use of pesticides that could create conflicts with adjoining land uses and agricultural activities. CCR Section 8307(b) includes pesticide storage requirements (leak containment) and restrictions on application methods to prevent off-site drift to avoid public health impacts and off-site contamination, as well as protect water quality.

CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified below, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety:

- Section 40223(b): Ethanol extraction operations shall be approved by the local fire code official and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

- Section 40225(a): Chemical extractions using CO_2; a volatile solvent; or chlorofluorocarbon, hydrocarbon, or other fluorinated gas shall be conducted in a professional closed loop extraction system designed to recover the solvents.

- Section 40225(b): Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for use by the local fire code official and comply with any required fire, safety, and building code requirements related to the processing, handling, and storage of the applicable solvent or gas.

- Section 40225(d): The licensee shall establish and implement written procedures to document that the closed loop extraction system is maintained in accordance with the equipment manufacturer specifications and to ensure routine verification that the system is operating in accordance with specifications and continues to comply with fire, safety, and building code requirements.

- Section 40225(e): A licensee shall develop standard operating procedures, good manufacturing practices, and a training plan prior to producing extracts. Any personnel using solvents or gases in a closed loop system to create extracts must be trained on how to use the system, have direct access to applicable safety data sheets, and handle and store solvents and gases safely.

- Section 40280(a): The licensee shall implement a training program to ensure that all personnel present at the premises are provided information and training that covers health and safety hazards and emergency response procedures.

In addition to state requirements and CLUO Section 8-2.1408(A) that addresses pesticide use, CLUO Section 8-2.1408(W) requires that:

> If the facility handles any hazardous materials in reportable quantities the facility shall be regulated by the Certified Unified Program Agency (CUPA) in compliance with state law Section 25500 of the CHSC [California Health and Safety Code]. Storage and disposal of hazardous materials and hazardous waste must be conducted in a manner consistent with Federal, State, and County laws, regulations, rules, and/or other requirements. Required disclosures, business plans, storage protocol including fuel storage, and hazard response plans shall be provided to the County and shall be consistent with the requirements of the Division of Environmental Health and California Code of regulations Title 22 Division 4.5. CDFA licensees shall demonstrate compliance with the principles and guidelines for discharge and water quality contained in the Cannabis Cultivation Policy of the State Water Resources Control Board.

Section 3.9.2, "Regulatory Setting," identifies the hazardous programs administered under the CUPA. These programs protect public health and the environment from hazardous material usage through storage requirements and measures to contain accidental releases, proper handling and disposal requirements, and disclosure of operations involving hazardous materials to the County and fire protection agencies to ensure proper response if accidents occur (e.g., spills and fires). The CLUO would be consistent with General Plan Policy HS-4.2 regarding compliance with hazardous material requirements.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to

indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel and would not involve large-scale use of pesticides or hazardous materials, no hazardous material impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the 78 existing and eligible cultivation sites and would retain the existing cannabis cultivation that currently exists in the County (see Exhibit 2-4). Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. No expansion of cannabis uses would occur.

These cultivation sites may use pesticides or other hazardous materials that would be regulated under state requirements and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO, described above. These requirements restrict the type and extent of pesticides that can be used and include storage and handling requirements designed to protect human health and the environment (e.g., no use of restricted pesticides and storage requirements that include leak containment). Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 of the 78 existing and eligible cultivation sites to comply with zoning and buffering standards of the CLUO, and the provision of 54 new cannabis uses (cultivation, manufacturing, distribution, testing, microbusinesses, retail, processing, and nurseries) (see Table 2-4 and Exhibit 2-5).

This alternative assumes up to 20 manufacturing sites. Seven of these sites are assumed for analysis purposes, to be located near the communities of Guinda, Esparto, and Dunnigan and the City of Winters. The creation of cannabis products is often accomplished through extraction methods and/or chemical synthesis. Extraction usually involves the use of a closed loop system using carbon dioxide or volatiles (e.g., butane) to remove the key constituents from the cannabis. While these systems can present health and safety hazards if not conducted properly, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety.

Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumes the relocation of nine of the 78 existing and eligible cultivation sites to comply with zoning standards of the CLUO, and the provision of 186 new cannabis uses (cultivation, manufacturing, distribution, testing, microbusinesses, retail, processing, and nurseries) (see Table 2-4 and Exhibit 2-6).

Alternative 3 includes up to 40 manufacturing sites. Eleven of these sites are assumed for analysis purposes, to be located near the communities of Guinda, Esparto, Madison, Yolo, Dunnigan, and the cities of Winters and Woodland. This alternative would use the same extraction or chemical synthesis processes as described under Alternative 2. While these systems can present health and safety hazards if not conducted

properly, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety.

Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cultivation sites to comply with zoning standards of the CLUO, and the provision of 54 new cannabis uses (cultivation, manufacturing, distribution, testing, microbusinesses, retail, processing, and nurseries) (see Table 2-4 and Exhibit 2-7).

Alternative 4 includes up to 20 manufacturing sites. Eight of these sites are assumed for analysis purposes, to be located near the communities of Guinda, Esparto, and Dunnigan and the City of Winters. This alternative would use the same extraction or chemical synthesis processes as described under Alternative 2. While these systems can present health and safety hazards if not conducted properly, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety.

Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes the relocation of 30 of the 78 existing and eligible cultivation sites to comply with zoning and buffering standards of the CLUO, and the provision of 52 new cannabis uses (cultivation, manufacturing, distribution, testing, microbusinesses, processing, and nurseries) (see Table 2-4 and Exhibit 2-8).

Alternative 5 includes up to 20 manufacturing sites. Seven of these sites are assumed for analysis purposes, to be located near the communities of Guinda, Esparto, and Dunnigan and the City of Winters. This alternative would use the same extraction or chemical synthesis processes as described under Alternative 2. While these systems can present health and safety hazards if not conducted properly, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety.

Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HAZ-2: Create a Significant Hazard to the Public or Environment through Reasonably Foreseeable Upset and/or Accident Conditions Involving Release of Hazardous Materials or Be Located on a Site Included on a List of Hazardous Material Sites Complied Pursuant to Government Code Section 65962.5, Which Would Create a Significant Hazard to the Public or Environment

Construction and operational activities associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could encounter contamination remaining from past practices. Implementation of CLUO Sections 8-2.1408(CC) and 8-2.1408(OO) would require cannabis uses to mitigate any conditions that present a public safety issue, while Section 8-2.1410(C)(3) would require the provision of a Phase I Environmental Site Assessment if potential contamination issues are identified. This impact would be **less than significant** for all alternatives.

As described in Section 3.9.1, "Environmental Setting," there are known sites in the County identified on lists of hazardous material sites under Government Code Section 65962.5; an additional unknown number of contamination sites also are likely present (see Exhibit 3.9-1). Construction activities that disturb subsurface materials could encounter contamination from past practices, placement of undocumented fill, or even authorized disposal of hazardous wastes from prior uses. Encountering these materials could expose workers, the public, or the environment to adverse effects depending on the volume, materials involved, and concentrations. As discussed under Impact HAZ-1, operational activities could also result in the accidental release of hazardous materials.

The CLUO includes the following requirements, which address public safety issues that could occur from encountering contamination:

- Section 8-2.1408(CC) Nuisance: Cannabis uses shall not create a public nuisance or adversely affect the health or safety of nearby residents or businesses by, among other things, creating dust, light, glare, heat, noise, noxious gases, odor, smoke, traffic, vibration, unsafe conditions, or other impacts, in excess of allowable thresholds, or be hazardous due to the use or storage of materials, processes, products, runoff, unauthorized releases or illegal disposal of wastes.

- Section 8-2.1408(OO) Site Design: Site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of odor control, air quality, noise control, workflow, safety and security, lighting, aesthetics, protection of resources (biological, cultural, trees, etc.) and other appropriate impact mitigation.

In addition to the above requirements, CLUO Section 8-2.14010(C)(3) would require permittees of sites suspected of potential contamination (e.g., previously used for agricultural processing, commercial, and industrial uses) to prepare a Phase I Environmental Site Assessment that would include recommendations for addressing identified contamination. Remediation of contaminated sites may include removal of contaminated soil and building materials, capping of contamination source, or other similar measures. These CLUO provisions are consistent with General Plan Policy HS-4.1 and Action HS-A47 regarding protection from hazardous materials and waste.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel, no hazardous material or contamination impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Exhibit 3.9-3 identifies known hazardous material and contamination sites in relation to existing and eligible cultivation sites under Alternative 1. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative. These nine sites could occur on or near a known contaminated site or be relocated to sites where previously unknown contamination is discovered through site construction. As noted above, implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential contamination issues and require remediation of any contamination that presents a public safety issue.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 3.9-4 identifies known hazardous material and contamination sites in relation to assumed cannabis uses under Alternative 2. As shown in Exhibit 3.9-4, this alternative could locate eight new cannabis uses near known contamination sites. Other new cannabis sites and relocated cultivation sites (assumed to be 30 under this alternative) may also be located on sites where previously unknown contamination is discovered through site construction. As noted above, implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential contamination issues and require remediation of any contamination that presents a public safety issue.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Exhibit 3.9-5 identifies known hazardous material and contamination sites in relation to assumed cannabis uses under Alternative 3. As shown in Exhibit 3.9-5, this alternative could locate 14 new cannabis uses near known contamination sites. Other new cannabis sites and relocated cultivation sites (assumed to be nine under this alternative) may also be located on sites where previously unknown contamination is discovered through site construction. As noted above, implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential contamination issues and require remediation of any contamination that presents a public safety issue.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Exhibit 3.9-6 identifies known hazardous material and contamination sites in relation to assumed cannabis uses under Alternative 4. As shown in Exhibit 3.9-6, this alternative could locate six new cannabis uses near known contamination sites. Other new cannabis sites and relocated cultivation sites (assumed to be nine under this alternative) may also be located on sites where previously unknown contamination is discovered through site construction. As noted above, implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential contamination issues and require remediation of any contamination that presents a public safety issue.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 3.9-7 identifies known hazardous material and contamination sites in relation to assumed cannabis uses under Alternative 5. As shown in Exhibit 3.9-7, this alternative could locate seven new cannabis uses near known contamination sites. Other new cannabis sites and relocated cultivation sites (assumed to be 30 under this alternative) may also be located on sites where previously unknown contamination is discovered through site construction. As noted above, implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential contamination issues and require remediation of any contamination that presents a public safety issue.

This impact would be **less than significant** under Alternative 5.

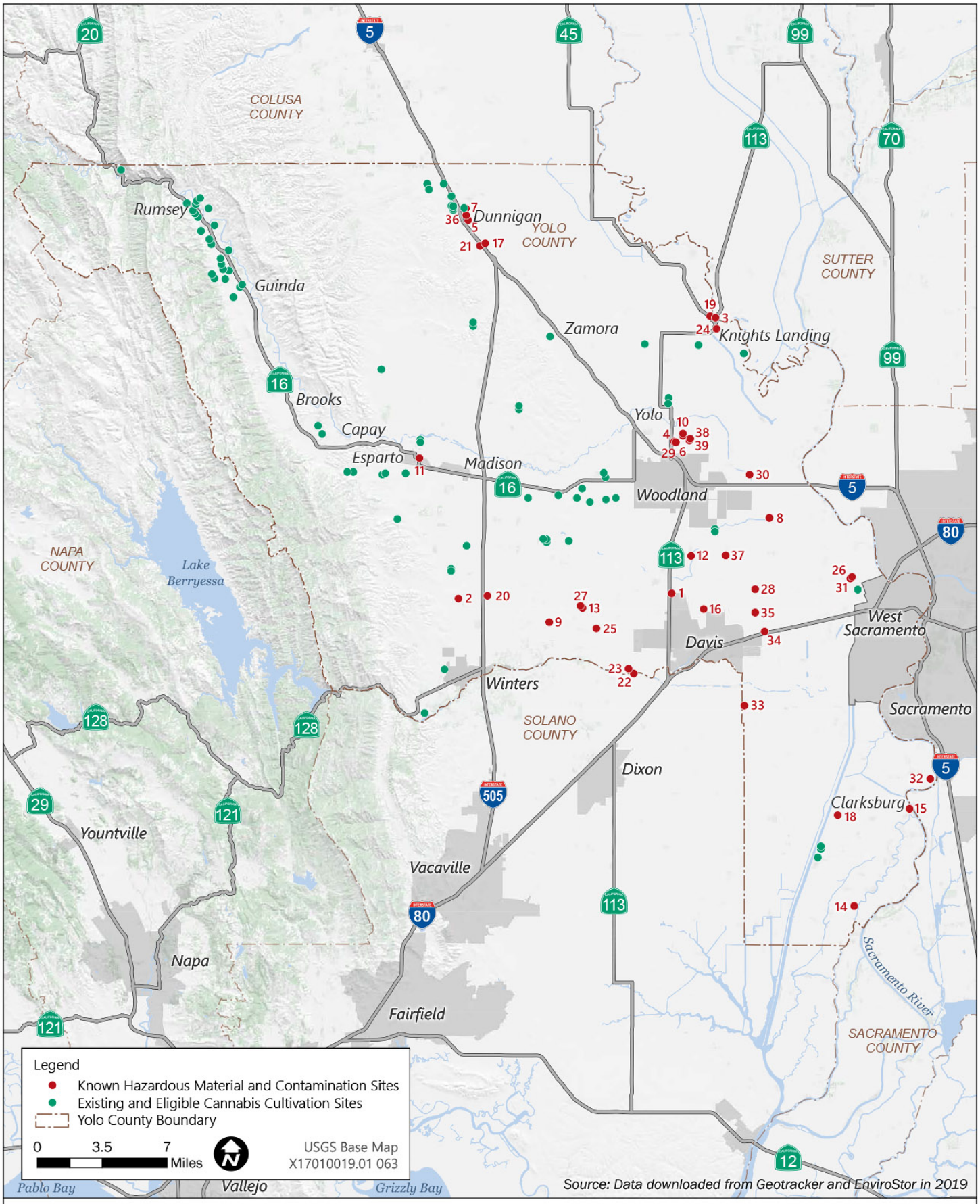


Exhibit 3.9-3 **Alternative 1 Cannabis Uses and Known Hazardous Material and Contamination Sites**

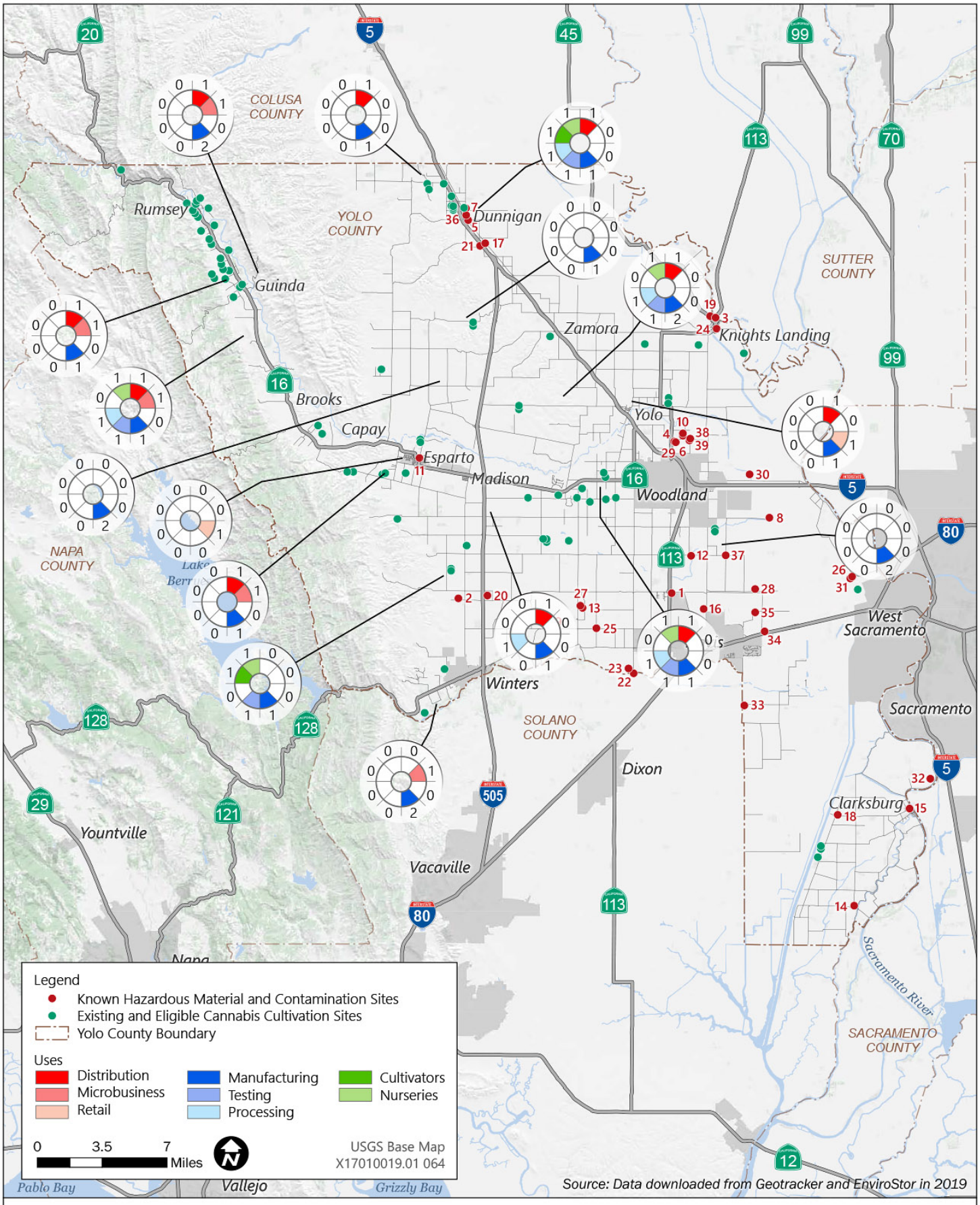


Exhibit 3.9-4 **Alternative 2 Cannabis Uses and Known Hazardous Material and Contamination Sites**

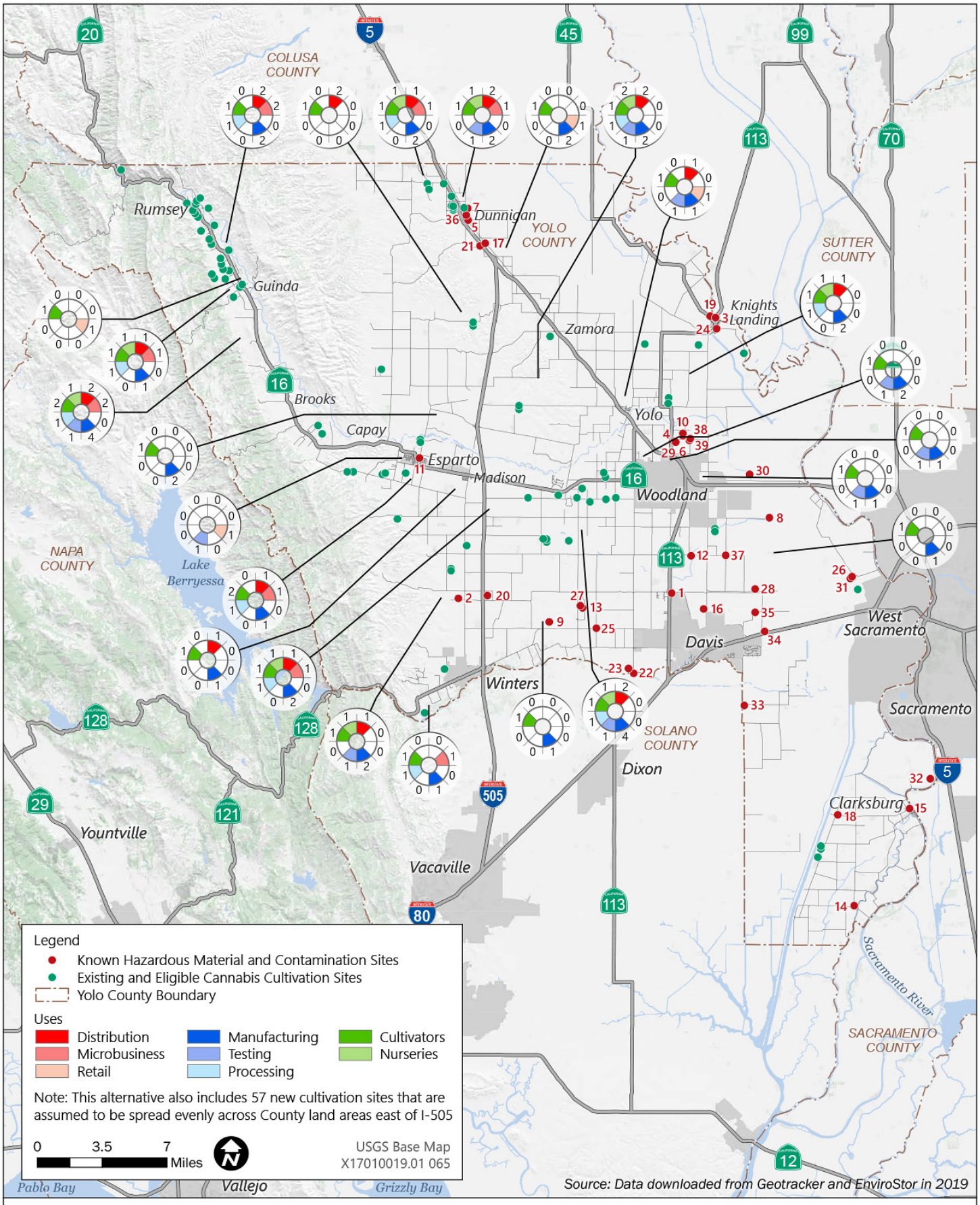


Exhibit 3.9-5 **Alternative 3 Cannabis Uses and Known Hazardous Material and Contamination Sites**

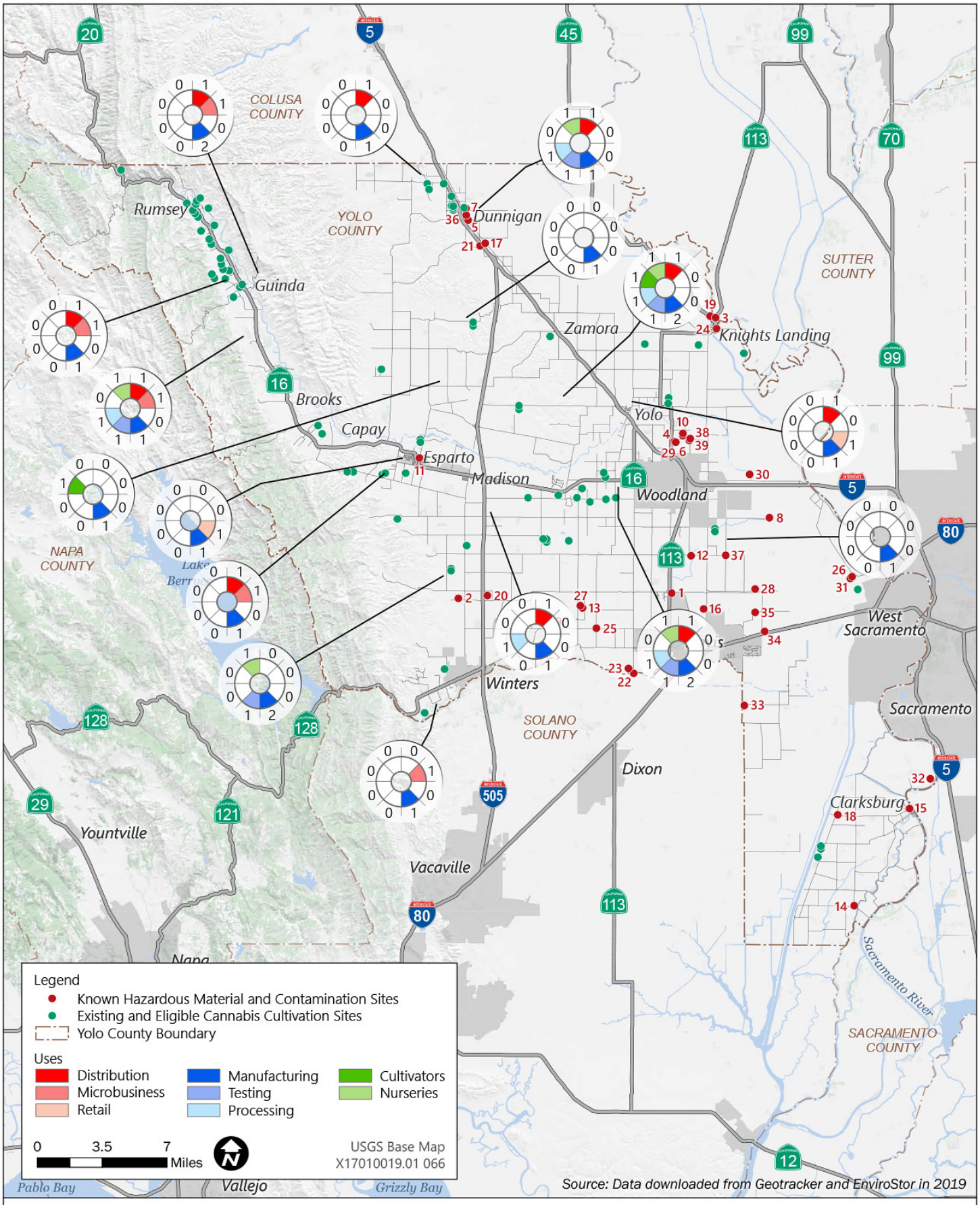


Exhibit 3.9-6 **Alternative 4 Cannabis Uses and Known Hazardous Material and Contamination Sites**

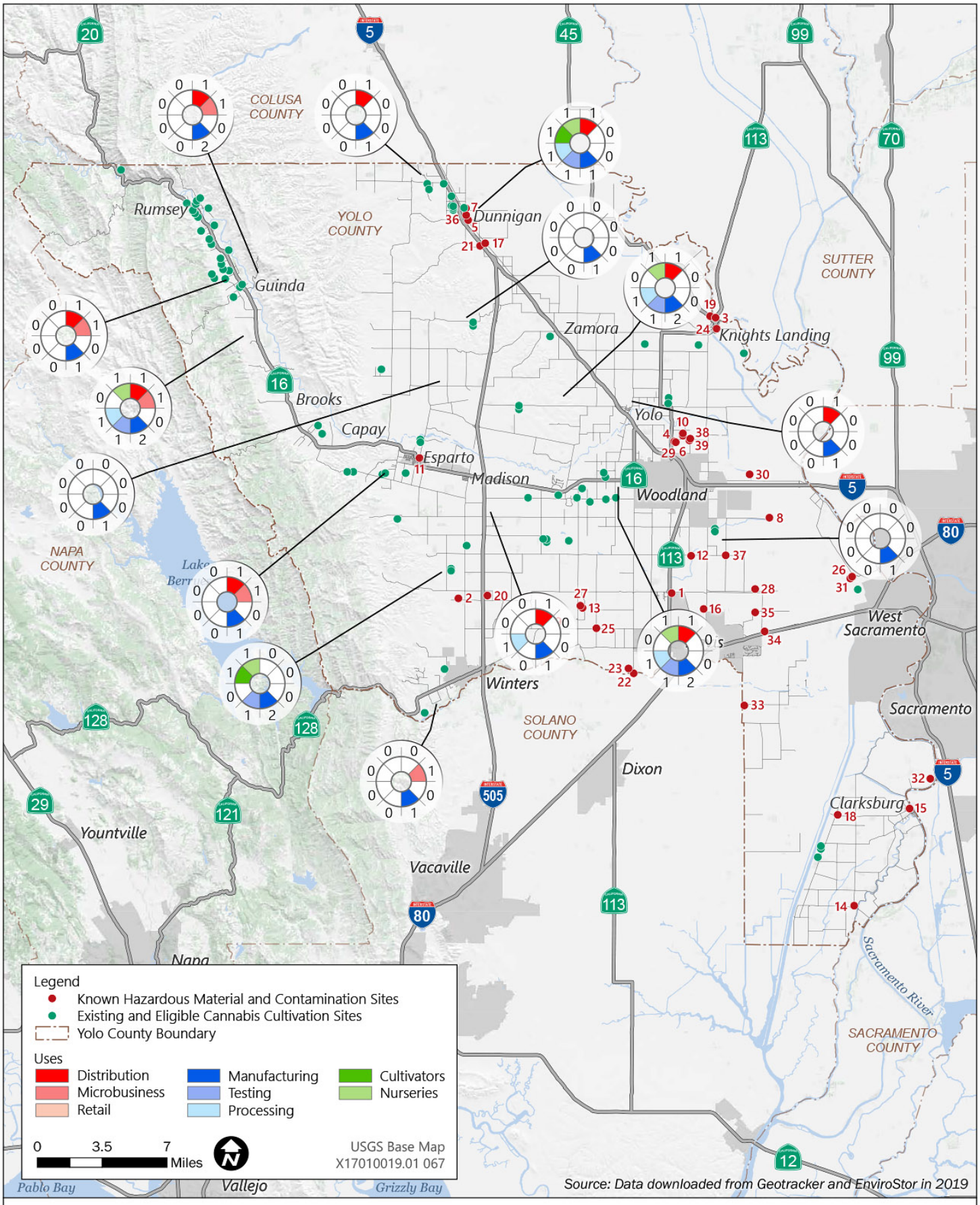


Exhibit 3.9-7 **Alternative 5 Cannabis Uses and Known Hazardous Material and Contamination Sites**

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HAZ-3: Emit Hazardous Emissions or Handle Hazardous Materials within 0.25 Mile of an Existing or Proposed School

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would involve the use of pesticides, herbicides, rodenticides, and other chemicals for growing, processing, and manufacturing of cannabis and cannabis products. Materials used in processing, testing, manufacturing, and other activities would be used in accordance with the CLUO and state regulations to avoid the potential for accident or upset conditions. This impact would be **less than significant** for all alternatives.

There are 73 public schools (K–12) throughout the cities and unincorporated area of Yolo County. Similar to many agricultural operations, commercial cannabis operations do involve the use of pesticides, herbicides, rodenticides, and other chemicals for growing, processing, and manufacturing of cannabis and cannabis products.

As described in Impact HAZ-1, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health (including schools) and safety associated with the use of hazardous materials.

Cannabis uses and the associated use of pesticides and other hazardous materials would also be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health (including schools) and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts related to the use and handling of hazardous materials.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel and would not involve large-scale use of pesticides or hazardous materials, no impacts on schools are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 assumes the establishment of 1,000-foot buffers between schools and outdoor cultivation sites (existing and relocated outdoor cultivation sites).

As described in Impact HAZ-1, cultivation sites may use pesticides or other hazardous materials that would be regulated under state requirements and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO, described above. These requirements restrict the type and extent of pesticides that can be used and include storage and handling requirements designed to protect human health and the environment (e.g., no use of restricted pesticides, use of storage requirements that include leak containment). Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts on public schools related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the establishment of 1,000-foot buffers between schools and outdoor cannabis uses (outdoor cultivation sites, outdoor nurseries, and outdoor cultivation at microbusinesses). However, no buffers are assumed for cannabis uses located in a greenhouse or building.

As described in Impact HAZ-1, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety. Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts on public schools related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumes the establishment of 75-foot buffers between schools and outdoor cannabis uses (outdoor cultivation sites, outdoor nurseries, and outdoor cultivation at microbusinesses). However, no buffers are assumed for cannabis uses located in a greenhouse or building.

As described in Impact HAZ-1, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety. Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts on public schools related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes no buffers from schools as it would not include any outdoor cannabis uses.

As described in Impact HAZ-1, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety. Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts on public schools related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes the establishment of 1,000-foot buffers between schools and outdoor cannabis uses (outdoor cultivation sites, outdoor nurseries, and outdoor cultivation at microbusinesses). However, no buffers are assumed for cannabis uses located in a greenhouse or building.

As described in Impact HAZ-1, CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), identified above, require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety. Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements noted above, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of these regulations, along with compliance with manufacturers' instructions, would avoid significant impacts on public schools related to the use and handling of hazardous materials.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HAZ-4: Result in a Safety Hazard or Noise for People Residing or Working within 2 Miles of a Public Airport or Public Use Airport

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could involve locating cannabis uses near airports. The CLUO would require applications for new cannabis-related development near airports, and all such development would be required to comply with the applicable development standards and the associated Airport Land Use Compatibility Plan. Further, new cannabis uses would not result in new sensitive land uses or attract dense populations. This impact would be **less than significant** for all alternatives.

Agricultural uses, such as cannabis cultivation, are not a regulated use under the CLUPs. However, noncultivation cannabis uses (manufacturing, distribution, testing, microbusinesses, retail, processing, and nurseries) would be required to comply with the applicable CLUP requirements for density and building heights as noted in Section 3.9.2, "Regulatory Setting." Sections 8-2.1408(F) and 8-2.1408(OO) of the CLUO require that design and construction of sites, as well as buildings and structures, shall comply with all applicable Yolo County codes, standards, regulations, and guidelines. This would include applicable restrictions associated with airport safety requirements for land uses consistent with General Plan Policies HS-5.1, HS-5.2, and HS-5.3.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel, no impact on airport safety is expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain existing and eligible cannabis cultivation shown in Exhibit 2-4. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. No expansion of cannabis uses would occur that could result in conflicts with airport safety.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits
Alternative 2 is assumed to retain the 78 existing or eligible cannabis cultivation sites (30 cultivation sites are assumed to relocate in order to comply with CLUO zoning and buffering standards) and result in two new cultivation sites. This alternative also assumes 52 noncultivation cannabis uses (manufacturing, distribution, testing, microbusinesses, retail, processing, and nurseries).

This alternative is assumed to expand cannabis uses that would provide approximately 700 new employees countywide. Some of these employees may be located near an airport. New cannabis uses would be required with applicable County requirements regarding airport safety. Land use compliance and airport safety are addressed through compliance with the CLUPs and Yolo County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes. These requirements would be required to be demonstrated in cannabis use site designs as required under CLUO Sections 8-2.1408(F) and 8-2.1408(OO).

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits
Alternative 3 is assumed to retain the 78 existing or eligible cannabis cultivation sites (nine cultivation sites are assumed to relocate in order to comply with CLUO zoning standards) and 82 new cultivation sites. Alternative 3 would also include 104 noncultivation cannabis uses.

This alternative is assumed to expand cannabis uses that would provide approximately 1,400 new employees countywide. Some of these employees may be located near an airport. New cannabis uses would be required with applicable County requirements regarding airport safety. Land use compliance and airport safety are addressed through compliance with the CLUPs and Yolo County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes. These requirements would be required to be demonstrated in cannabis use site designs as required under CLUO Sections 8-2.1408(F) and 8-2.1408(OO).

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types
Alternative 4 is assumed to retain the 78 existing or eligible cannabis cultivation sites (nine cultivation sites are assumed to relocate in order to comply with CLUO zoning standards) and two new cultivation sites. Existing outdoor cannabis cultivation would convert to mixed-light or indoor cultivation that would operate in greenhouses or indoor buildings. Alternative 4 would also include 52 noncultivation cannabis uses.

This alternative would expand cannabis uses that would provide approximately 700 new employees countywide. Some of these employees may be located near an airport. New cannabis uses would be required with applicable County requirements regarding airport safety. Land use compliance and airport safety are addressed through compliance with the CLUPs and Yolo County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes. These requirements would be required to be demonstrated in cannabis use site designs as required under CLUO Sections 8-2.1408(F) and 8-2.1408(OO).

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail
Alternative 5 is assumed to retain the 78 existing or eligible cannabis cultivation sites (30 cultivation sites are assumed to relocate in order to comply with CLUO zoning and buffering standards) and result in two new cultivation sites. This alternative also assumes 50 new noncultivation cannabis uses (manufacturing, distribution, testing, microbusinesses, processing, and nurseries).

This alternative is assumed to expand cannabis uses that would provide approximately 670 new employees countywide. Some of these employees may be located near an airport. New cannabis uses would be required with applicable County requirements regarding airport safety. Land use compliance and airport safety are addressed through compliance with the CLUPs and Yolo County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes. These requirements would be required to be demonstrated in cannabis use site designs as required under CLUO Sections 8-2.1408(F) and 8-2.1408(OO).

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HAZ-5: Impair or Physically Interfere with Emergency Response or Evacuation Plans

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not alter Yolo County's roadway network or create any physical barriers that would impede emergency response or implementation of evacuation plans. The CLUO would require applications for new cannabis-related development to comply with the applicable County fire and access standards. This impact would be **less than significant** for all alternatives.

As noted in Section 3.9.2, "Regulatory Setting," Yolo County Emergency Evacuation Procedures identify evacuation zones to be used during large scale evacuation and shelter in place events. Evacuation zones are identified at the "Know Your Zone" web mapping application at evacuate.yolocounty.org. Evacuation routes generally follow major highways and roads, and rally points are identified in each zone.

Sections 8-2.1408(F) and 8-2.1408(OO) of the CLUO require that design and construction of sites comply with all applicable Yolo County codes, standards, regulations, and guidelines. In addition, Sections 8.2-1408(K) and 8.2-1408(Q) require that adequate site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and Yolo County Improvement Standards.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel, no impacts on emergency response or evaluation are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

This alternative assumes the retention of the current extent of cannabis cultivation that is allowed in the County. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. Sections 8.2-1408(K) and 8.2-1408(Q) of the CLUO would require that adequate site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and County Improvement Standards for existing cultivation sites under Alternative 1. Implementation of these requirements would ensure that adequate access is provided for emergency use and evacuation.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 2-5, this alternative assumes the expansion cannabis uses to include noncultivation uses that for analysis purposes, could be concentrated along the State Route (SR) 16 corridor west of the City of Woodland (22 new cannabis sites). Sections 8.2-1408(K) and 8.2-1408(Q) of the CLUO would require that site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and

Yolo County Improvement Standards for cannabis sites. None of the assumed cannabis uses would alter the County's roadway facilities in a manner that would slow emergency response and evacuation. As identified in the traffic analysis provided in Section 3.14, "Transportation and Circulation," and in Appendix G, the cannabis uses assumed for this alternative would not create new significant traffic congestion.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, this alternative assumes the expansion cannabis uses to include noncultivation uses that for analysis purposes, could be concentrated along the SR 16 corridor west of the City of Woodland (40 new cannabis sites) and along I-5 (42 new cannabis sites). Sections 8.2-1408(K) and 8.2-1408(Q) of the CLUO would require that site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and Yolo County Improvement Standards for cannabis sites. None of the assumed cannabis uses would alter the County's roadway facilities in a manner that would slow emergency response and evacuation. As identified in the traffic analysis provided in Section 3.14, "Transportation and Circulation," and in Appendix G, the cannabis uses assumed for this alternative would not create new significant traffic congestion.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 2-7, this alternative assumes the expansion cannabis uses to include noncultivation uses that for analysis purposes, could be concentrated along the SR 16 corridor west of the City of Woodland (24 new cannabis sites). Sections 8.2-1408(K) and 8.2-1408(Q) of the CLUO would require that site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and Yolo County Improvement Standards for cannabis sites. None of the assumed cannabis uses would alter the County's roadway facilities in a manner that would slow emergency response and evacuation. As identified in the traffic analysis provided in Section 3.14, "Transportation and Circulation," and in Appendix G, the cannabis uses assumed for this alternative would not create new significant traffic congestion.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 2-8, this alternative assumes the expansion cannabis uses to include noncultivation uses that for analysis purposes, could be concentrated along the SR 16 corridor west of the city of Woodland (21 new cannabis sites). Sections 8.2-1408(K) and 8.2-1408(Q) of the CLUO would require that site access is adequately designed and maintained for fire and emergency access consistent with Fire Code and Yolo County Improvement Standards for cannabis sites. None of the assumed cannabis uses would alter the County's roadway facilities in a manner that would slow emergency response and evacuation. As identified in the traffic analysis provided in Section 3.14, "Transportation and Circulation," and in Appendix G, the cannabis uses assumed for this alternative would not create new significant traffic congestion.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HAZ-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildfires, Exacerbate Wildfire Risks from Installation of Infrastructure, or Expose People or Structures to Significant Risks Due to Postfire Conditions

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, could locate cannabis uses in wildfire hazard areas and increase wildfire risks. Implementation of the CLUO and compliance with California Fire Code requirements would ensure that cannabis uses incorporate fire protection measures that would avoid an increased risk of wildfire and increased exposure to wildfire hazards and associated affects from a wildfire event. This impact would be **less than significant** for all alternatives.

As shown in Exhibit 3.9-2, the western portion of County is located within a State Responsibility Area with fire severity ratings of moderate for most of the area and high and very high for hillside and mountain areas. There were two major wildfires in the County in 2018 involving a total of 91,110 acres between Yolo County and Napa County. The development of new cannabis uses could increase wildfire risk to residents and buildings through:

- placement of new structures and increased numbers of people in areas with moderate to high wildfire risk,
- installation of electrical infrastructure that would introduce potential ignition sources, and
- use of chemicals and chemical processes that would be potential ignition sources if handled incorrectly.

Increased potential for wildfires could also pose risks to public health through smoke conditions that may create unhealthy levels of particulate matter. Exposure to $PM_{2.5}$ can result in significant health problems, including aggravated asthma, increased susceptibility to respiratory infections, and increased risk of heart attacks and arrhythmias in people with heart disease (Sacramento Metropolitan Air Quality Management District 2019).

Construction of cannabis uses on areas previously burned could also create soil erosion and stability issues due to the loss of vegetation.

In addition to California Fire Code requirements regarding construction requirements for buildings, state regulations that address and minimize wildfire hazards through vegetation management and building design that would apply to cannabis uses include the following:

- PRC Section 4291: This section requires a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material to maintain defensible space of 100 feet from each side and from the front and rear of the structure. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.

- CCR Title 24, Part 2, Section 701A.3.2 (New Buildings Located in Any Fire Hazard Severity Zone): These standards for building design associated with roof structure, attic ventilation, and exterior walls to prevent the intrusion of flames and embers.

CCR Title 17, Division 1, Chapter 13 provides the following fire safety requirements for cannabis manufacturing uses, which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to accepted engineering practices that meet fire code and avoid accidental fire events:

- Section 40223(b): Ethanol extraction operations shall be approved by the local fire code official and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

- Section 40225(b): Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for use by the local fire code official and comply with any required fire, safety, and building code requirements related to the processing, handling, and storage of the applicable solvent or gas.

- Section 40225(d): The licensee shall establish and implement written procedures to document that the closed loop extraction system is maintained in accordance with the equipment manufacturer specifications and to ensure routine verification that the system is operating in accordance with specifications and continues to comply with fire, safety, and building code requirements.

- Section 40280(a): The licensee shall implement a training program to ensure that all personnel present at the premises are provided information and training that covers health and safety hazards and emergency response procedures.

The CLUO provides the following performance standards, which address fire hazards through fire breaks; provision of emergency and fire access to sites and buildings; and compliance with building, electrical, and fire codes that are intended to ensure that cannabis uses do not create a new fire hazard. Permittees would be required to demonstrate compliance with the fire hazard protection measures through site design details under Section 8-2.1408(OO):

- Section 8-2.1408(F) requires compliance with the California Building, Electrical, and Fire Codes as adopted by the County, and ensures adequate access, water availability, and other conditions for fire protection as applicable for the location and use/activity. Permittees shall manage vegetation and maintain fire breaks to minimize fire danger.

- Section 8-2.1408(K) requires all operations to have a rapid entry system for use by emergency personnel, and the permittee is required to "install/undertake appropriate actions and/or improvements identified by the County Engineer or District Fire Chief." This standard also requires that driveways provide an all-weather surface.

- Section 8-2.1408(Q) requires "all uses to comply with the California Building, Electrical, and Fire Codes to ensure adequate access, water availability, and other conditions for fire protection as applicable for the location and use/activity."

- Section 8-2.1408(FF) requires that sites have adequate parking that would not obstruct emergency or fire access to the area.

These CLUO standards are consistent with General Plan Policies HS-3.1, PF-5.3, and PF-5.8, and Actions HS-A38, HS-A39, HS-A44, HS-A45, and PF-A29, which identify the need for fire protection measures to address wildfire hazards.

As discussed in Section 3.7, "Geology and Soils," SWRCB Order WQ 2019-0001-DWQ contains requirements for cannabis cultivation that require the use of soil erosion and sedimentation controls (BMPs) for soil stability and the implementation of a Site Erosion and Sediment Control Plan and Disturbed Area Stabilization Plan for higher risk sites. CLUO Section 8-2.1408(V) includes soil stabilization requirements, and Section 8-2.1408(F) of the CLUO requires that design and construction of buildings and structures shall comply with all applicable County codes, standards, regulations, and guidelines. Compliance with these standards would ensure stability of cannabis sites that may be located on parcels previously burned by a wildfire.

When hillsides are denuded of their surface vegetation and soil cover following a fire, resulting increases in runoff and erosion may occur. Burned areas generally regenerate naturally within a few (two to four) years, and these post-fire risks are significantly reduced as bare soil revegetates. This is less of an issue in agricultural areas where exposure to people and structures is minimal. Section 8-2.1408(V) of the CLUO includes the following soil stabilization requirements and performance standards for all cannabis uses, that would also apply sites that have been burned:

> Grading/Land Clearing – No grading or land clearing for cannabis activities may occur without prior authorization pursuant to an approved Cannabis Use Permit, and a County Grading Permit, if applicable. Grading or land clearing in advance of approved permits is grounds for denial/revocation of any County Cannabis Use Permit and/or County Cannabis License. Grading and drainage shall be implemented in a manner that prevent soil erosion, and the accumulation of water, except in areas intended for retention. Grading and/or land clearing requires the issuance of a County Grading Permit and must be conducted subject to a State construction storm water permit, if applicable. CDFA licensees shall demonstrate compliance with the principles and guidelines for discharge and water quality contained in the Cannabis Cultivation Policy of the State Water Resources Control Board. Excessive grading and disturbance shall be avoided. Cannabis activities on slopes of ten percent or greater require review and approval by the County Engineer to ensure the application of appropriate environmental protections and best management practices to control for erosion, sedimentation, and water quality to acceptable levels. A geotechnical analysis by a licensed civil engineer in the State of California may be required at the County's discretion, to minimize erosion, sedimentation, and water quality to acceptable levels.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this use, no wildfire hazard impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

This alternative assumes the retention of the current extent of cannabis cultivation that is allowed in the County. As shown in Exhibit 3.9-8, there are several cultivation sites within the moderate fire hazard severity zone and one eligible site within the very high fire hazard severity zone. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO.

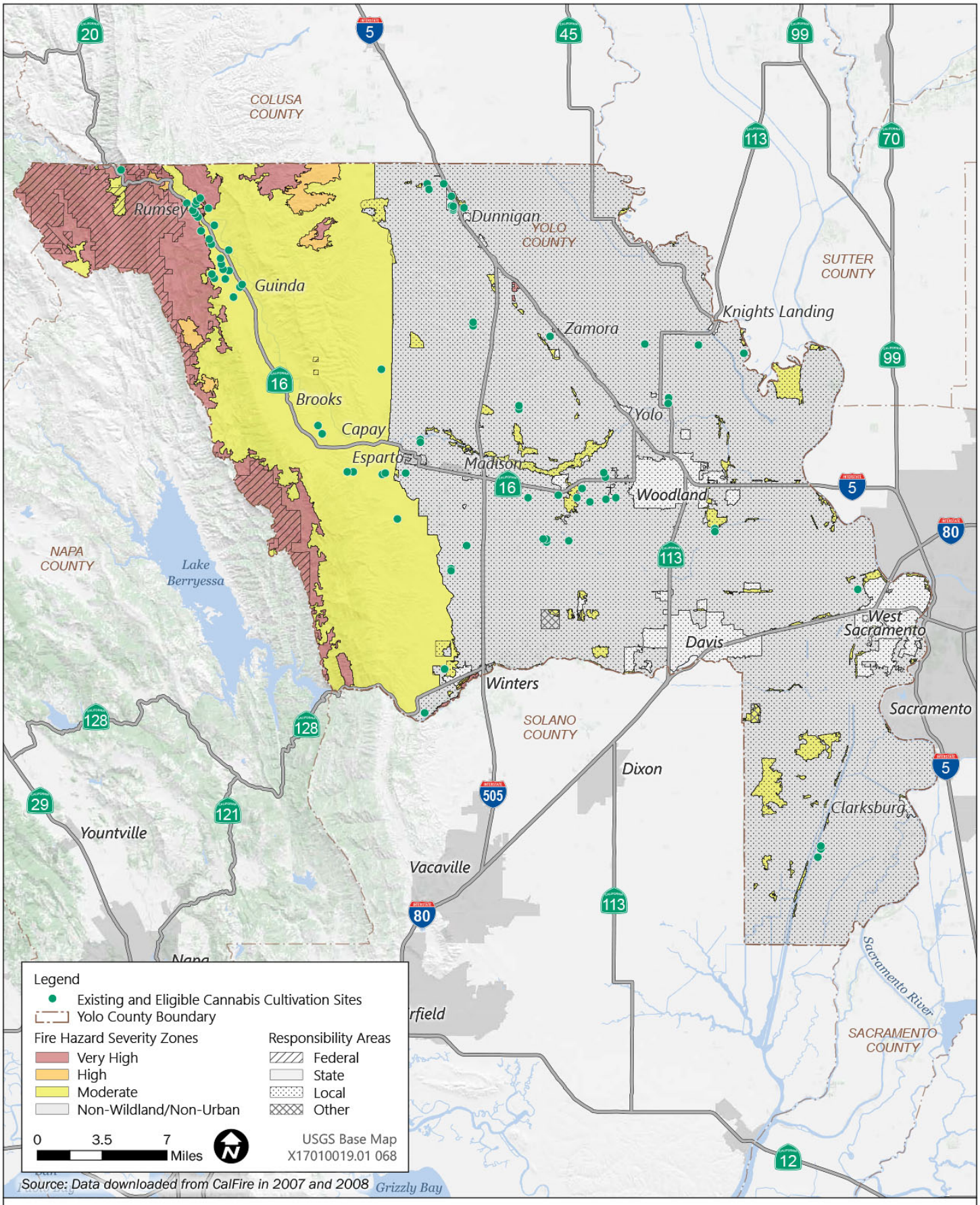
Cannabis sites would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Compliance with these standards would ensure that relocated cultivation uses do not create or increase wildfire hazards to residents or buildings.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

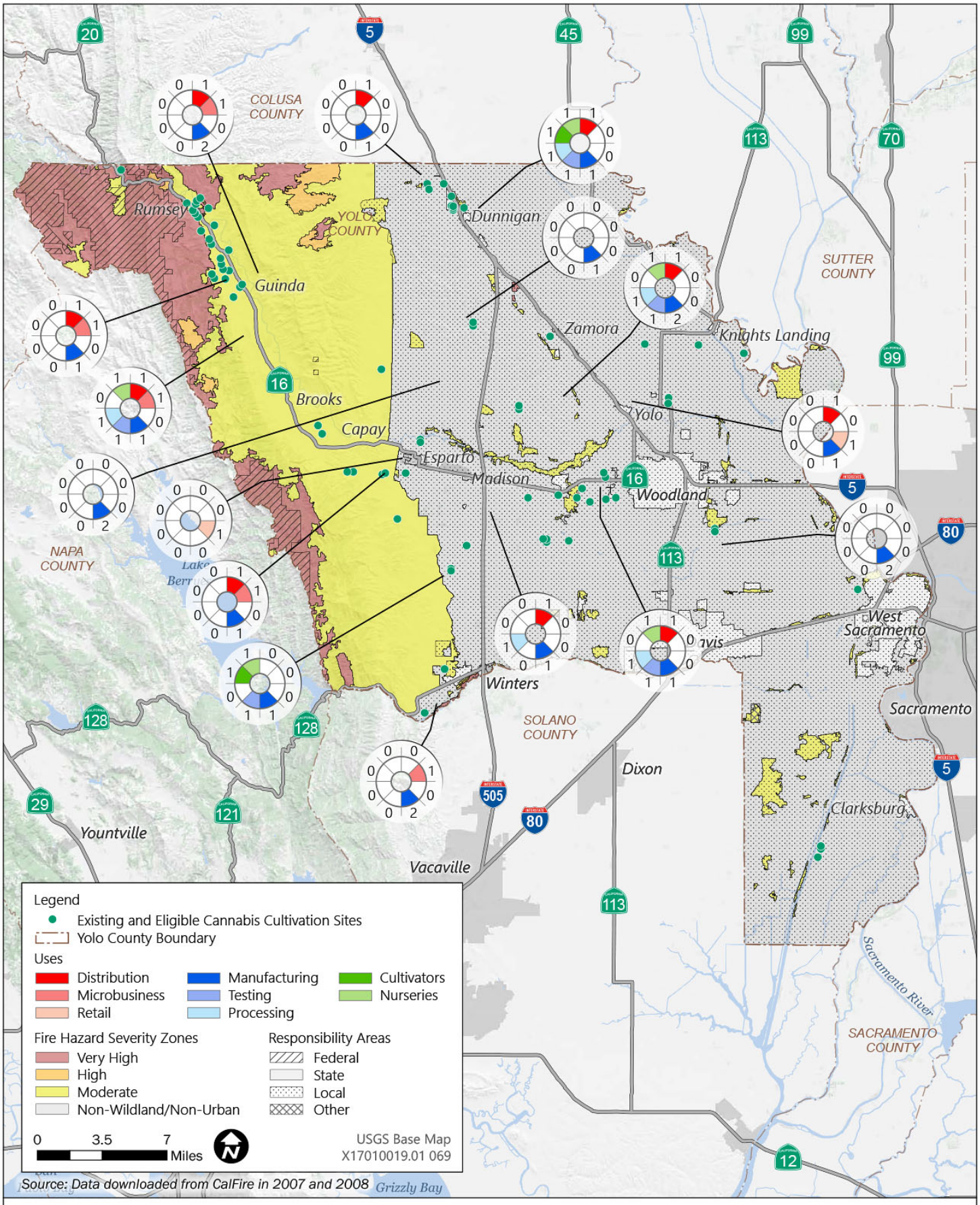
As shown in Exhibit 3.9-9, Alternative 2 is assumed to locate 21 new cannabis uses within the moderate fire hazard severity zone. The assumed 30 relocations of the 78 existing and eligible cultivation sites to comply with the zoning and buffering standards of the CLUO may also place additional cannabis uses in this area. Manufacturing operations (six are assumed to be located in the moderate fire hazard severity zone) could employ volatile extraction methods to create cannabis products. Volatile extraction may involve the use of butane, carbon dioxide, chlorofluorocarbons, hydrocarbon, or other fluorinated gases. These facilities could create new ignition sources for wildfires or could worsen a wildfire event should the facility catch fire.

Cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings.



Source: Data downloaded from CalFire in 2007 and 2008

Exhibit 3.9-8 **Alternative 1 Cannabis Uses and Fire Hazard Designations**



Source: Data downloaded from CalFire in 2007 and 2008

Exhibit 3.9-9 **Alternative 2 Cannabis Uses and Fire Hazard Designations**

ASCENT ENVIRONMENTAL

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 3.9-10, Alternative 3 is assumed to locate 35 new cannabis uses within the moderate fire hazard severity zone. The assumed nine relocations of the 78 existing and eligible cultivation sites to comply with the zoning standards of the CLUO may also place additional cannabis uses in this area. Manufacturing operations (nine are assumed to be located in the moderate fire hazard severity zone) could employ volatile extraction methods to create cannabis products. Volatile extraction may involve the use of butane, carbon dioxide, chlorofluorocarbons, hydrocarbon, or other fluorinated gases. These facilities could create new ignition sources for wildfires or could worsen a wildfire event should the facility catch fire.

Cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 3.9-11, Alternative 4 is assumed to locate 20 new cannabis uses within the moderate fire hazard severity zone. The assumed nine relocations of the 78 existing and eligible cultivation sites to comply with the zoning standards of the CLUO may also place additional cannabis uses in this area. Manufacturing operations (seven are assumed to be located in the moderate fire hazard severity zone) could employ volatile extraction methods to create cannabis products. Volatile extraction may involve the use of butane, carbon dioxide, chlorofluorocarbons, hydrocarbon, or other fluorinated gases. These facilities could create new ignition sources for wildfires or could worsen a wildfire event should the facility catch fire.

Cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 3.9-12, Alternative 5 is assumed to locate 21 new cannabis uses within the moderate fire hazard severity zone. The assumed 30 relocations of the 78 existing and eligible cultivation sites to comply with the zoning and buffer standards of the CLUO may also place additional cannabis uses in this area. Manufacturing operations (eight are assumed to be located in the moderate fire hazard severity zone) could employ volatile extraction methods to create cannabis products. Volatile extraction may involve the use of butane, carbon dioxide, chlorofluorocarbons, hydrocarbon, or other fluorinated gases. These facilities could create new ignition sources for wildfires or could worsen a wildfire event should the facility catch fire.

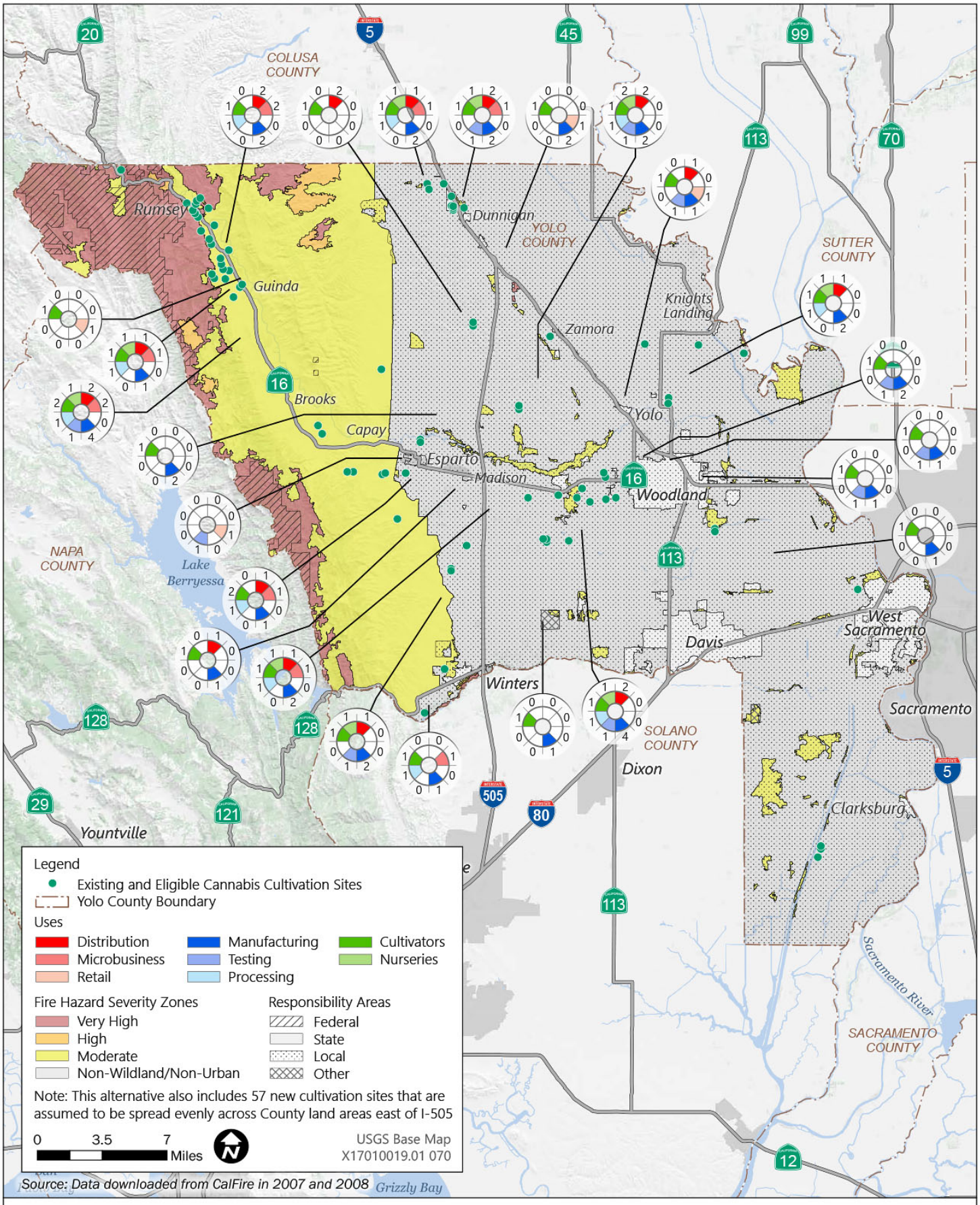
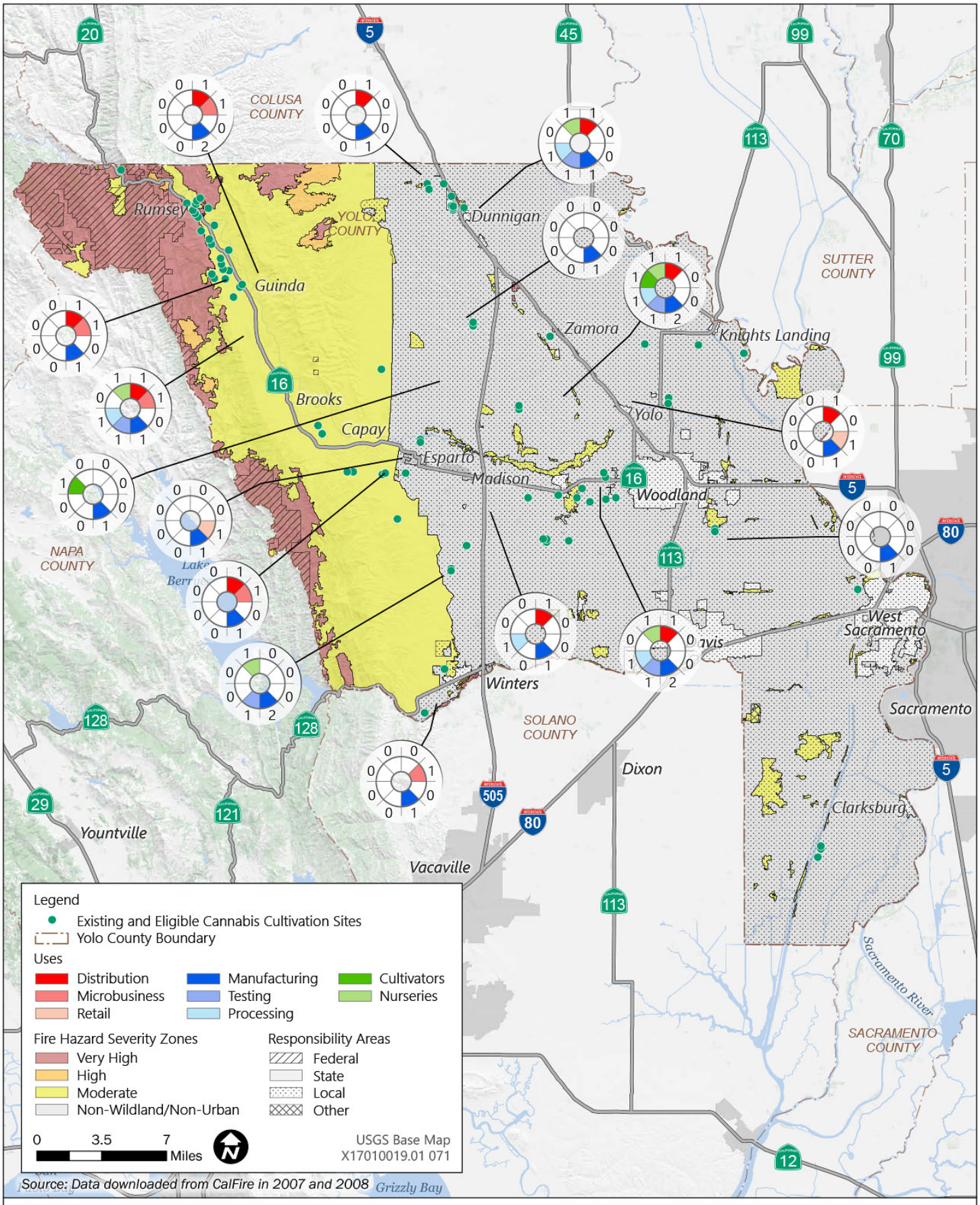
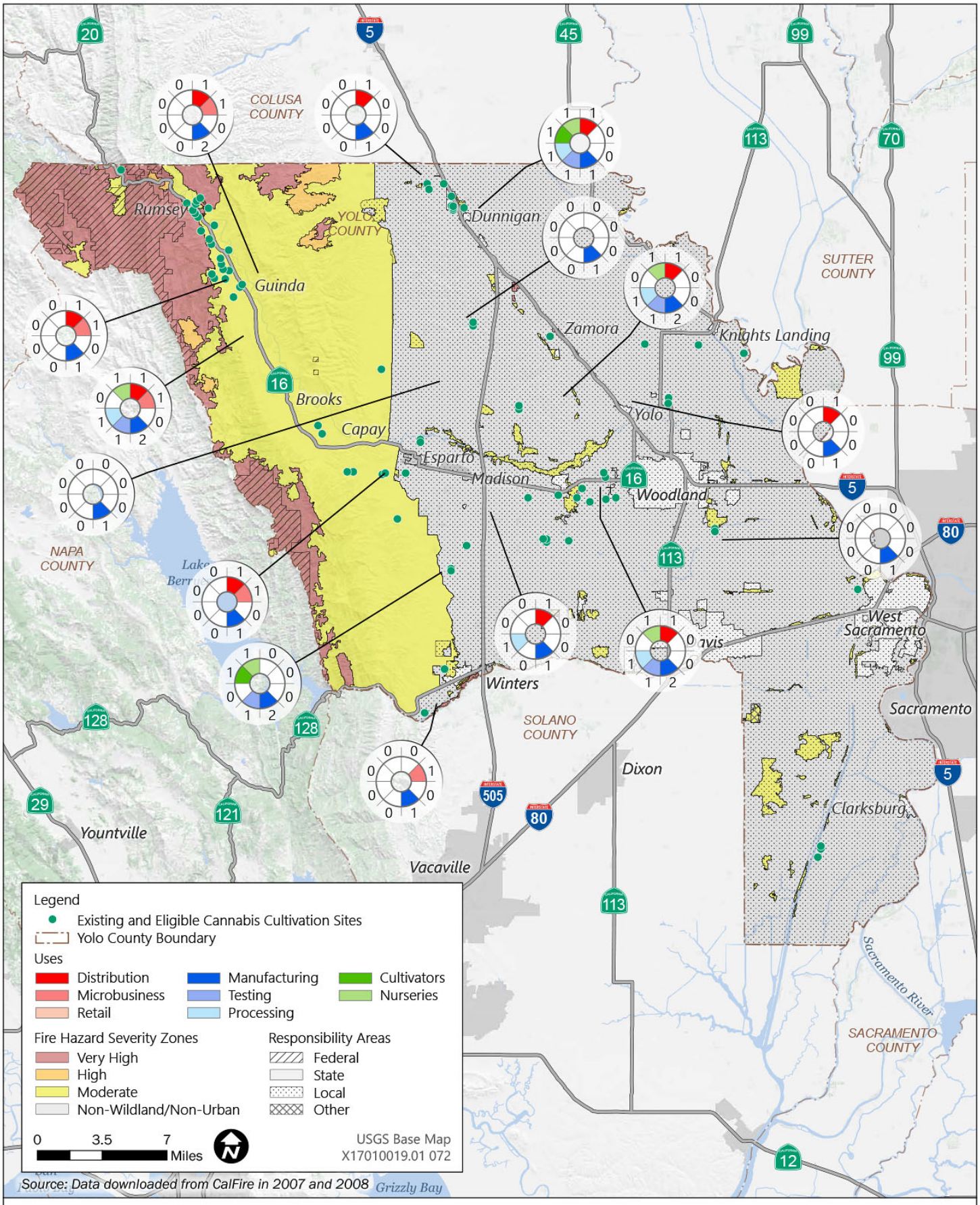


Exhibit 3.9-10 **Alternative 3 Cannabis Uses and Fire Hazard Designations**



Source: Data downloaded from CalFire in 2007 and 2008

Exhibit 3.9-11 **Alternative 4 Cannabis Uses and Fire Hazard Designations**



Source: Data downloaded from CalFire in 2007 and 2008

Exhibit 3.9-12 **Alternative 5 Cannabis Uses and Fire Hazard Designations**

Cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

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3.10 HYDROLOGY AND WATER QUALITY

This section describes the existing hydrological setting within the County, including runoff, groundwater conditions, storm drainage, and flood control. Regulations and policies affecting local hydrology and water quality are discussed, and impacts are identified that may result from adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO. This section identifies water demand resulting from cannabis uses and impacts to water supply and groundwater resources.

In response to the Notice of Preparation (NOP) for this EIR, comments were received from the Central Valley Regional Water Quality Control Board (RWQCB), which provided a list of water resources regulations; the Yocha Dehe Wintun Nation, which commented on water quality and surface water flows; and the California Department of Food and Agriculture (CDFA), which commented on cumulative effects on underlying aquifers and related streams associated with groundwater pumping. Hydrologic and water quality regulations applicable to the CLUO are discussed below, in Section 3.10.2, "Regulatory Setting," Issues related to groundwater, water quality, and surface water flows associated with implementation of the CLUO are considered in the impact analysis below. The reader is referred to Appendix A for comment letters on the NOP.

3.10.1 Environmental Setting

Yolo County's existing conditions related to water resources, hydrology, and water quality are described below and major hydrologic features are shown in Exhibit 3.10-1.

YOLO COUNTY CLIMATE AND TOPOGRAPHY

Yolo County has a Mediterranean climate characterized by hot, dry summers and temperate, rainy winters. Yolo County is comprised of two distinct climate zones. The northern and central areas of Yolo County experience hot summers and moderately cold winters, while the southeastern County receives marine air influence from the San Joaquin–Sacramento Delta (Delta) regions that reduce the temperature extremes. During winter, fair weather alternates with periods of extensive clouds and precipitation. During the summer, temperatures generally average a high of 95° F and a low in the mid-50s. Winter temperatures average a high in the 50s, and low of 38–40° F. Much of the precipitation received in Yolo County falls on the Vaca Mountains (part of the Coast Range geomorphic province) to the west of the County, annually averaging 34 inches along the western edge of the County. Rainfall in the eastern County averages approximately 20 inches. Precipitation occurs primarily in the form of rain from October through April, with very little precipitation during the hot, dry summers (Yolo County 2009).

The highest elevations in the County are found along Little Blue Ridge and Blue Ridge (approximately 3,100 feet above mean sea level), decreasing to 5 feet above sea level near the Sacramento River on the eastern edge of the County, with the lowest portions of the Yolo Basin just below sea level. The County is located such that approximately the western 30 percent is located in California's Coast Ranges with the eastern remainder in the Great Valley. The Great Valley portion of the County consists of gently sloping to level alluvial areas, while the Coast Ranges part of the County consists of moderately sloping to very steep uplands and terraces and is characterized by northwest-southeast trending ridges and valleys (Yolo County 2009).

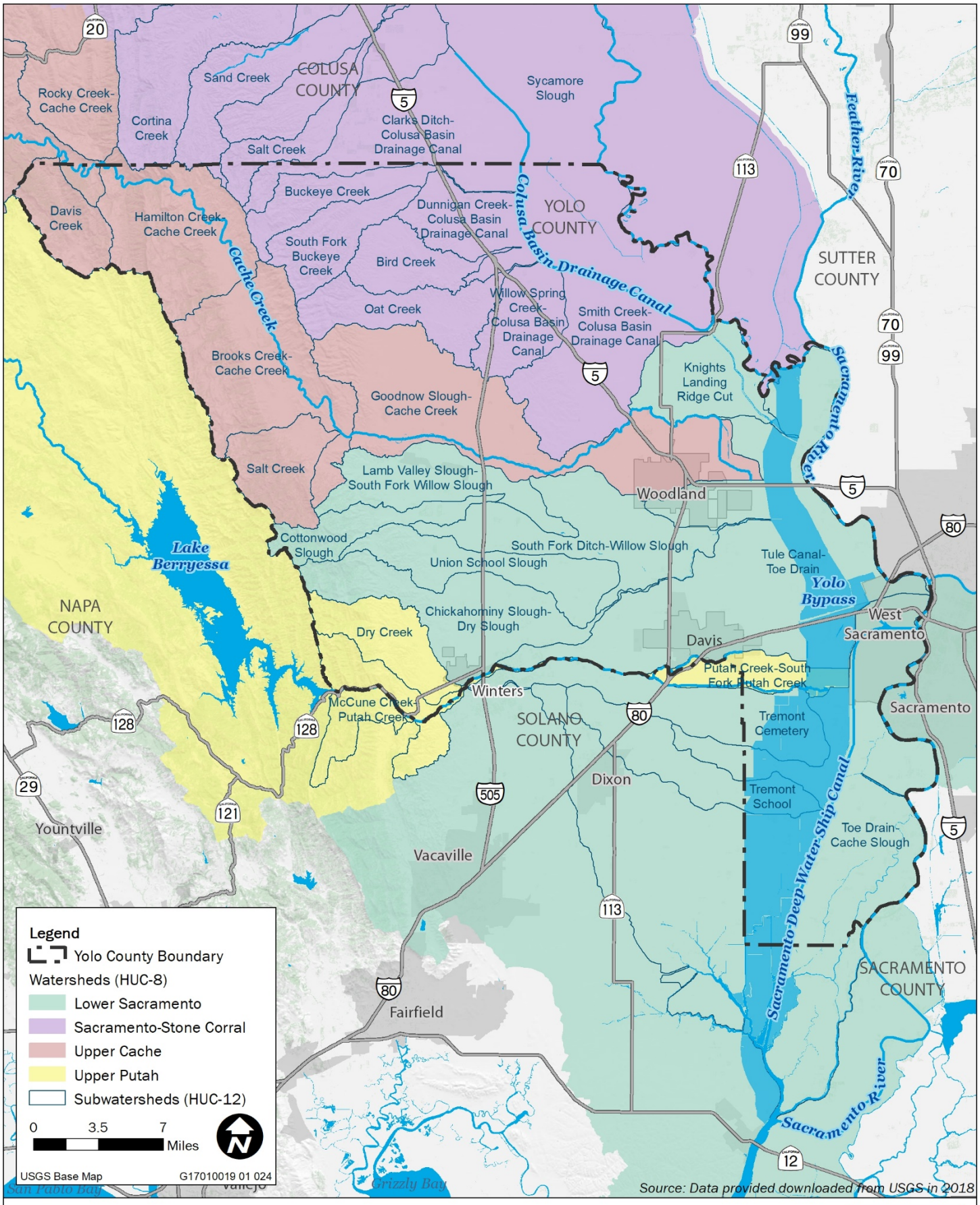


Exhibit 3.10-1 **Yolo County Hydrologic Features**

ASCENT ENVIRONMENTAL

SURFACE WATER

Yolo County is located within the Sacramento Hydrologic Region, as defined by the California Department of Water Resources (DWR), and includes the lower portions of both the Putah Creek and Cache Creek watersheds, as well as the surrounding low-lying drainage basins in the region, including the Colusa Basin drain (a portion of the Sacramento-Stone Corral watershed) and Lower Sacramento watershed. The key water features in Yolo County are Cache Creek (which captures the Cache Creek watershed), Putah Creek (which captures the Putah Creek watershed), and the Sacramento River (which captures the Sacramento-Stone Corral and Lower Sacramento watersheds). The Yolo Bypass is used to manage the much larger Sacramento River watershed flood flows. Cache and Putah Creek watersheds contribute the majority of the water entering Yolo County (Water Resources Association of Yolo County 2018). Exhibit 3.10-1 depicts Yolo County watersheds.

Cache Creek Watershed

The Cache Creek watershed encompasses approximately 1,165 square miles, and about 248 square miles of the watershed is located in Yolo County (approximately 21 percent). Cache Creek provides numerous benefits, including habitat and water supply. The Yolo County Flood Control and Water Conservation District (YCFCWCD) owns the Cache Creek Dam, located on Cache Creek approximately 5 miles downstream of Clear Lake outlet, and operates both Cache Creek Dam and Clear Lake in accordance with the Solano and Gopcevic Decrees. The North Fork Cache Creek subwatershed drains the area north of Clear Lake and includes Long Valley Creek, Wolf Creek, and Bartlett Creek. YCFCWCD owns and operates the Indian Valley Dam on the North Fork Cache Creek, which forms the Indian Valley Reservoir. Indian Valley Reservoir has a total storage capacity of 300,600 acre-feet (af), of which 40,000 af is dedicated to flood control. Bear Creek drains the area to the east of the North Fork Cache Creek, and its watershed lies entirely within Colusa County. Bear Creek flows into the main stem of Cache Creek at the border of Colusa and Yolo Counties (Water Resources Association of Yolo County 2018).

After Cache Creek flows into Yolo County, it continues through the agriculturally intensive Capay Valley until it reaches the Capay Diversion Dam, where some flows are diverted into YCFCWCD's irrigation system. Cache Creek continues downstream of Capay Dam, where it terminates in an area known as the Cache Creek Settling Basin, just upstream of the Yolo Bypass. The portion of Cache Creek from generally the Capay dam to the town of Yolo is referred to as Lower Cache Creek. This portion is an area of active aggregate mining and creek restoration regulated by the County's Cache Creek Area Plan.

Cache Creek is considered an intermittent stream, in that flows in the creek are inconsistent, and there are periods particularly during the summer when no streamflow is present. The Cache Creek Settling Basin is a component of the Sacramento River Flood Control Project. It was designed to trap sediments carried by Cache Creek and prevent them from being deposited in the Yolo Bypass, thereby maintaining the flood capacity of the Yolo Bypass. The settling basin has an overflow into the Yolo Bypass, which allows flow to enter the Sacramento River upstream of Rio Vista in Solano County (Water Resources Association of Yolo County 2018).

Putah Creek Watershed

The Putah Creek watershed encompasses approximately 654 square miles and is 50 miles wide, extending from Cobb Mountain (elevation 4,700 feet) in Lake County to the Yolo Bypass (elevation a few feet above sea level). Approximately 48 square miles of the watershed are located in Yolo County (approximately 7 percent). Tributaries to Putah Creek within Lake County include Harbin Creek, Big Canyon Creek, St. Helena Creek, Dry Creek, Coyote Creek, and Soda Creek. From Lake County, Putah Creek flows into Napa County and Lake Berryessa. The major tributaries within Napa County include Pope Creek, Chiles Creek, Capell Creek, and Eticuera Creek. Lake Berryessa has a storage capacity of 1,602,000 af and is regulated by Monticello Dam, which is owned by the U.S. Bureau of Reclamation and operated by Solano County Water Agency. From the outlet of Monticello Dam, Putah Creek flows into Solano County and Yolo County, where it eventually discharges to the Yolo Bypass (Water Resources Association of Yolo County 2018).

The South Fork of Putah Creek is an artificial channel constructed over a period of several decades, beginning in the 1870s. It departs from the natural creek channel approximately 1 mile upstream of Interstate 80 and flows directly east to the Yolo Bypass. The creek eventually abandoned its original channel (the North Fork) entirely and was named the South Fork Putah Creek for practical purposes. In the 1940s, the U.S. Army Corps of Engineers (USACE) constructed levees along the lowermost 9 miles of the South Fork channel as part of the Sacramento River Flood Control Project (Water Resources Association of Yolo County 2018).

Sacramento-Stone Corral Watershed

The Sacramento-Stone Corral watershed encompasses 1,884 square miles, most of which is located outside of Yolo County. Flows in the watershed generally travel from the coastal ranges in the west towards the Sacramento River. The majority of water from the watershed is discharged to the Sacramento River outside the region; however, the southernmost portion of the watershed flows into the County via the Colusa Basin Drain. This drain is a human-made channel designed to convey irrigation drainage and storm runoff from 32 ephemeral streams to the Knights Landing outfall gates for discharge into the Sacramento River. Seven of these streams originate in the Dunnigan Hills of Yolo County. The Sacramento-Stone Corral watershed comprises approximately 1,884 square miles in the Sacramento Valley and includes portions of Glenn, Colusa, and Yolo Counties. Approximately 250 square miles of the watershed is located in Yolo County (approximately 13 percent) (Water Resources Association of Yolo County 2018).

Lower Sacramento River Watershed

The Sacramento River forms the easterly border of the County. The entire Sacramento River watershed covers approximately 27,000 square miles in Northern California, of which the Lower Sacramento River watershed makes up 1,229 square miles (approximately 4.6 percent). Yolo County, which is near the downstream end of the Sacramento River, encompasses around 39 percent (approximately 476 square miles) of the Lower Sacramento River watershed. Because of its location and relatively small drainage area, the portion of the Sacramento River located within the County is influenced by the areas outside it (Water Resources Association of Yolo County 2018).

SURFACE WATER QUALITY

The 1972 Clean Water Act (CWA) established strategies for managing water quality. To support these strategies, Section 303(d) of the CWA requires the identification of water bodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired water bodies), and requires development of a total maximum daily load (TMDL) for each listing. The Central Valley RWQCB is the state agency responsible for identifying impaired water bodies within Yolo County. Impaired water bodies are published by the Central Valley RWQCB in an Integrated Report to be approved by both the State Water Resources Control Board (SWRCB) and the U.S. Environmental Protection Agency (EPA) and included on the Section 303(d) list of impaired waters requiring TMDLs.

On December 20, 2016, the Central Valley RWQCB approved and submitted the 2014 303(d) list to SWRCB, which will replace the current 303(d) list after being approved by SWRCB and EPA. The 2014 303(d) list includes updates to the Central Valley region which can be seen in Table 3.10-1. Exhibit 3.10-2 shows the impaired water bodies located within the Yolo County.

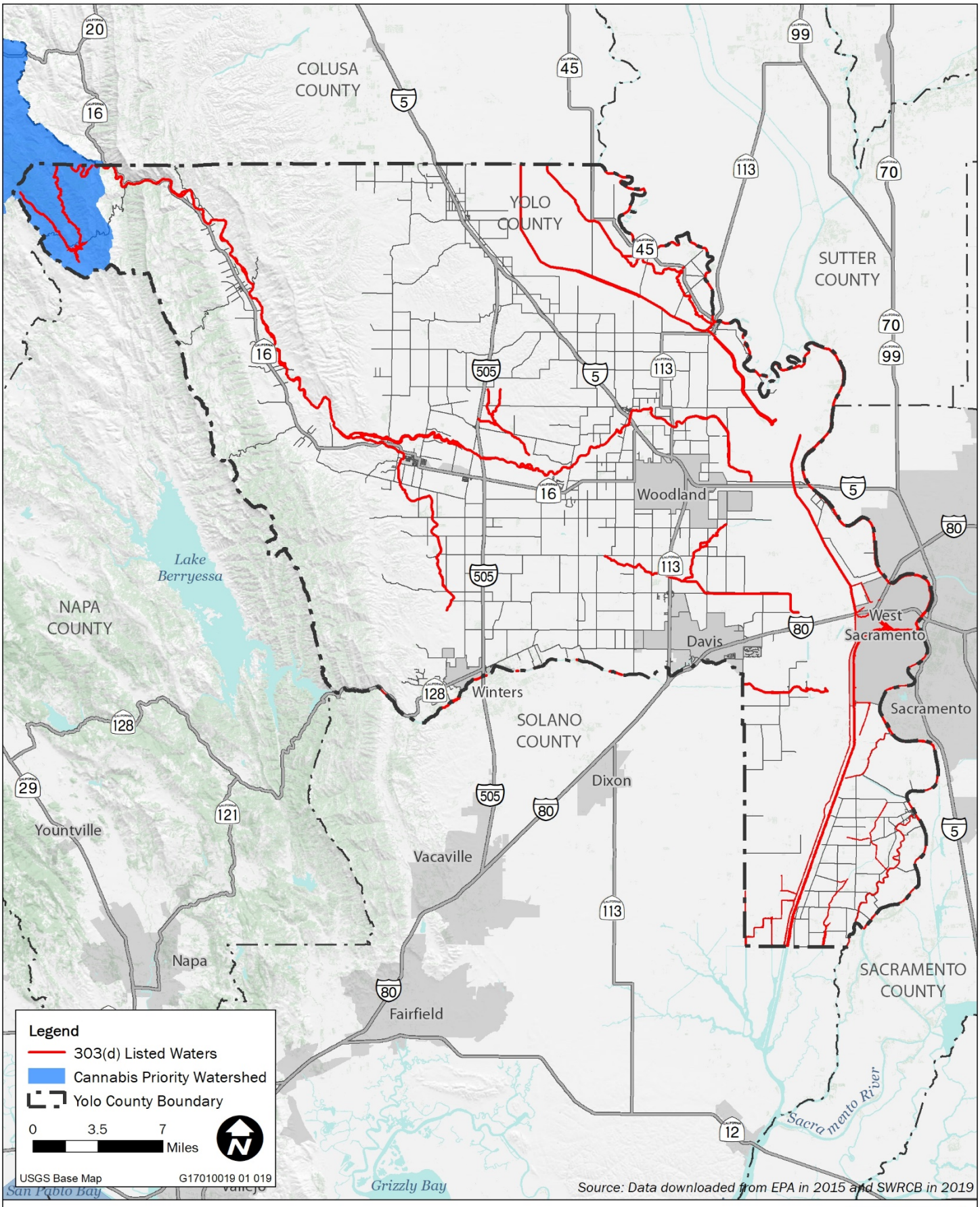


Exhibit 3.10-2 **Impaired Water Bodies in Yolo County**

Table 3.10-1 303(d) Listed Waterways in Yolo County

Waterway	Pollutants (TMDL Completion Date)	Potential Pollutant Sources
Cache Creek, Lower (Clear Lake Dam to Cache Creek Settling Basin near Yolo Bypass)	Boron (2021) Mercury (2007)	The source of mercury is abandoned mines in the area. Potential sources for other pollutants are listed as unknown.
Colusa Basin Drain	Azinphos-methyl (Guthion) (2019) Carbofuran (2021) Dieldrin (2021) Malathion (2010) Mercury (2021) DDT (2021) Diazinon (2008) E. coli (2021) Group A Pesticides (2019) Dissolved Oxygen (2021) Unknown Toxicity (2019)	Sources for pollutants are listed as unknown.
Davis Creek (downstream from Davis Creek Reservoir, Yolo County)	Mercury (2017)	Sources for pollutants are listed as unknown.
Davis Creek (upstream from Davis Creek Reservoir, Yolo County)	Mercury (2017)	Sources for pollutants are listed as unknown.
Davis Creek Reservoir	Mercury (2017)	Sources for pollutants are listed as unknown.
Delta Waterways (northern portion)	Mercury (2009) DDT (2011) Diazinon (2007) Group A Pesticides (2011) Chlordane (2011) Chlorpyrifos (2007) Invasive Species (2019) PCBs (2019) Unknown Toxicity (2019)	The source of mercury is abandoned mines in the area. Potential sources for other pollutants are listed as unknown.
Delta Waterways (northwestern portion)	Mercury (2009) DDT (2011) Diazinon (2007) Group A Pesticides (2011) Chlorpyrifos (2007) Invasive Species (2019) Salinity (2019) Unknown Toxicity (2019)	The source of mercury is abandoned mines in the area. Potential sources for other pollutants are listed as unknown.
Gordon Slough (from headwaters and Goodnow Slough to Adams Canal, Yolo County)	Dissolved Oxygen (2021)	Sources for pollutants are listed as unknown.
Knights Landing Ridge Cut (Yolo County)	Dissolved Oxygen (2021) Salinity (2021)	Sources for pollutants are listed as unknown.
Putah Creek (Solano Lake to Putah Creek Sinks; partly in Delta Waterways, northwestern portion)	Mercury (2017)	The source of mercury is abandoned mines in the area. Potential sources for other pollutants are listed as unknown.
Sacramento River (Red Bluff to Knights Landing)	Dieldrin (2021) Mercury (2021) DDT (2021) PCBs (2021) Unknown Toxicity (2019)	Sources for pollutants are listed as unknown.

Table 3.10-1 303(d) Listed Waterways in Yolo County

Waterway	Pollutants (TMDL Completion Date)	Potential Pollutant Sources
Sacramento River (Knights Landing to the Delta)	Dieldrin (2022) Mercury (2012) DDT (2021) Chlordane (2021) PCBs (2021) Unknown Toxicity (2019)	The source of mercury is abandoned mines in the area. Potential sources for other pollutants are listed as unknown.
Sycamore Slough (Yolo County)	Dissolved Oxygen (2021)	Sources for pollutants are listed as unknown.
Tule Canal (Yolo County)	Boron (2021) E. coli (2021) Salinity (2021) Fecal Coliform (2021)	Sources for pollutants are listed as unknown.
Willow Slough (Yolo County)	Boron (2021) Unknown Toxicity (date not yet set)	Sources for pollutants are listed as unknown.
Willow Slough Bypass (Yolo County)	Selenium (date not yet set) Malathion (date not yet set) Boron (2021) E. Coli (2021) Salinity (date not yet set) Fecal Coliform (2021) Unknown Toxicity (date not yet set)	Sources for pollutants are listed as unknown.
Winters Canal (Yolo County)	Diazinon (2021)	Sources for pollutants are listed as unknown.

Note: TMDL= total maximum daily load.
Source: Water Resources Association of Yolo County 2018

GROUNDWATER

Groundwater is a key component of the County's conjunctive water supply sources. Urban areas, agriculture, and the environment in Yolo County depend upon a reliable water supply, a combination of both groundwater and surface water. In a normal year, nearly all urban water users in the County rely on groundwater as a source of water supply. Farmers rely on groundwater for approximately 40 percent of their supply in a normal year but rely more heavily on groundwater during drought years (Water Resources Association of Yolo County 2018).

The California Water Code (Section 12924) requires DWR to identify California's groundwater basins, investigate patterns of groundwater extraction and recharge within those basins, and identify basins that are subject to critical conditions of overdraft. DWR published Bulletin 118, which provides this information, in 1975, 1980, and 2003. The Sustainable Groundwater Management Act (SGMA), discussed in Section 3.10.2, "Regulatory Setting," and other laws require DWR to establish a process for revising basin boundaries and to publish Bulletin 118 every 5 years. An interim 2016 report has been issued that redefines groundwater basin and subbasin boundaries; however, this discussion reflects the 2003 version of Bulletin 118 because it reflects the information provided in the 2014 SGMA prioritization results. At the time of release of this draft EIR the 2018 SGMA Basin Prioritization results were pending for subbasins underlying Yolo County. Thus, the best available and complete information is related to the 2003 Bulletin 118 Basin Descriptions.

According to the 2003 Bulletin 118 Basin Descriptions (DWR 2003), Yolo County lies over the Capay, Yolo, Colusa, and Solano Subbasins. These subbasins are described as follows and depicted in Exhibit 3.10-3. A summary of the area, number of wells, volume of groundwater, and currently irrigated acreage is provided in Table 3.10-2.

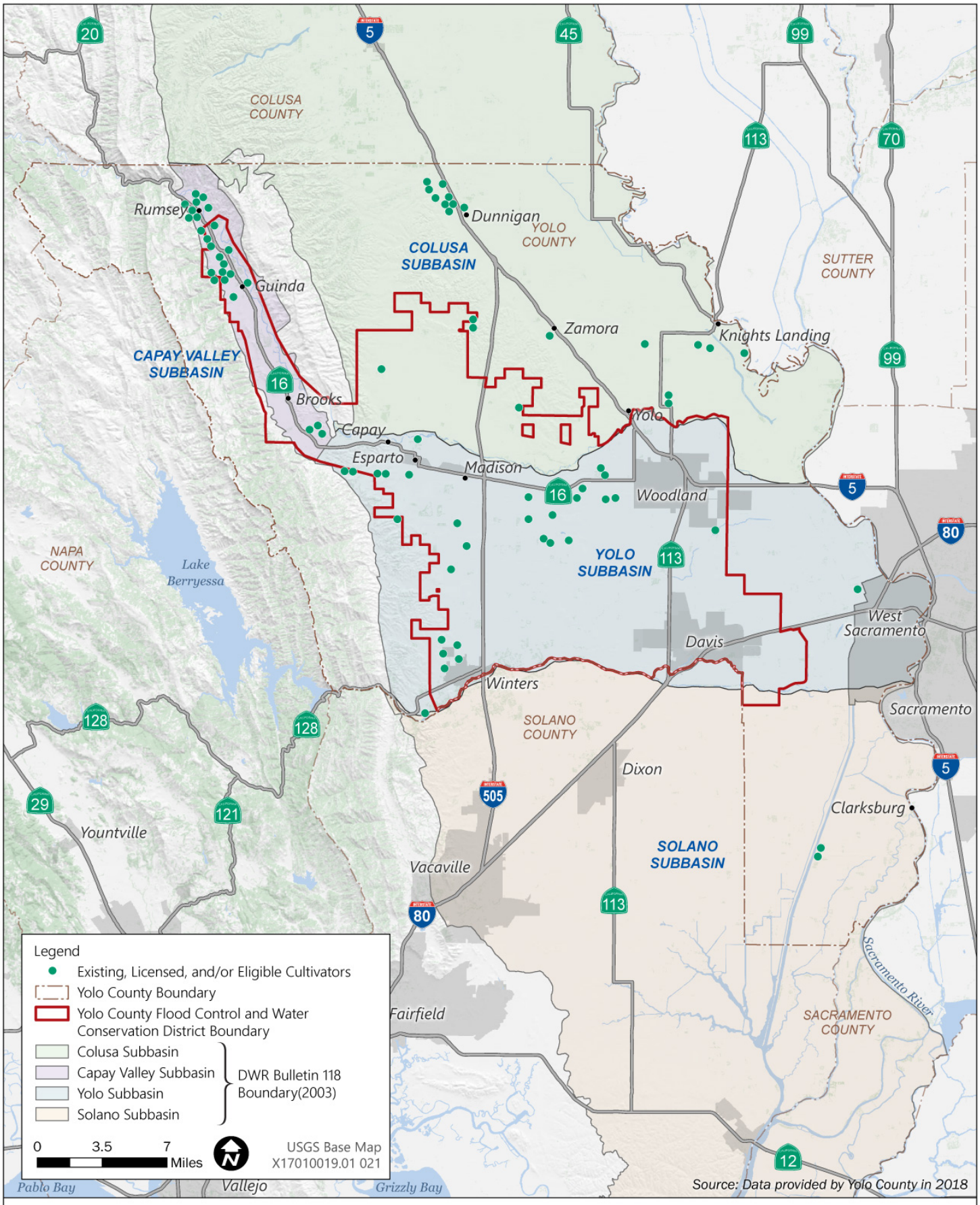


Exhibit 3.10-3 **Groundwater Basins**

Table 3.10-2 Groundwater Basin Prioritization (2014)

Subbasin	Area (acres)	Total Wells	Groundwater Volume	Irrigated Acreage	Percentage of Total Water Supply Provided by Groundwater	SGMA Prioritization
Solano [1]	424,832	6,790	69,149	258,208	10	Medium
Yolo	225,718	7,329	200,000	128,860	25	High
Capay Valley	24,970	501	5,500	6,066	40	Low
Colusa [1]	917,793	9,695	172,896	572,927	10	Medium

Notes: SGMA = Sustainable Groundwater Management Act.

1. Only a portion of the Solano and Colusa Subbasins lies beneath Yolo County.

Sources: DWR 2003, 2015

Capay Valley Subbasin

The Capay Valley Subbasin is located within the Coastal Ranges in the western portion of Yolo County. The subbasin extends from the Yolo County boundary on the north end to the confluence of Salt Creek and Cache Creek on the south end. Structurally, the Capay Valley is a broad, elongated synclinal depression between the Blue Hills of the Vaca Mountains and the Rumsey Hills in the Coast Range Geomorphic Province. Annual precipitation ranges from approximately 17 inches in the valley floor to approximately 25 inches at the ridge tops (DWR 2003).

Recharge for the Capay Valley Subbasin comes primarily from Cache Creek. Additional recharge comes from surrounding minor tributaries, including Bear Creek. Bear Creek is the source of waters high in boron and has an influence on water quality within Cache Creek and on groundwater extracted from Cache Creek deposits within the Capay and Sacramento Valleys (DWR 2003).

Yolo Subbasin

The Yolo Subbasin is located in the southern portion of the Sacramento Valley Basin, primarily within Yolo County. It is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek. The basin is roughly bisected by an anticlinal structure, but otherwise is gently sloping from west to east with elevations ranging from approximately 400 feet at the base of the Coast Range to the west to nearly sea level in the eastern areas. Major cities within the subbasin include Davis, West Sacramento, Winters, and Woodland. Precipitation averages approximately 20–24 inches per year in the western portion of the subbasin, and approximately 18–20 inches per year in the eastern portion of the subbasin (DWR 2003).

Solano Subbasin

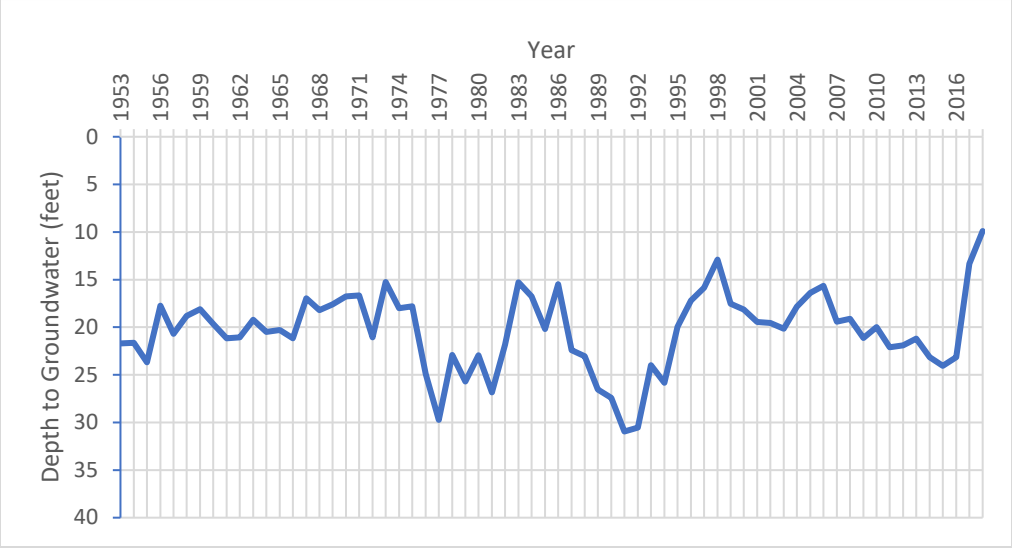
The Solano Subbasin lies in the southwestern portion of the Sacramento Basin and the northern portion of the Delta. The elevation varies from 120 feet in the northwest corner to sea level in the south. Subbasin boundaries are defined by Putah Creek on the north, the Sacramento River on the east (from Sacramento to Walnut Grove), the North Mokelumne River on the southeast (from Walnut Grove to the San Joaquin River), and the San Joaquin River on the south (from the North Mokelumne River to the Sacramento River. The western subbasin border is defined by the hydrologic divide that separates lands draining to the San Francisco Bay from those draining to the Delta. That divide is roughly delineated by the English Hills and the Montezuma Hills. Primary waterways in and bordering the basin include the Sacramento, Mokelumne and San Joaquin Rivers, the Sacramento River Deep Water Ship Channel, and Putah Creek. Annual precipitation averages in the basin range from approximately 23 inches in the western portion of the subbasin to 16 inches in the eastern portion of the basin.

Colusa Subbasin

The portion of the Sacramento Valley that comprises the Colusa Subbasin is bounded on the east by the Sacramento River, on the west by the Coast Range and foothills, on the south by Cache Creek, and on the north by Stony Creek. Annual precipitation ranges from 17 to 27 inches with higher precipitation occurring to the west.

Existing Groundwater Level Conditions

Although agencies have tried to improve the understanding of groundwater resources through preparation of groundwater management plans and monitoring programs, much work remains to quantify the reliable, sustainable groundwater supplies available (Water Resources Association of Yolo County 2018). However, records of depth to groundwater indicate that groundwater supplies have been available since 1953. Exhibit 3.10-4 shows fluctuations in the depth to groundwater during years of drought (such as 1977 when the average annual depth to groundwater was approximately 30 feet) and wet years (such as 2017 when the average annual depth to groundwater was approximately 13 feet). The average groundwater elevation from 1953 to 2018 is approximately 20 feet (CASGEM 2019). Groundwater within Yolo County is not defined as critically overdrafted by DWR (DWR 2019).



Source: CASGEM 2019

Exhibit 3.10-4 Average Depth to Groundwater in Yolo County

Subsidence

Sustaining groundwater resources is also important because heavy reliance on groundwater and groundwater pumping has resulted in subsidence (consolidation of the aquifer causing decreased ground levels). Lower land surfaces resulting from subsidence of peat soils behind levees, some of which can be attributed to groundwater pumping, also contribute to flood risk because of the reduced effectiveness of the levees. Subsidence due to groundwater pumping has been detected in the northern Yolo-Zamora area of Yolo County between Zamora and Knights Landing, where subsidence is reported to be on the order of 5 feet, and the vicinity of the cities of Davis and Woodland, where subsidence is estimated at 2 or 3 feet (Water Resources Association of Yolo County 2018).

Sustainable Groundwater Management Act Prioritization

The SGMA requires prioritization of groundwater basins as low, medium, and high, based on their importance of use. Medium- and high-priority groundwater basins in the state must be managed by local agencies that have formed a groundwater sustainability agency (GSA). The GSAs are charged with developing and implementing a groundwater sustainability plan (GSP) by January 31, 2022, to guide the sustainable management of its groundwater basin. Groundwater sustainability goals are to be achieved 20

years after adoption of the GSP. Because Yolo Subbasin is of high priority and Solano and Colusa are of medium priority, as shown in Table 3.10-2, they are subject to development of a GSP. The Yolo Subbasin Groundwater Agency was officially formed on June 19, 2017, for the purpose of acting as the GSA for the Yolo Subbasin, which underlies the majority of Yolo County under the 2016 Bulletin 118 definitions.

Bulletin 118 Update

With the passage of SGMA, Bulletin 118, California's official publication on the occurrence and nature of groundwater statewide must be updated by 2020 to contain groundwater basins information that includes: critical conditions of overdraft, basin boundaries, and basin priority. In February 2019, DWR released a list of critically overdraft basins map and modifications to groundwater basin boundaries. The groundwater basins boundary updates have been modified such that Yolo County overlies the Yolo Subbasin, and very small portions of the Colusa and Solano Subbasins. There are no critically overdrafted basins or subbasins beneath Yolo County. The prioritization of groundwater subbasins in Yolo County has not yet been updated (DWR 2019).

GROUNDWATER QUALITY

The groundwater in the Yolo subbasin is generally high in calcium (generally over 180 milligrams per liter [mg/L] calcium carbonate) and magnesium, with localized areas of high selenium and boron. Total dissolved solids are 574 parts per million on average. In the east Yolo subbasin, beneath the city of Davis and University of California, Davis, average concentration of arsenic in the Tehama formation is 0.04 mg/L, which exceeds EPA maximum contaminant level (MCL) of 0.01 mg/L. Elevated concentrations of selenium, nitrate, and boron have been detected in groundwater along Cache Creek and the Cache Creek Settling Basin area. The intrusion of saline or brackish water into freshwater aquifer systems is generally associated with coastal areas. However, the intrusion of saline or brackish water from the Delta area may occur in the Sacramento Valley, including eastern Yolo County if overdrafting of deep wells lowers the water levels in the groundwater basin. If saltwater intrusion were to occur on a widespread basis in this area, the local water supply would be adversely affected (Yolo Habitat Conservancy 2017).

GROUNDWATER USE

Public Water Systems

Public water supplies for the unincorporated area of the County consist of groundwater that is provided through private wells, small community and transient water service systems, and from community service districts (CSDs) that consist of Esparto CSD, Knights Landing CSD, Madison CSD, and Cacheville CSD. The reader is referred to Section 3.15, "Utilities and Service Systems," for a further description of these service providers and current water system capacities.

Agricultural Use

Irrigation water in Yolo County is primarily supplied from groundwater or through purchasing supplies from YCFCWCD. YCFCWCD, which includes approximately 216,000 acres, or nearly 40 percent of the valley lands in Yolo County, is located within the northern portion of Yolo County (see Exhibit 3.10-3). The YCFCWCD distribution system is comprised of approximately 160 miles of canals and laterals. Three dams—Cache Creek Dam, Indian Valley Dam, and the Capay Diversion Dam—are managed by YCFCWCD (YCFCWCD 2016).

In addition to YCFCWCD, there are various other irrigation water purveyors in Yolo County, including: Colusa County Water District, Colusa Drain Mutual Water Company, Dunnigan Water District, Rumsey Water Users' Association, and numerous reclamation districts (Yolo County 2018: Appendix C). These water purveyors supply much smaller quantities of water than YCFCWCD to various areas of the County.

YCFCWCD Service Area Water Supply

YCFCWCD's surface water supplies consist of water stored in Clear Lake under pre-1914 rights, water stored in Indian Valley Reservoir under appropriative rights issued by SWRCB, pre-1914 rights from Cache Creek and North Fork Cache Creek, and riparian rights along Cache Creek and North Fork Cache Creek (YCFCWCD 2016). The District does not own any groundwater wells or supply groundwater to its water users, nor does the District maintain records of groundwater pumped by privately owned groundwater wells (YCFCWCD 2016).

Yolo County contains extensive farmlands and produces several different types of crops, including field crops, vegetable crops, grapes, and seed crops. Each year in March, requests to YCFCWCD are made for water supply during the summer months. The amount of water distributed to individual farms is related to availability and the quantities requested.

Each type of crops has different application rates. Table 3.10-3 provides an overview of the annual irrigated area, water demands, and application rates of different crop types receiving water supplies from YCFCWCD from 2012 through 2015. Note that in addition to water use by crops, unquantified water is used for habitat, environmental benefits, and recreational water uses. YCFCWCD also provides water for municipal and industrial purposes, and to support groundwater recharge efforts (YCFCWCD 2016). Between one and three existing cannabis cultivation sites purchase water each year from YCFCWCD (Stevenson, pers. comms., 2019).

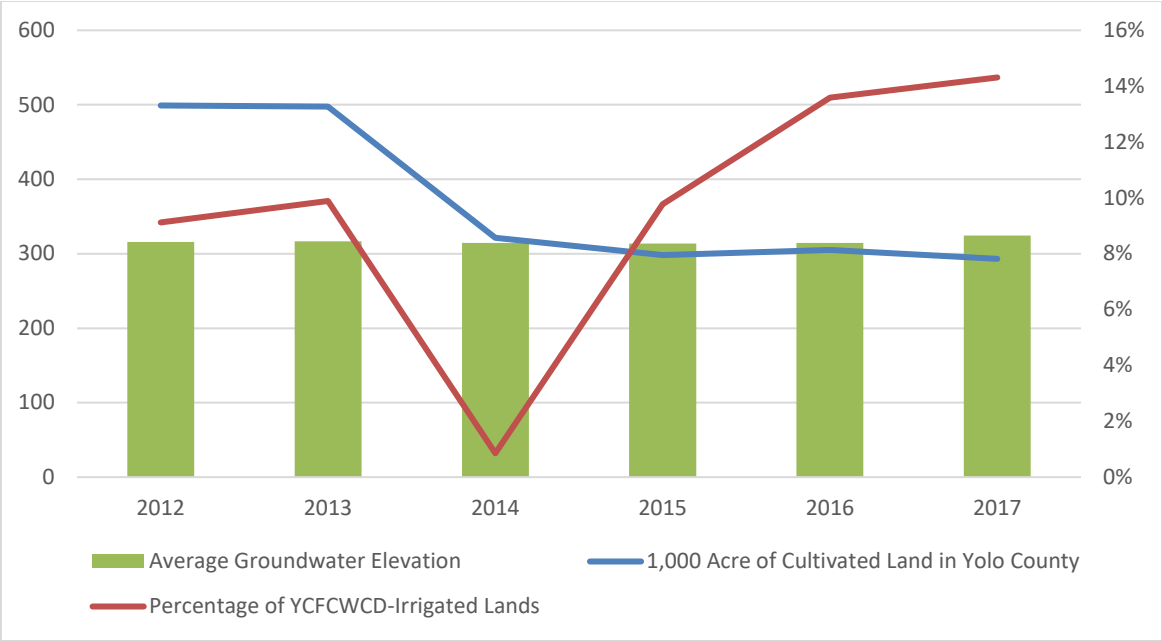
Table 3.10-3 Annual Irrigated Area, Water Demand, and Application Rates in Yolo County from YCFCWCD Supplies

Crop Type	2012			2013			2014			2015			Average Acre-Feet/Acre
	Irrigated Acreage	Water Demand (af)	Acre-Feet/Acre	Total Acreage	Total Crop Water Needs (af)	Acre-Feet/Acre	Total Acreage	Total Crop Water Needs (af)	Acre-Feet/Acre	Total Acreage	Total Crop Water Needs (af)	Acre-Feet/Acre	
Field Crops	24,909	79,487	3.19	27,367	92,674	3.39	769	1,823	2.37	11,351	37,326	3.29	**3.06**
Vegetable Crops	6,703	11,028	1.65	6,650	11,434	1.72	659	784	1.19	3,849	5,638	1.46	**1.50**
Fruit and Nut Crops	6,184	20,675	3.34	6,874	24,237	3.53	1,079	3,219	2.98	7,996	24,961	3.12	**3.24**
Grapes / Wine Grapes	1,747	4,105	2.35	2,065	5,142	2.49	69	164	2.38	2,022	4,752	2.35	**2.39**
Seed Crops	6,003	11,026	1.84	6,243	18,282	2.93	172	345	2.01	3,931	7,111	1.81	**2.14**
Miscellaneous	1,390	979	0.70	916	1,053	1.15	221	642	2.90	794	1,846	2.32	**1.77**
TOTAL	**46,936**	**127,300**	**2.71**	**50,115**	**152,822**	**3.05**	**2,969**	**6,977**	**2.35**	**29,943**	**81,634**	**2.73**	**2.71**

Notes: af = acre-feet; YCFCWCD = Yolo County Flood Control and Water Conservation District.

Source: YCFCWCD 2016

As noted above, countywide groundwater pumping data for Yolo County is not available; however, YCFCWCD maintains information related to agricultural water use in its service area. As depicted in Exhibit 3.10-5, from 2012 through 2017, water supplies in YCFCWCD vary from year to year depending on available resources. Notably, very little water was available for purchase in 2014 due to low rainfall and persistent drought conditions. Regardless of fluctuations in surface water supplies, which increase reliance on groundwater pumping, and changes to the countywide cultivated land area, groundwater elevation levels did not fluctuate substantially.



Sources: Stevenson, pers. comms., 2019; Yolo County 2014, 2016; YCFCWCD 2018

Exhibit 3.10-5 Change in Groundwater Elevation during Drought and Changing Water Supply Conditions

FLOODING

Within Yolo County, the Cache Creek Basin, the Sacramento River corridor, Willow Slough, Colusa Basin Drain, and Dry Slough are the primary areas with potential for flooding. Areas that are within the 100-year floodplain consist of residential and agricultural areas along Cache Creek, the Colusa Basin Drainage Canal, Knights Landing Ridge Cut, the Sacramento River, and the majority of the lower eastern portion of the County (Exhibit 3.10-6). The 500-year floodplain is most extensive north of the city of Woodland, west of the city of Davis, east of the Yolo Bypass, and through the city of West Sacramento south to Clarksburg (Yolo Habitat Conservancy 2017).

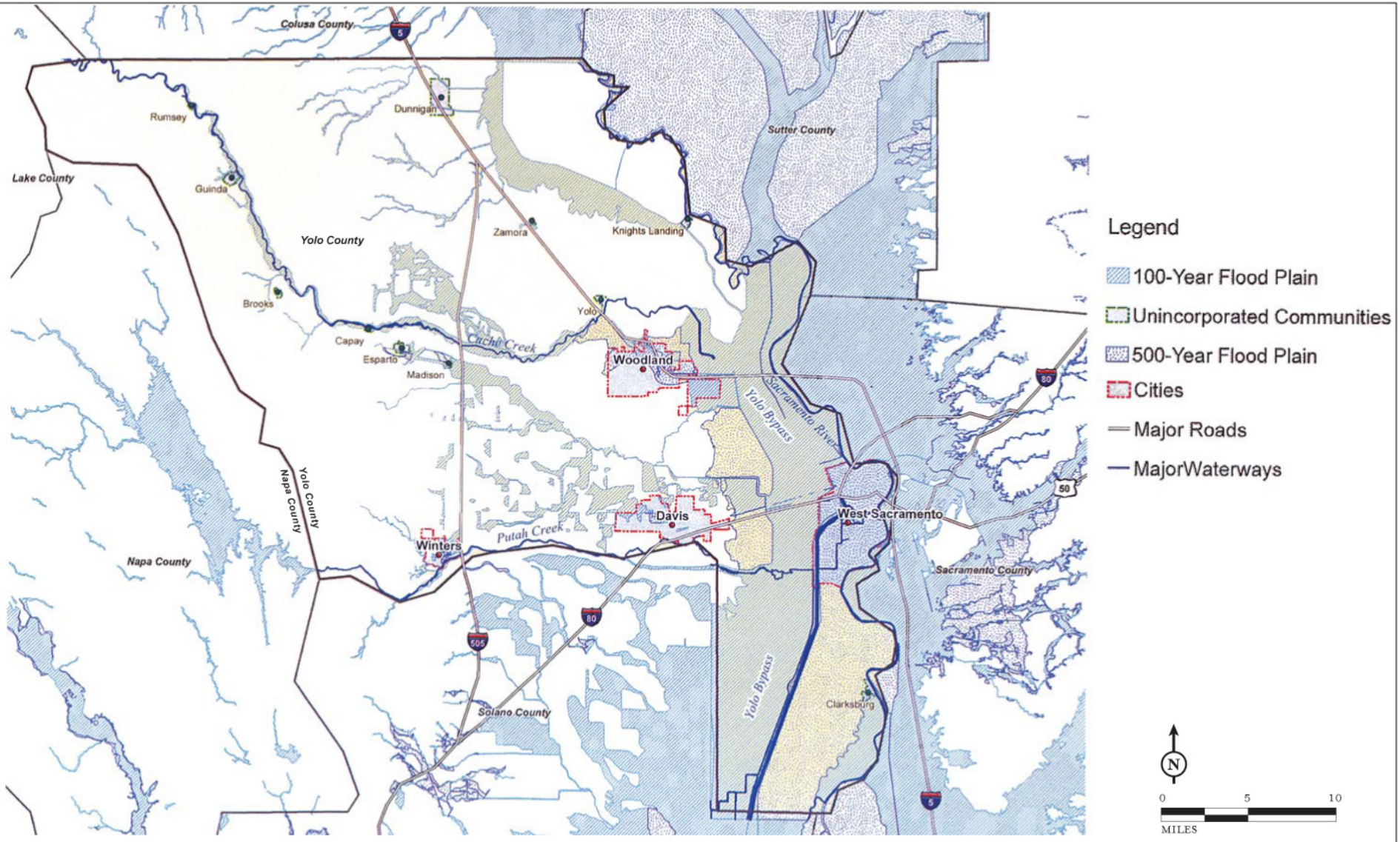
Yolo County has approximately 215 miles of levees that provide flood control, and are managed by various agencies including Reclamation Districts, flood control agencies (e.g., West Sacramento Flood Control Agency, DWR and USACE). Some of these levees were decertified by the Federal Emergency Management Agency and the California Department of Water Resources in 2010. As part of the Sacramento River Flood Control Project, high flows that pass over Fremont Weir and through the Sacramento Weir are diverted through the Yolo Bypass located in the Yolo Basin. To the west of Yolo County are the Indian Valley Dam and Reservoir, the Cache Creek Dam at Clear Lake, and the Monticello Dam on Putah Creek at Lake Berryessa. If any of these dams were to fail, or if the nearest upstream dams along the Sacramento, Feather, or American River failed, flooding would occur in Yolo County (Yolo Habitat Conservancy 2017).

3.10.2 Regulatory Setting

FEDERAL

Clean Water Act

EPA is the lead federal agency responsible for water quality management. The CWA is the primary federal law that governs and authorizes water quality control activities by EPA, as well as the states. Various elements of the CWA address water quality. These are discussed below.



Source: Image provided by LSA in 2019

X17010019.01 017

Exhibit 3.10-6

Floodplains in Yolo County

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under 40 CFR. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the SWRCB and its nine RWQCBs have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a TMDL for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. It is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives.

In California, implementation of TMDLs is achieved through water quality control plans, known as basin plans. Basin plans contain specific water quality standards, as well as a program of implementation for how those water quality standards may be achieved. A TMDL might be one component of that program. Basin plans, their contents, and the applicability of Section 303(d) are discussed in further detail in the section on state regulations, below.

EPA must either approve a TMDL prepared by the state or disapprove the state's TMDL and issue its own. National Pollutant Discharge Elimination System (NPDES) permit limits for listed pollutants must be consistent with the waste load allocation prescribed by the TMDL. After implementation of a TMDL, it is anticipated that the environmental issues associated with the regulated pollutant that led to listing of a given waterbody on the Section 303(d) list would be remediated.

CWA Section 404

In accordance with Section 404 of the CWA, USACE regulates discharge of dredged or fill material into waters of the United States. Waters of the United States and their lateral limits are defined in Title 33, Part 328.3(a) of the CFR to include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Any activity resulting in the placement of dredged or fill material within waters of the United States requires a permit from USACE. In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate RWQCB indicating that the project will uphold water quality standards. Waters of the United States and wetland protection requirements of the CWA administered by USACE are further discussed in Section 3.4, "Biological Resources."

Because cannabis is not a legal crop at the federal level, and cannabis activities are legally prohibited, CWA permits cannot currently be issued for cannabis operations.

CWA Section 401 and 402 National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. "Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source

pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of state regulations below).

National Toxics Rule

In 1992, EPA issued the National Toxics Rule (NTR) (40 CFR 131.36) under the CWA to establish numeric criteria for priority toxic pollutants in 14 states and jurisdictions, including California, to protect human health and aquatic life. The NTR established water quality standards for 42 pollutants for which water quality criteria exist under CWA Section 304(a) but for which the respective states had not adopted adequate numeric criteria. EPA issued the California Toxics Rule (CTR) in May 2000. The CTR establishes numeric water quality criteria for 130 priority pollutants for which EPA has issued Section 304(a) numeric criteria that were not included in the NTR.

Federal Antidegradation Policy

The federal antidegradation policy, established in 1968, is designed to protect existing uses of waters and water quality and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- existing instream uses and the water quality necessary to protect those uses shall be maintained and protected;

- where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and

- where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from, and mitigating against disasters. Formed in 1979 to merge many of the separate disaster related responsibilities of the federal government into one agency, FEMA is responsible for coordinating the federal response to floods, earthquakes, hurricanes, and other natural or human-made disasters and providing disaster assistance to states, local governments, and individuals. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards. Established in 1968 with the passage of the National Flood Insurance Act, the NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

FEMA prepares Flood Insurance Rate Maps that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on the maps. Special Flood Hazard Areas are the areas identified as having a 1-percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the

NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, EPA regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary MCLs. MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the California Department of Health Care Services, which is accountable to EPA for implementing the program and adopting standards and regulations that are at least as stringent as those developed by EPA.

STATE

State CEQA Guidelines

Section 15155 of the State CEQA Guidelines contains requirements associated with water supply analyses. A water supply analysis is required for a "water-demand project," which includes: a residential development of more than 500 dwelling units; a shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; and, an industrial, manufacturing, or processing plan, or industrial park planned to house more than 1,000 people, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. If the project is considered to meet the definition of a water-demand project, as defined by Section 15155(a) of the CEQA Guidelines, a water assessment must be included in the related EIR, negative declaration, or mitigated negative declaration, or supplement. The lead agency must determine whether the projected water supplies would be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act, which grants SWRCB and each of the nine RWQCBs power to protect water quality, is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the proposed project is the Central Valley RWQCB. The SWRCB and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The Basin Plans must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its state water policy. The Porter-Cologne Act also provides that an RWQCB may include within its Basin Plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Basin Plan

The Water Quality Control Plan (Basin Plan) for the Central Valley Regional Water Quality Control Board (RWQCB) covers the entire area included in the Sacramento and San Joaquin River drainage basins. The basins are bound by the crests of the Sierra Nevada on the east and the Coast Range and Klamath Mountains on the west. They extend some 400 miles from the California - Oregon border southward to the headwaters of the San Joaquin River. The Basin Plan contains water quality objectives for inland surface water and groundwater, water quality concerns, actions to implement water quality objectives, and surveillance and monitoring programs. Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of

nuisance. Two major water quality concerns are related to the CLUO: irrigated agriculture and municipalities and industries.

Waste Discharge Requirements

There are nine categories of discharges that are regulated by the Central Valley RWQCB through the Waste Discharge Requirements (WDRs) Program: sewage, wastewater, underground injection, Regional Water Board cleanup actions, gas condensate, soil amendments, drilling waste, reuse, and waste treatment in fully enclosed units. The following provides a non-exhaustive list of WDRs that are applicable to cannabis sites in Yolo County.

Community Services Districts

As discussed in Section 3.15, "Utilities and Service Systems," cannabis facilities could discharge wastewater to wastewater treatment plants in the County if they are located within community services districts (CSDs): Esparto, Madison, and Knights Landing. The Madison CSD wastewater treatment facility (WWTF) operates under Order No. 5-00-039; Esparto CSD WWTF operates under Order No. 5-01-112; and the Knights Landing CSD WWTF operates under R5-007-0149. Each WDR includes an overview of the existing facility and discharge system, discharge prohibitions, and discharge specifications. Flows into the WWTFs are regulated by the CSDs.

Irrigated Lands Regulatory Program

Central Valley RWQCB also administers the Irrigated Lands Regulatory Program (ILRP) aimed at regulating waste discharges due to agricultural operations. The Yolo County Farm Bureau Irrigated Lands Program (Yolo ILP) is designed to help farmers in the County to protect water quality from discharges of irrigation water and storm water that enters surface water bodies and meet the requirements of the ILRP. The Yolo ILP group is part of the Sacramento Valley Water Quality Coalition (Coalition), which is responsible for fulfilling the conditions and requirements of the WDR General Order R5-2014-0030- R1 for waste discharges from irrigated lands, which includes surface water quality monitoring and analysis on the pesticides, herbicides, nutrients and other agricultural products. Growers under the Coalition are required to prepare and have certified a sediment and erosion control plan (SECP), which will help identify erosion sources and potential locations of sediment discharge that could affect the quality of storm water and irrigation water discharges from farmlands. The SECP includes identified parcels and/or corresponding field(s) the SECP applies to, on-farm sediment and erosion management practices, site evaluation, and SECP self-certification. Coverage under the ILRP may be obtained through joining a coalition or enrolling as an individual discharger. The coalition group conducts water quality monitoring on behalf of its growers; individual enrollment growers may be required to monitor runoff, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their action to comply with the WDR General Order R5-2014-0030- R1.

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The SWRCB adopted the statewide NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Permit) in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Construction Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Phase I and II Municipal Separate Storm Sewer Systems Permits

The Phase I and II Municipal Separate Storm Sewer Systems (MS4) permits require that Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable. MS4 Permittees have their own development standards, also known as low impact development (LID)/post-construction standards that include a hydromodification

component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process. Yolo County is required to comply with the Small MS4 General Permit (Order No. 2013-0001-DWQ).

SWRCB Principles and Guidelines for Cannabis Cultivation

SWRCB has developed a policy for water quality control to establish principles and guidelines for cannabis cultivation as well as the Cannabis General Order (SWRCB Order WQ 2019-0001-DWQ). The principles and guidelines shall include measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation. Principles and guidelines may include instream flow objectives, limits on diversions, and requirements for screening of diversions and elimination of barriers to fish passage. The principles and guidelines may include requirements that apply to groundwater extractions.

The SWRCB Order WQ 2019-0001-DWQ provides a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities. The tier structure consists of two tiers:

- Tier 1 outdoor commercial cultivation activities disturb an area equal to or greater than 2,000 square feet and less than 1 acre (43,560 square feet).

- Tier 2 outdoor commercial cultivation activities disturb an area equal to or greater than 1 acre.

For the purposes of this regulation, “land disturbances” refers to areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Land disturbance includes all activities whatsoever associated with developing or modifying land for cannabis cultivation related activities or access. Land disturbance activities include, but are not limited to, construction of roads, buildings, water storage areas and excavation, grading, and site clearing.

Tier 1 and Tier 2 enrollees must characterize the risk designation based on the slope of disturbed areas and the proximity to a water body. Applicants must comply with the riparian setback and slope limits and are classified as low, moderate, or high risk, as described below:

- Low Risk: A cannabis cultivation site is classified as low risk if no part of the disturbed area is located on a slope of 30 percent or greater. Such cannabis cultivators shall register as low risk and submit a Site Management Plan.

- Moderate Risk: A cannabis cultivation site is classified as moderate risk if any part of the disturbed area is located on a slope greater than 30 percent and less than 50 percent. Such cannabis cultivators shall register as moderate risk and submit a Site Erosion and Sediment Control Plan.

- High Risk: A cannabis cultivation site is classified as high risk if any part of the disturbed area exists within the riparian setback limits. Such cannabis cultivators shall register as high risk, submit a Disturbed Area Stabilization Plan, and shall address the compliance issue as described below. Because such cannabis cultivators pose a higher risk to water quality and will require a higher level of RWQCB oversight, they are subject to a higher application and annual fee. When the cannabis cultivation site is reconfigured to comply with the riparian setbacks, the cannabis cultivator can request the RWQCB reclassify the site to a lower risk level and allow a lower annual fee to be assessed.

To obtain coverage under the waiver or enroll under the general order, the discharger is required to submit an online application and application fee and relevant technical reports. Technical report requirements are based on tier and risk level (Table 3.10-4).

Table 3.10-4 Technical Report Requirements by Tier

Tier	Risk Level	Technical Reports
Conditionally Exempt	N/A	Site Closure Report
Tier 1	All	Site Management Plan Site Closure Report
	Moderate	Site Erosion Sediment Control Plan
	High	Disturbed Area Stabilization Plan
Tier 2	All	Site Management Plan Nitrogen Management Plan Site Closure Report
	Moderate	Site Erosion Sediment Control Plan
	High	Disturbed Area Stabilization Plan

Source: SWRCB Order WQ 2019-0001-DWQ

A summary of the types of information included in the technical reports is provided as follows.

Site Management Plan

A Site Management Plan describes how the cannabis cultivator is complying with the requirements listed in Attachment A of the SWRCB Order WQ 2019-0001-DWQ. These requirements include a description of how the requirements are implemented property-wide, including requirements implemented to address discharges from legacy activities and water diversions, as well as waste discharge requirements related to cannabis cultivation. Dischargers must also indicate how the best practical treatment or control (BPTC) measures included in the Cannabis Policy will be implemented. The Site Management Plan may include a schedule to achieve compliance, but all work must be completed by the onset of the winter period each year.

Best Practical Treatment or Control

The requirements related to water diversion and waste discharge for cannabis cultivation cover the following 10 BPTC categories:

1. Riparian and wetland protection and management
2. Water diversion, storage, and use
3. Irrigation runoff
4. Land development and maintenance, erosion control, and drainage features
5. Soil disposal
6. Stream crossing installation and maintenance
7. Fertilizer and soil use and storage
8. Cultivation-related waste disposal
9. Refuse and human waste disposal
10. Winterization

Site Erosion and Sediment Control Plan

A Site Erosion and Sediment Control Plan describes how the cannabis cultivator will implement the site erosion and sediment control requirements listed in Attachment A of the SWRCB Order WQ 2019-0001-DWQ. The report must include an analysis of slope stability, and is subject to approval by RWQCB. When

required, the Site Erosion and Sediment Control Plan is to be prepared by a qualified individual (i.e., a registered professional per the Cannabis Policy requirements).

Disturbed Area Stabilization Plan

A Disturbed Area Stabilization Plan describes how BPTC measures will be implemented to achieve the goal of stabilizing the disturbed area to minimize the discharge of sediment off-site and complying with the riparian setback requirements. The report must be approved by the RWQCB Executive Officer before implementation. When required, the Disturbed Area Stabilization Plan shall be prepared by a qualified professional.

Nitrogen Management Plan

A Nitrogen Management Plan is required for the cannabis cultivation site. It provides calculations of all the nitrogen applied to the cannabis cultivation area (dissolved in irrigation water, originating in soil amendments, and applied fertilizers) and describes procedures to limit excessive fertilizer application.

Site Closure Report

A Site Closure Report describes how the site will be decommissioned to prevent sediment and turbidity discharges that degrade water quality. If construction activities are proposed in the Site Closure Report, a project implementation schedule shall be included in the report. A Notice of Termination must be submitted (Attachment C of Attachment A of the SWRCB Order WQ 2019-0001-DWQ) with the Site Closure Report.

Monitoring and Reporting Program

The monitoring and reporting program describes requirements for monitoring a cannabis cultivation site and its associated facilities. Tier 1 and Tier 2 facilities must report on issues pertaining to facility status, site maintenance status, and stormwater runoff monitoring. Tables 3.10-5, 3.10-6, and 3.10-7 provide an overview of these requirements.

Table 3.10-5 Facility Status

Monitoring Requirement	Description
Winterization Measures Implemented	Report winterization procedures implemented, any outstanding measures, and the schedule for completion.
Tier Status Confirmation	Report any change in the tier status. (Stabilization of disturbed areas may change the tier status of a facility. Contact the Regional Water Quality Control Board if a change in status is appropriate.)
Third Party Identification	Report any change in third party status as appropriate. Nitrogen Application Report generated monthly and annual total nitrogen use for bulk, solid, and liquid forms of nitrogen. Provide the data as pounds/canopy acre/time (month or year) as described in Attachment D, Nitrogen Management Plan. If plant tissue was collected to determine limited nitrogen availability, the results shall be submitted.

Table 3.10-6 Site Maintenance Status

Observations	Description	Monitoring Frequency
Surface Water Runoff	Report any conditions of surface water runoff, including location, duration, source of runoff (irrigation water, storm water, etc.).	Monthly
Soil Erosion Control	Report any indications of soil erosion (e.g., gullying, turbid water discharge, landslide, etc.). Monthly Sediment Capture Report on the status of sediment capture measures (e.g., silt fence, fiber rolls, settling basin, etc.).	Monthly
Erosion/Sediment Capture Maintenance	Report maintenance activities to maintain the effectiveness of erosion control and sediment capture measures (e.g., reinstallation of straw mulch, hydroseeding, tarp placement, removal or stabilization of sediment captured, removal of settled sediment in a basin, etc.).	Monthly

Table 3.10-6 Site Maintenance Status

Observations	Description	Monitoring Frequency
Stabilization of Disturbed Areas	Dischargers characterized as high risk (with any portion of the disturbed area within the setbacks) shall provide a status report describing activities performed to stabilize the disturbed area within the setback.	Monthly
Material(s) Storage Erosion/ Spills Prevention	Report materials delivered or stored at the site that could degrade water quality if discharged off-site (e.g., potting soil, manure, chemical fertilizer, gasoline, herbicides, pesticides, etc.).	Monthly
Holding Tank, Septic Tank, or Chemical Toilet Servicing	Report the dates, activity, and name of the servicing company for servicing holding tanks or chemical toilets.	Monthly

Table 3.10-7 Stormwater Runoff Monitoring

Constituent	Frequency	Monitoring Frequency
Turbidity	Once per calendar month when precipitation exceeds 0.25 inch per day or when stormwater runoff from the site is generated	All months until winterization procedures are completed.
pH	Once per calendar month when precipitation amount is forecast to exceed 0.25 inch per day	All months until winterization procedures are completed.

Annual reports are required to be submitted to the Central Valley RWQCB. The Cannabis Policy includes informal and formal enforcement actions to address a violation or threatened violation of water rights and/or water quality law, regulations, policies, plans, or orders. These actions include a notice of violation, cleanup and abatement orders, cease and desist order, revocation of water rights permits, and modifications or rescission of waste discharge requirement permits.

Numeric and Instream Flow Requirements

Attachment A of the SWRCB Order WQ 2019-0001-DWQ establishes principles and guidelines (Requirements) for cannabis cultivation activities to protect water quality and instream flows, in consultation with the California Department of Fish and Wildlife (CDFW) and CDFA. The requirements are divided into five main categories:

- Section 1, General Requirements and Prohibitions, and Cannabis General Water Quality Certification
- Section 2, Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation
- Section 3, Numeric and Narrative Instream Flow Requirements (including Gaging)
- Section 4, Watershed Compliance Gage Assignments
- Section 5, Planning and Reporting

Instream flow requirements were established by the SWRCB in consultation with CDFW for the protection of aquatic species life history needs, including endangered anadromous salmonids. Numeric instream flow requirements (minimum instream flows required to protect aquatic species) are established for each region in the state in Attachment A of SWRCB Order WQ 2019-0001-DWQ. Aquatic base flows have also been established to address instream flow impacts from groundwater diversions (further discussed below). The SWRCB's flow standards and diversion requirements were developed to protect fish spawning, migration, and rearing for endangered anadromous salmonids, and flows needed to maintain natural flow variability within each watershed. The diversion requirements would ensure that the individual and cumulative effects of water diversions and discharges associated with cannabis cultivation do not affect instream flows necessary for fish spawning, migration, and rearing for endangered anadromous salmonids, and flows needed to maintain natural flow variability. The policy was scientifically peer reviewed by four experts. The peer review determined that water quality, instream flow, and diversion requirements of the policy were based on sound scientific knowledge, methods, and data.

General Requirements and Prohibitions in Attachment A of the SWRCB Order WQ 2019-0001-DWQ implement existing SWRCB authorities and address issues such as compliance with state and local permits, discharge prohibitions, riparian setbacks, protection of tribal cultural resources, and the SWRCB's right to access properties for inspections.

Detailed information related to the requirements that pertain to hydrology and water quality is provided below.

Flow and Gaging Requirements

The instream flow requirements apply to cannabis cultivators throughout the state. The numeric instream flow requirements are developed at compliance gages statewide. The instream flow requirements may be updated over time, as reasonably necessary. Interested parties may submit scientifically defensible information (e.g. instream flow studies) that supports modification to the instream flow requirements to the Deputy Director of the SWRCB for consideration during updates to the Cannabis Policy. Table 3.10-8 provides representative gage instream flow requirements (described below) for watersheds in Yolo County.

Table 3.10-8 Gage Numeric Instream Flow Requirements

USGS Gage Number	Surface Water					
	Watershed	November (cfs)	December (cfs)	January (cfs)	February (cfs)	March (cfs)
11425500	Sacramento River	10,548	14,051	25,774	24,889	22,688
11451800	Cache Creek	437	645	1,346	1,300	979
11453500	Putah Creek	82	137	234	251	172

Notes: cfs = cubic feet per second; USGS = U.S. Geological Survey.

Source: Compiled by Ascent Environmental in 2019

Surface Water Diversion Forbearance Period

Absent restrictions on water diversion, the individual and cumulative effects of water diversions for cannabis cultivation during the dry season are likely to significantly decrease instream flow and, in some instances, reduce hydrologic connectivity or completely dewater the stream.

Minimum flows that provide habitat connectivity are needed to maintain juvenile salmonid passage conditions in late spring and early summer. Instream flows are also needed to maintain habitat conditions necessary for juvenile salmonid viability throughout the dry season, including adequate dissolved oxygen concentrations, low stream temperatures, and high rates of invertebrate drift from riffles to pools. Further, many species depend on spring recession flows as migratory or breeding cues. The SWRCB has established a surface water diversion forbearance period (April 1 to October 31 each year) to ensure adequate flows are maintained throughout the dry season and protect aquatic species, aquatic habitat, and water quality.

Wet Season Surface Water Instream Flow Requirements

Minimum instream flow requirements during the wet season are needed for the protection of aquatic species life history needs. For threatened and endangered anadromous salmonids, minimum flows are needed to address life history needs, such as:

1. maintaining natural abundance and availability of spawning habitat;
2. minimizing unnatural adult exposure, stress, predation, and delay during adult spawning migration; and
3. sustaining high-quality and abundant juvenile salmonid winter rearing habitat.

To meet the timeline, scale, and purpose of SWRCB Order WQ 2019-0001-DWQ, the SWRCB, in consultation with CDFW, has determined that the Tessmann Method is the best methodology to develop interim instream flow requirements. The Tessmann Method develops instream flow requirements by using percentages of historical mean annual and mean monthly natural streamflow. For the development of long-term instream flow

requirements, the SWRCB, in consultation with CDFW, will evaluate other scientifically robust methods that are more reflective of regional variability and the needs of target species. SWRCB applied the Tessmann Method to a predicted historical flow data set sourced from a flow modeling effort conducted by the U.S. Geological Survey (USGS) in cooperation with The Nature Conservancy and Trout Unlimited (USGS flow modeling data). The interim instream flow requirements were calculated for compliance gages throughout the state. The Tessmann Method and the USGS flow modeling data allow for instream flow requirements to be calculated at additional compliance points throughout the state. This allows the SWRCB to use the Tessmann Method and the USGS flow modeling data to calculate or adjust a flow requirement, as needed, throughout the state.

Maintain High-Flow Events

To preserve the annual first flush flow event, the surface water diversion period for cannabis cultivation will not occur until the real-time daily average flow is greater than the minimum monthly instream flow requirement at a compliance gage for 7 consecutive days or after December 15 when flows are greater than the numeric flow requirement, whichever occurs first. Surface water diversions must bypass a minimum of 50 percent of the streamflow past the point of diversion. The SWRCB will monitor other high-flow events that occur throughout the wet season to evaluate whether additional requirements are needed to maintain high-flow variability during other periods of the wet season.

Groundwater Requirements

To address potential impacts of groundwater diversions on surface flow, SWRCB's Deputy Director for Water Rights may require a forbearance period or other measures for cannabis groundwater diversions in areas where such restrictions are necessary to protect instream flows. Such areas may include watersheds with high surface water-groundwater connectivity, large numbers of cannabis groundwater diversions, and/or groundwater diversions in close proximity to streams. An aquatic base flow was developed at each compliance gage during the surface water forbearance period (dry season) to inform the need for additional actions to address impacts associated with cannabis groundwater diversions. The aquatic base flow was established in consultation with CDFW. The aquatic base flow is established using USGS flow modeling data to calculate mean monthly flows and applying the New England Aquatic Base Flow Standard (ABF Standard) methodology at the compliance gages in the nine priority regions. The aquatic base flow is the set of chemical, physical and biological conditions that represent limiting conditions for aquatic life in stream environments. This allows SWRCB to apply the ABF Standard to the USGS flow modeling data to calculate an aquatic base flow Requirement at additional compliance points, as needed, throughout the state. SWRCB will monitor instream flows during the dry season and evaluate the number and location of cannabis groundwater diversions to determine whether imposition of a groundwater forbearance period or other measures are necessary to address potential localized effects of groundwater diversions.

Compliance Gages and Requirements

Compliance gage assignments have been developed for all watershed areas throughout the state. Numeric instream flow Requirements are applied at a subset of existing gages reported on two websites: (1) the USGS – National Water Information System or (2) DWR – California Data Exchange Center.

Watershed areas that do not have existing gages are assigned a compliance gage for a different location in the same watershed or for a nearby watershed with similar flow characteristics. Cannabis cultivators in ungaged watersheds may be required to install a gage if information indicates that use of the assigned gage does not adequately protect instream flows. Cannabis cultivators in watersheds without an assigned gage may be required to install a gage if information indicates that a gage is necessary to adequately protect instream flows. SWRCB will monitor where cannabis cultivation diversions are located to track areas where locally concentrated cannabis cultivation water diversions within a watershed may adversely affect instream flows.

Many dams in California have existing instream flow requirements through the Federal Energy Regulatory Commission licensing program or through Biological Opinions issued by the National Marine Fisheries Service or the U.S. Fish and Wildlife Service, or through water right decisions. Cannabis cultivators shall comply with either existing instream flow requirements (e.g., SWRCB Orders, Biological Opinions, Federal Energy Regulatory Commission Licensing Program) or the Tessmann instream flow Requirements, whichever is greater.

The instream flow requirement compliance gages are located in areas that are generally representative of the water availability and total demand occurring upstream of the gaging location or in a similar watershed. However, impacts may still occur in areas where there is significant localized cannabis cultivation compared to water availability or where the compliance gage does not accurately reflect the demand in a paired watershed. To help ensure diversion of water for cannabis cultivation does not negatively affect the flows needed for fish spawning, migration, and rearing, or the flows needed to maintain natural flow variability, the cannabis cultivator shall maintain a minimum bypass of at least 50 percent of the streamflow past the cannabis cultivator's point of diversion, in addition to the applicable numeric instream flow requirements.

Land Development and Maintenance, Erosion Control, and Drainage Features

Section 2 of the requirements in Attachment A of the SWRCB Order WQ 2019-0001-DWQ address land development and maintenance, erosion control, and drainage features. These requirements place limitations on earthmoving, including prohibition of grading on slopes that exceed 50 percent; dust control measures; methods to limit the potential for leaks of hazardous or toxic materials into soils and waterways; erosion prevention and sediment capture measures; and standards for drainages associated with access roads, culverts, and land development.

Stream Crossing Installation and Maintenance

The requirements in Attachment A of the SWRCB Order WQ 2019-0001-DWQ place limitations of work in watercourses and permanently ponded areas. Standard practices are provided to address design of watercourse crossings and necessary maintenance activities. Guidance is also provided to address temporary watercourse diversion and dewatering.

Soil Disposal and Spoils Management

The Requirements address the storage of soil, construction, and waste materials associated with cannabis cultivation.

Exemptions

The SWRCB Order WQ 2019-0001-DWQ includes an exemption for when activities are considered to pose a low threat to water quality: personal use cannabis cultivators, indoor commercial cultivation activities, and outdoor commercial cultivation activities that disturb less than 2,000 square feet. Personal use cannabis cultivators are generally not subject to commercial cultivation regulations; indoor and operations that disturb less than 2,000 square feet are considered to be conditional exemption.

Cannabis cultivation activities that disturb an area (in aggregate) less than 2,000 square feet on one parcel or on contiguous parcels managed as a single operation may be conditionally exempt from enrolling under the order but are required to obtain coverage under the waiver of waste discharge requirements. This exemption does not limit the SWRCB's authority to inspect the site, evaluate the exemption status, or evaluate other water quality or water right regulatory requirements.

State Drinking Water Standards

Title 22, Division 4, Chapter 15, of the CCR establishes parameters for safe drinking water throughout the state. These drinking water standards are similar to, but in many cases more stringent than, federal standards. Title 22 contains both primary standards, and secondary standards related to aesthetics (taste and odor). These standards include limits for water quality parameters that may be found in runoff from permitted or unpermitted cultivation sites, such as heavy metals, pesticides, petroleum hydrocarbons, color, foaming agents, turbidity, and total dissolved solids/specific conductance.

Policy for Implementation of Toxics Standards in Inland Surface Waters, Enclosed Bays, and Estuaries of California

In 1994, SWRCB and EPA agreed to a coordinated approach for addressing priority toxic pollutants in inland surface waters, enclosed bays, and estuaries of California. In March 2000, SWRCB adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, commonly referred to as the State Implementation Policy. This policy implements NTR and CTR criteria and

applicable Basin Plan objectives for toxic pollutants. When an RWQCB issues any permit allowing the discharge of any toxic pollutant(s) in accordance with the CWA or the Porter-Cologne Act, the permit's promulgation and implementation must be consistent with the State Implementation Policy's substantive or procedural requirements. Any deviation from the State Implementation Policy requires the concurrence of EPA if the RWQCB is issuing any permit under the CWA. Consistency with the State Implementation Policy would occur when water permits are issued for Proposed Program activities.

California Pesticide Management Plan for Water Quality

The California Pesticide Management Plan for Water Quality is a joint effort between the California Department of Pesticide Regulation (CDPR), County agricultural commissioners, SWRCB, and the RWQCBs to protect water quality from pesticide pollution. To reduce the possibility of pesticides entering groundwater or surface water, a four-stage approach was designed by CDPR and SWRCB. Stage 1 involves educational outreach to the community to prevent pesticide contamination in water supplies. Stage 2 occurs after pesticides are detected in a water supply, and an appropriate response is selected that is safe and site specific. If Stage 2 is not effective, then Stage 3 tactics are employed, which include implementing restricted material use permit requirements, regulations, and other regulatory authority by CDPR and the County agricultural commissioners. In addition, SWRCB and the RWQCBs can employ Stage 4 and a variety of water quality control planning programs and other regulatory measures to protect water quality as necessary.

Surface Water Protection Program

CDPR implements the California Pesticide Management Plan for surface water protection through its Surface Water Protection Program, under a Management Agency Agreement with SWRCB. The Surface Water Protection Program is designed to characterize pesticide residues, identify contamination sources, determine flow of pesticides to surface water, and prepare site-specific mitigation measures. The program addresses both agricultural and nonagricultural sources of pesticide residues in surface waters. It has preventive and response components that reduce the presence of pesticides in surface waters. The preventive component includes local outreach to promote management practices that reduce pesticide runoff. Prevention also relies on CDPR's registration process, in which potential adverse effects on surface water quality, and particularly those in high-risk situations, are evaluated. The response component includes mitigation options to meet water quality goals, recognizing the value of self-regulating efforts to reduce pesticides in surface water as well as regulatory authorities of CDPR, SWRCB, and the RWQCBs.

Pesticide Contamination Prevention Act

The Pesticide Contamination Prevention Act, approved in 1985, was developed to prevent further pesticide contamination of groundwater from legal agricultural pesticide applications. The act defines pesticide pollution as "the introduction into the groundwaters of the state of an active ingredient, other specified product, or degradation product of an active ingredient of an economic poison above a level, with an adequate margin of safety that does not cause adverse health effects." CDPR has compiled a list of pesticide active ingredients on the Groundwater Protection List that have the potential to pollute groundwater. These various pesticides are reviewed and their use is modified when they are found in groundwater.

Groundwater Protection Program

CDPR implements the Pesticide Contamination Prevention Act through its Groundwater Protection Program, which is coordinated with SWRCB under the California Pesticide Management Plan. The Groundwater Protection Program evaluates and samples pesticides to determine whether they may contaminate groundwater, identifies areas sensitive to pesticide contamination, and develops mitigation measures to prevent the movement of pesticides. CDPR may adopt regulations to carry out these mitigation measures. CDPR conducts four groundwater monitoring programs. The first monitors whether pesticides on the Groundwater Protection List with the potential to pollute have been found in groundwater. The second type is four-section monitoring, which monitors wells near a contaminated well. The third monitoring type is sensitive-area monitoring that identifies areas sensitive to pesticide pollution. The fourth type is investigative monitoring, used to identify and understand the factors that affect pesticide movement into groundwater.

State Water Rights System

SWRCB administers a water rights system for the diversion of surface waters (springs, streams, and rivers), including diversion of water from subterranean streams flowing in known and definite channels. The granting of a water right provides permission to withdraw water from a river, stream, or groundwater source for a "reasonable" and "beneficial" use. Water right permits and licenses identify the amounts, conditions, and construction timetables for a proposed diversion. Before issuing the permit, SWRCB must consider all prior rights and the availability of water in the basin, as well as the flows needed to preserve instream uses such as recreation and fish and wildlife habitat. Water rights are administered using a seniority system based on the date of applying for the water right—commonly referred to as "first in time, first in right." Junior water rights holders may not divert water in a manner that would reduce the ability of senior water rights holders to exercise their water right.

All surface water used for cannabis cultivation must be associated with a valid water right, whether the cultivator personally holds such a water right or it is held by the water purveyor supplying the cultivation operation (e.g., a municipal water system or a water delivery service).

Water Rights Administration for Cannabis Cultivation

Medical Cannabis Regulation and Safety Act and Adult Use of Marijuana Act contain provisions that are directly relevant to SWRCB's water rights permit process. For example, Section 19332(d) of the Business and Professions Code requires that SWRCB, in accordance with Section 13149 of the California Water Code and in consultation with CDFW and CDFA, shall ensure that individual and cumulative effects of water diversion associated with cultivation of cannabis do not affect the instream flows needed for fish spawning, migration, and rearing or the flows needed to maintain natural flow variability. California Water Code Section 13149 goes on to describe that this is to be accomplished through adoption of principles and guidelines for diversion and use of water for cannabis cultivation in areas where cannabis cultivation may have the potential to substantially affect instream flows. The principles and guidelines adopted may include, but are not limited to, instream flow objectives, limits on diversions, and requirements for screening of diversions and elimination of barriers to fish passage. The principles and guidelines may include requirements that apply to groundwater extraction where SWRCB determines those requirements are reasonably necessary for purposes of this section. SWRCB, CDFW, and CDFA are actively coordinating on the development of draft principles and guidelines, which will be circulated for public review and comment prior to adoption.

Under the Medical Cannabis Regulation and Safety Act and Adult Use of Marijuana Act, applicants proposing to divert surface water must possess a valid water right. Specifically, an application for a license issued by CDFA must identify at least one of the following water sources:

(1) Retail water supplier;

(2) Groundwater well;

(3) Rainwater catchment system; or

(4) A diversion from a surface waterbody or an underground stream flowing in a known and definite channel

Section 8107 of the regulations describes the supplemental information requirements for water diversions:

(1) A copy of any applicable statement, registration certificate, permits, licenses, or proof of a pending application issued under part 2 (commencing with section 1200) of division 2 of the California Water Code as evidence of approval of a water diversion by the State Water Resources Control Board; and

(2) If the applicant has claimed an exception from the requirement to file a statement of diversion and use pursuant to section 5101 of the Water Code, the applicant shall provide a copy of the documentation submitted to the State Water Resources Control Board before January 1, 2019 demonstrating that the diversion is subject to subsection (a), (c), (d), or (e) of section 5101 of the Water Code.

California Water Code

The California Water Code is enforced by DWR. The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Diversion Water Use

California Water Code Section 5101 requires each person or organization that uses diverted surface water or pumped groundwater from a known subterranean stream after December 31, 1965, to file with SWRCB an initial Statement of Water Diversion and Use prior to July 1 of the following year. Supplemental Statements are required at 3-year intervals following the filing of an Initial Statement if there is continued diversion of water.

The main purpose of the Statement Program is to create a central repository for records of diversions of water. This repository differs from the records of appropriated water rights that are registered, permitted, and licensed. A Statement is not a confirmed water right; it is only a statement of diversion and use.

Sustainable Groundwater Management Act of 2014

The SGMA became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). Local agencies had until January 1, 2017, to elect to become or form a groundwater sustainability agency. In the event a basin is not within the management area of a groundwater sustainability agency, the county within which the basin is located will be presumed to be the groundwater sustainability agency for the basin. However, the county may decline to serve in this capacity (Water Code Section 19724).

In exercising its authority under the SGMA, a groundwater sustainability agency must consider the interests of holders of overlying groundwater rights, among others, and may not make a binding determination of the water rights of any person or entity (Water Code Sections 10723.2, 10726.8). The SGMA also provides local agencies with additional tools and resources designed to ensure that the state's groundwater basins are sustainably managed.

The SGMA also requires DWR to categorize each groundwater basin in the state as high-, medium-, low-, or very low priority (Water Code Sections 10720.7, 10722.4) All basins designated as high- or medium-priority basins must be managed by a groundwater sustainability agency under a groundwater sustainability plan that complies with Water Code Section 10727 et seq. If required to be prepared, groundwater sustainability plans must be prepared by January 31, 2020, for all high- and medium-priority basins that are subject to critical conditions of overdraft, as determined by DWR, or by January 31, 2022, for all other high- and medium-priority basins. In lieu of preparation of a groundwater sustainability plan, a local agency may submit an alternative that complies with the SGMA no later than January 1, 2017 (Water Code Section 10733.6).

Water Conservation Act of 2009

The Water Conservation Act of 2009 (SB X7-7) requires agricultural water suppliers serving more than 25,000 irrigated acres (excluding recycled water deliveries) to adopt and submit to DWR an agricultural water management plan. These plans must include specific content, including reporting on the implementation status of specific Efficient Water Management Practices that were required under the Act. YCFCWD adopted an agricultural water management plan in 2016.

California Nondegradation Policy

In 1968, as required under the federal antidegradation policy described previously, SWRCB adopted a nondegradation policy aimed at maintaining high quality for waters in California. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

a) Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.

b) Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements.

California Well Standards

DWR Bulletins 74-81 and 74-90 authorized the establishment of well standards and regulations pertaining to the construction, alteration, and destruction of wells. California Water Code Section 13750.5 requires that those responsible for the construction, alteration, or destruction of water wells, cathodic protection wells, groundwater monitoring wells, or geothermal heat exchange wells possess a C-57 Water Well Contractor's License. The Contractors State License Board issue this license. California Water Code Section 13751 requires that anyone who constructs, alters, or destroys a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well must file with DWR a report of completion within 60 days of the completion of the work.

State Cannabis Regulations

Cannabis Cultivation Licensing Requirements

CCR Section 8102, Annual License Application Requirements, states:

(dd) If applicable, the applicant shall provide evidence that the proposed premises is not located in whole or in part in a watershed or other geographic area that the State Water Resources Control Board or the Department of Fish and Wildlife has determined to be significantly adversely impacted by cannabis cultivation pursuant to section 8216.

CCR Section 8216, License Issuance in an Impacted Watershed, states:

> If the State Water Resources Control Board or the Department of Fish and Wildlife notifies the department in writing that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area pursuant to section 26069, subdivision (c)(1), of the Business and Professions Code, the department shall not issue new licenses or increase the total number of plant identifiers within that watershed or area while the moratorium is in effect.

CCR Section 8307, Pesticide Use Requirements, states:

(a) Licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation.

(b) For all pesticides that are exempt from registration requirements, licensees shall comply with all pesticide laws and Page 36 of 73 regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols: (1) Comply with all pesticide label directions; (2) Store chemicals in a secure building or shed to prevent access by wildlife; (3) Contain any chemical leaks and immediately clean up any spills; (4) Apply the minimum amount of product necessary to control the target pest; (5) Prevent offsite drift; (6) Do not apply pesticides when

> pollinators are present; (7) Do not allow drift to flowering plants attractive to pollinators; (8) Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies; (9) Do not apply pesticides when they may reach surface water or groundwater; and (10) Only use properly labeled pesticides. If no label is available consult the Department of Pesticide Regulation.

Microbusiness Licensing Requirements

CCR Section 5504. License Issuance in an Impacted Watershed, states:

> If the State Water Resources Control Board or the Department of Fish and Wildlife finds, based on substantial evidence, that a licensed microbusiness' cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area, the Bureau shall not issue new microbusiness licenses that include cultivation activities or increase the total number of plant identifiers within that watershed or area.

LOCAL

Yolo County Code

Stormwater Management and Discharge Control

Chapter 9 of Title 10 the Yolo County Code implements requirements on land uses that discharge stormwater to be controlled in order to protect and enhance the water quality of watercourses and water bodies within the unincorporated areas of the County in a manner consistent with the CWA, the Porter-Cologne Act, and the County Stormwater Management Program, by reducing pollutants in stormwater discharges. Section 10-9.303 requires that construction activities for which a building permit has been issued to implement appropriate BMPs to prevent the discharge of pollutants, to the maximum extent practicable. These pollutants may include, but are not limited to, soils, construction wastes or debris, contaminants from construction materials, tools, and equipment. New development and redevelopment projects are required to implement postconstruction BMPs to control the volume, rate, and potential pollutant load of stormwater runoff, including, but not limited to, requirements to minimize the generation, transport and discharge of pollutants. The owners or operators of facilities required to implement postconstruction BMPs shall enter into a maintenance agreement with the County for maintenance of such features.

Flood Hazards

Chapter 4 of Title 8 of the Yolo County Code establishes development and flood protection standards in Sections 8-4.501 and 8-4.502 for buildings and facilities placed in areas of special flood hazard as defined by FEMA mapping (flood insurance rate mapping). Compliance with flood standards includes elevation of buildings 1 foot above the base flood elevation, floodproofing of the structure to allow passage of waters, and utilities designed to prohibit a discharge into floodwaters. Section 8-4.506 prohibits any activity that would increase the flood elevation over 1 foot.

Well Standards, Criteria, and Regulations

Well standards, criteria, and regulations are provided in Title 6, Chapter 8, Article 10 of the Yolo County Code. The Yolo County Code contains requirements associated with the construction, spacing, disinfection, and abandonment of wells. A permit for drilling or abandoning a well must be obtained from the Yolo County Environmental Health Division.

Stormwater Management Program

The County developed a Storm Water Management Program (SWMP) Planning Document in March 2003 (revised in October 2004) to address stormwater quality within the County's jurisdiction. The SWMP addresses a wide variety of activities conducted in urbanized areas of the County (outside of the incorporated cities) that are sources of pollutants in stormwater. The SWMP identifies BMPs and water quality control measures for construction and operation of development and County facilities (e.g., roadways and parks). The SWMP applies

to all dischargers and potential dischargers in the County that discharge to the County storm drain system, and discharges made directly to natural surface waters within the unincorporated area of the County. Prohibited discharges include pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater, into the County storm drain system, natural surface waters, or watercourses. The SWMP allows exceptions for any discharge regulated under a NPDES permit, waiver, or waste discharge order issued and administered by the state.

Yolo County Improvement Standards

Section 9 of the Yolo County Improvement Standards (Storm Water) includes requirements for stormwater detention and storage, fencing, outfall design, design runoff rates, and drainage diversions.

Section 10 of the Yolo County Improvement Standards (Grading) contains general requirements for grading permit, and addresses plan sheet details, boundary grading, grading near trees, and rolling terrain grading. Appendix J of the Building Code contains the local code used for issuing and enforcing grading permits. Yolo County Improvement Standards Section 11 (Stormwater Quality, Erosion, and Sediment Control) provide details on BMPs determined appropriate for construction and postconstruction activities for development that are used to comply with Yolo County Code requirements.

Yolo County 2030 Countywide General Plan

The following polices are applicable to the project:

- **Policy CC-4.11:** Require site specific information appropriate to each application to enable informed decision-making, including but not limited to the following: biological resources assessment, noise analysis, traffic and circulation assessment, air quality calculations (including greenhouse gases), cultural resources assessment, geotechnical study, Phase One environmental site assessment, title report, storm drainage analysis, flood risk analysis, water supply assessment, sewer/septic capacity and service analysis, and fiscal impact analysis.

- **Policy CO-2.22:** Prohibit development within a minimum of 100 feet from the top of banks for all lakes, perennial ponds, rivers, creeks, sloughs, and perennial streams. The setback will allow for fire and flood protection, a natural riparian corridor (or wetland vegetation), a planned recreational trail where applicable, and vegetated landscape for stormwater to pass through before it enters the water body. Exceptions to this action include irrigation pumps, roads and bridges, levees, docks, boat ramps, and similar uses.

- **Policy CO-5.1:** Coordinate with water purveyors and water users to manage supplies to avoid long-term overdraft, water quality degradation, land subsidence and other potential problems.

- **Policy CO-5.3:** Manage the County's groundwater resources on a sustainable yield basis that can provide water purveyors and individual users with reliable, high quality groundwater to serve existing and planned land uses during prolonged drought periods.

- **Policy CO-5.6:** Improve and protect water quality for municipal, agricultural, and environmental uses.

- **Policy CO-5.16:** Require all development to have an adequate water supply. Require significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment. The assessment shall demonstrate a long-term, reliable water supply satisfactory under normal and above normal rainfall conditions, as well as drought conditions. Satisfy the requirements of CEQA Guidelines Section 15155 to consult with water agencies regarding water supply assessments.

- **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-5.19:** Strive for "water-neutral" development with new water demand offset by efficiency improvements elsewhere in the system. Require all new developments to offset new water demands to the greatest extent feasible.

- **Policy CO-23:** Support efforts to meet applicable water quality standards for all surface and groundwater resources.

- **Action CO-A93:** Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from new development and increases in impervious surfaces.

- **Policy PF-2-1:** Improve stormwater runoff quality and reduce impacts to groundwater and surface water resources.

- **Policy PF-2.2:** Construct on-site stormwater detention facilities that are designed so that runoff from the 100-year storm event does not: (1) result in an increase in peak release rate; (2) result in a time decrease associated with the time of concentration; (3) contribute to adjacent flood problems; and/or (4) significantly alter the direction of runoff.

- **Policy PF-2.4:** Encourage sustainable practices for stormwater management that provide for groundwater recharge and/or improve the quality of runoff through biological filtering and environmental restoration.

- **Action PF-A14:** Minimize pollution of stormwater, receiving water bodies and groundwater, and maximize groundwater recharge potential by:

    - Implementing planning and engineering design standards that use low impact development techniques and approaches to maintain and mimic the natural hydrologic regime.

    - Utilizing "infiltration" style low-impact development technologies.

    - Following stormwater Best Management Practices during and after construction.

- **Action PF-A15:** Continue to implement and enforce stormwater management requirements, guidelines and best practices, including the Yolo County Drainage Manual, that enable existing and new systems to meet applicable State and federal permit requirements.

Capay Valley Area Plan

The following policies and implementation measures are applicable to the project.

Agriculture

- **Policy 6:** Protect reliable and affordable ground water and aquifer supplies and recharge for agricultural uses.

- **Implementation Measure 1:** The County shall ensure that water resources in the Capay Valley area are reserved primarily for agricultural uses.

- **Implementation Measure 2:** The County shall continue to work with State Water Resources and other government water agencies to expand monitoring of groundwater quantity and quality to protect agricultural use of groundwater supplies.

Air, Groundwater, and Surface Water Pollution

- **Policy 1**: The County shall implement a plan to identify, monitor, and reduce the toxicity of each pollution factor.

3.10.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the County. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects from implementing the CLUO under each of the five alternatives, based on the thresholds of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local regulations, ordinances, and regulations. Baseline, for the purposes of this analysis, assumes that new or relocated cannabis cultivation sites would be distributed as follows (see Appendix D):

- 33 percent of sites would be located on land areas currently in row crop production,
- 39 percent of sites would be located on land areas currently in orchard or vineyard production, and
- 28 percent of sites would be located on land areas currently used for grazing/pastureland.

The CLUO and state regulations require each commercial cannabis cultivation operation to obtain and disclose a legal water supply source. In Yolo County, possible water supplies include domestic water service from a local service provider (e.g., CSDs), water purchased from YCFCWCD, rainwater capture to storage facilities, and groundwater from on-site wells. While water supplies may be obtained from YCFCWCD or through riparian surface water rights, this analysis assumes that water would be supplied exclusively from groundwater because cannabis cultivation sites are generally located in rural areas and not in close proximity to where municipal water sources are available. It is possible that cannabis cultivation may use purchased water conveyed through agricultural canals; however, it is not considered likely because producing groundwater on-site is far more economically advantageous (i.e., no cost upon well completion) and not contingent on rainfall and other factors that limit surface water availability. It is also assumed that new cannabis uses would use farmlands that already use groundwater and have irrigation demands within the range of crop uses identified in Table 3.10-3.

The use of riparian water rights would be required to comply with the instream flow requirements and restrictions in Attachment A of SWRCB Order WQ 2019-0001-DWQ that provide protection of aquatic resources. The reader is referred to Section 3.15, “Utilities and Service Systems,” for an analysis of potential impacts to public water supply systems.

The following water demand factors were derived from information provided by existing cannabis cultivation operations in the County, estimates for indoor cannabis cultivation from Santa Cruz County (Santa Cruz 2017) and the 2015 City of Sacramento Urban Water Management Plan (water demands for commercial and industrial uses) and were considered when estimating annual water demand factors for each alternative:

- Outdoor Cultivation: 1.39 af per year (afy) per acre of cultivation
- Mixed-Light Cultivation: 2.65 afy per acre of cultivation
- Indoor Cultivation: 4.88 afy per acre of cultivation
- Nurseries: same water demand as 1 acre of indoor cannabis cultivation for each site
- Processing: 0.35 afy per site based on employment assumptions provided in Table 2-4 and industrial employee water use demands

- Manufacturing: 1.40 afy per site based on employment assumptions provided in Table 2-4 and industrial employee water use demands

- Testing: 0.84 afy per site based on employment assumptions provided in Table 2-4 and industrial employee water use demands

- Distribution: 0.18 afy per site based on employment assumptions provided in Table 2-4 and commercial employee water use demands

- Retail: 1.44 afy per site based on employment assumptions provided in Table 2-4 and commercial employee water use demands

- Microbusiness: 1.26 afy per site based on employment assumptions provided in Table 2-4 and industrial employee water use demands

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address hydrologic conditions of the County and are considered important by the state, CEQA, and Yolo County.

The project would result in a significant impact related to hydrology and water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality;

- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- substantially alter the existing drainage pattern of the County, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:

    - result in substantial on- or off-site erosion or siltation,

    - substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site,

    - create or contribute runoff water that 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;

- in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As described in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO would not result in the risk of releasing pollutants from tsunamis or seiches. The CLUO would also not impede a sustainable groundwater management plan. Therefore, these impact issue areas are not further evaluated.

IMPACT ANALYSIS

Impact HYDRO-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface Water or Groundwater Quality through Development or Alteration of Drainage Patterns

Operation of cannabis sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could have the potential to modify surface drainage conditions in such a manner that increased sedimentation and erosion could take place or result in discharge of other pollutants, leading to surface water and groundwater quality degradation. This could further affect waterways subject to the 303(d) list. Compliance with the CLUO and SWRCB Order WQ 2019-0001-DWQ performance standards would control potential construction and operational water quality impacts. This impact would be **less than significant** for all alternatives.

Construction and operation of cannabis cultivation and noncultivation uses have the potential to degrade water quality in various ways, including discharges of sediment to surface water from roads or other land improvements; discharges of fertilizers, pesticides, and other chemicals to surface waters or groundwater; discharges of fertilizers and pesticides to surface water or groundwater; spills or leaks of fuels, lubricants, hydraulic oil, or other chemicals associated with construction, pumps, or other equipment. In addition, construction of on-site improvements and buildings can lead to erosion and further degradation of surface water quality during construction. Waterways listed on the 303(d) list are reported to contain excessive levels of various pesticides and herbicide, such as group A pesticides, malathion, chlordane, DDT, and dieldrin. While it is generally stated that sources of these types of pollutants are unknown, in the 303(d), it is reasonable to assume that past and on-going agricultural practices have caused this contamination.

As described in Section 3.10.2, "Regulatory Setting," SWRCB Order WQ 2019-0001-DWQ contains requirements for cannabis cultivation sites. As shown in Table 3.10-4, these requirements vary based on the area of disturbance and risk level, which concerns slope of the cultivation area and proximity to a water body. For example, under the SWRCB Order WQ 2019-0001-DWQ, sites with a disturbed area of less than 2,000 square feet may be conditionally exempt and may obtain coverage under the waiver of discharge requirements, which contain minimal requirements. In contrast, sites that have a disturbed area that is greater than 1 acre (i.e., Tier 1), and located on a slope between 30 and 50 percent (moderate risk).

Because sites with disturbed areas covering less than 2,000 square feet may obtain coverage under the waiver of waste discharge requirements, many of the protective measures that are required for sites with larger disturbed area are not required under SWRCB Order WQ 2019-0001-DWQ. For instance, technical report preparation would be limited to a site closure report under the waiver, while depending on the size of the site and risk level, additional reports may be required, including a site management plan, site erosion sediment control plan, disturbed area stabilization plan, and nitrogen management plan. In addition, sites with a disturbed area of less than 2,000 square feet are not subject to monitoring and reporting programs under the Order.

However, Section 8-2.1408(V) of the CLUO includes the following soil stabilization requirements and performance standards for all cannabis uses, under all of the alternatives:

> Grading/Land Clearing – No grading or land clearing for cannabis activities may occur without prior authorization pursuant to an approved Cannabis Use Permit, and a County Grading Permit, if applicable. Grading or land clearing in advance of approved permits is grounds for denial/revocation of any County Cannabis Use Permit and/or County Cannabis License. Grading and drainage shall be implemented in a manner that prevent soil erosion, and the accumulation of water, except in areas intended for retention. Grading and/or land clearing requires the issuance of a County Grading Permit and must be conducted subject to a State construction storm water permit, if applicable. CDFA licensees shall demonstrate compliance with the principles and guidelines for discharge and

> water quality contained in the Cannabis Cultivation Policy of the State Water Resources Control Board. Excessive grading and disturbance shall be avoided. Cannabis activities on slopes of ten percent or greater require review and approval by the County Engineer to ensure the application of appropriate environmental protections and best management practices to control for erosion, sedimentation, and water quality to acceptable levels. A geotechnical analysis by a licensed civil engineer in the State of California may be required at the County's discretion, to minimize erosion, sedimentation, and water quality to acceptable levels.

Section 8-2.1408(J) of the CLUO provides the following performance standards for drainage improvements and water quality control:

> Drainage and Storm Water Discharge – Drainage and storm water must be discharged into approved on-site stormwater management systems. Site drainage, runoff, and storm water discharge shall comply with the State Water Board Cannabis Policy and Cannabis General Order and the County Improvement Standards. Microbusiness permittees that include cultivation shall satisfy Section 5501(a) of the BCC Regulations. CDFA licensees shall demonstrate compliance with the principles and guidelines for discharge and water quality contained in the Cannabis Cultivation Policy of the State Water Resources Control Board.

These performance standards under the CLUO are consistent with water quality protection provisions under General Plan Policies CO-5.6, CO-5-17, CO-23, PF-2.1, and PF-2.4 and Actions CO-A93, PF-A14, and PF-A15.

While SWRCB Order WQ 2019-0001-DWQ contains various requirements that would protect against degradation of water quality, a waiver may be obtained for sites less than 2,000 square feet. The proposed performance standards listed above would extend to all sites, regardless of disturbance area, and require all cannabis uses to prevent erosion and to route discharge drainage and stormwater into a County-approved on-site stormwater management system. While sites that are greater than 2,000 square feet would be subject to more stringent requirements, appropriately, Sections 8-2.1408(J) and 8-2.1408(V) would ensure that discharge from smaller sites, less than 2,000 square feet, cannot reach waterways and cause or contribute to degraded water quality conditions.

In addition, outdoor commercial cultivation sites are required to comply with the Yolo County ILRP, which is designed to help farmers in the County to protect water quality from discharges of irrigation water and storm water that enters surface water bodies. The ILRP fulfills the conditions and requirements of the WDR General Order R5-2014-0030- R1 for waste discharges from irrigated lands, which includes surface water quality monitoring and analysis on the pesticides, herbicides, nutrients and other agricultural products. The required enrollment in this program protects against degrading of water that accepts runoff from agricultural activities.

Noncultivation uses would also be subject to the requirements of the County's Stormwater Management and Discharge Ordinance and the SWMP, which requires water quality controls (BMPs) for construction and operational stormwater discharges to prevent the discharge of pollutants (Yolo County Code Section 10-9.303). In addition, the Yolo County Improvement Standards (Section 9, Storm Water) includes requirements for stormwater detention and storage, fencing, outfall design, design runoff rates, and drainage diversions; and Section 11 of the Yolo County Improvement Standards contains details on BMPs determined appropriate for construction and post-construction activities. Nonagricultural activities within the County are also subject to grading permit requirements, which limits the potential for erosion to occur from development. These requirements provide protective measures that ensure that discharge related to construction and operation of individual projects associated with the CLUO would not degrade water quality.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas that would provide land area that could

capture any soil erosion and sedimentation on-site. Given the minor extent of this potential ground disturbance contained within existing developed parcels, no significant water quality impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to due to zoning standards under the CLUO. While the total number of cultivation sites would not increase, relocation could result in the construction of sites is assumed involve approximately 18 acres of development that could result in soil erosion and potential operational water quality impacts (see Table 2-5).

As discussed above, compliance with the requirements of SWRCB Order WQ 2019-0001-DWQ. and Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, the Yolo County ILRP, and the County's Stormwater Management and Discharge Ordinance would place requirements on all cannabis use types that would reduce the potential to degrade water quality. Implementation of the CLUO Sections 8-2.1408(J) and 8-2.1408(V) is more stringent than the existing state and County regulations because it would ensure that discharge from smaller sites, less than 2,000 square feet, cannot reach waterways and cause or contribute to degraded water quality conditions. In addition, relocated sites would be required to comply with site closure procedures under SWRCB Order WQ 2019-0001-DWQ, which must describe, to the satisfaction of SWRCB, how the site would be decommissioned to prevent sediment and turbidity discharge.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning and buffer requirements and the additional 54 new cannabis uses that could develop approximately 164 acres (see Table 2-5). Exhibit 2-5 identifies the assumed distribution of cannabis uses.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffer requirements for personal use would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation.

This impact would be **less than significant** under Alternative 2

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites and the additional 186 new cannabis uses could develop approximately 379 acres (see Table 2-5). As shown in Exhibit 2-6, these cannabis sites would be spread countywide.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffers requirements for personal use would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation.

This impact would be **less than significant** under Alternative 3

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

This alternative assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites. It also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation. This alternative also assumed the construction of two new mixed-light or indoor cultivation sites and a total of 52 new noncultivation uses. The assumed relocations of nine cultivation sites and the development of the 54 new cannabis uses would develop approximately 122 acres (see Table 2-5). As shown in Exhibit 2-7, it is assumed that existing and new cannabis uses would generally be concentrated along the SR 16 corridor west of the City of Woodland.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, and Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning and buffer requirements and the additional 52 new cannabis uses assumed under this alternative could develop approximately 163 acres (see Table 2-5). As shown in Exhibit 2-8, it is assumed existing and new cannabis uses would generally be concentrated along the SR 16 corridor west of the City of Woodland.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, and Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HYDRO-2: Decrease Groundwater Supplies or Interfere with Groundwater Recharge That May Impede Sustainable Groundwater Management and Increase Demand for Water Supply

Commercial cannabis operations in the County that may occur under the CLUO are assumed to use groundwater as the primary water supply source. Under Alternative 1, there would be no increase in current groundwater consumption. Water demand for new cannabis uses under Alternatives 2, 3, 4, and 5 would be less than or similar to that for other agricultural crop types grown in the agricultural areas of the County where most cannabis uses are assumed to be located. The estimated countywide demands under each alternative are not expected to result in the substantial loss of groundwater supplies under normal- and dry-year conditions that are used by agricultural uses and public water systems. Thus, Alternatives 2, 3, 4, and 5 would not result in substantially decreased groundwater supplies, interfere substantially with groundwater recharge in the County, or affect land subsidence at the ground surface. This impact would be **less than significant** for all alternatives.

Urban, rural, and agricultural land uses in the County depend upon a reliable water supply, a combination of both groundwater and surface water. Agricultural uses rely on groundwater for approximately 40 percent of their supply in a normal year but rely more heavily on groundwater during drought years (Water Resources Association of Yolo County 2018). Public water systems (e.g., Esparto CSD, Knights Landing CSD, Madison CSD, and Cacheville CSD) also rely on groundwater as their source of water supply. Commercial cannabis operations under the CLUO would use groundwater for water supply. Aquifer overdraft (or overpumping) could result in the loss of available water supply for agricultural and public water systems and can cause permanent damage to an aquifer if the aquifer materials settle, reducing its future storage capacity. In addition, overdraft can cause, and in the past in Yolo County has caused, land subsidence at the ground surface.

Although agencies have tried to improve the understanding of groundwater resources through preparation of groundwater management plans and monitoring programs, there is no information currently available related to quantities of reliable, sustainable groundwater supplies in Yolo County (Water Resources Association of Yolo County 2018). The best available information related to groundwater supplies consists of records of groundwater elevation in the County, which are available beginning in 1953. As depicted in Exhibit 3.10-5, from 2012 through 2017, water supplies in YCFCWCD vary from year to year depending on available resources. Notably, very little water was available for purchase in 2014 because of low rainfall and

persistent drought conditions. Regardless of fluctuations in surface water supplies, which can lead to increased reliance on groundwater pumping, and changes to the countywide cultivated land area, groundwater elevation levels did not fluctuate substantially. This indicates that the Yolo Subbasin maintains consistent depth to groundwater elevations even under dry-year conditions, indicating a substantial amount of available groundwater resources. These conditions are also expected for the Capay Valley, Solano, and Colusa Subbasins given their connectivity in the County.

Agricultural water in Yolo County is primarily supplied from groundwater or through purchasing of supplies from YCFCWCD, which distributes water through canals and laterals. Each crop type in the County, including cannabis, has a different application rate. Table 3.10-9 shows the comparative irrigation rate of these types of crops. (See Table 3.10-3 for additional irrigation rates for crops in Yolo County.)

Table 3.10-9 Comparative Irrigation Rates

Agriculture Type		Acre-Feet per Acre per Year
Row Crops	Field Crops	3.06
	Vegetable Crops	1.50
	Seed Crops	2.14
Orchard (Fruit and Nut Crops)		3.24
Vineyard (Grapes /Wine Grapes)		2.39
Grazing/Pastureland		0
Outdoor Cannabis Cultivation		1.39
Mixed-Light Cannabis Cultivation		2.65
Indoor Cannabis Cultivation		4.88

Compiled by Ascent Environmental 2019

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Personal use cultivation would require approximately 2.8 gallons of irrigation water per day (0.003 afy) when the plants are being cultivated. This is a minor amount of water compared to typical household usage of approximately 80–100 gallons of water per day and would not constitute a substantial increase in groundwater pumping (USGS 2019).

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Under Alternative 1, no new cannabis uses are assumed in the County. With consideration of the water demand ratios for different cultivation sites, and the expected cultivation acreage, water demand under Alternative 1 would be approximately 132 afy (Table 3.10-10). With consideration of all cultivation types, under Alternative 1, the countywide water demand would be approximately 1.69 afy per acre. Water demand at cultivation sites can vary based irrigation practices. This groundwater demand per acre of cannabis cultivation area is currently below the County's annual average agricultural per acre water demands, which have ranged from 2.35 to 3.05 afy per acre of cropland from 2012 through 2015 (as reported in YCFCWCD's 2015 Agricultural Water Management Plan [YCFCWCD 2016]) (see Table 3.10-3).

Under Alternative 1, nine of the existing 78 outdoor cultivation sites are assumed to be relocated because of zoning requirements. Relocated cannabis cultivation operations would require groundwater production from one or more of the subbasins in the County. Consideration of the change in groundwater production associated with cultivation sites would depend on the existing uses on the parcel. As discussed in Appendix D, it is assumed that relocated sites would be on agricultural land.

Table 3.10-10 Alternative 1 Water Demand

Cultivation Type	Demand Ratio	Cultivation Acreage	Acre-Feet per Year
Outdoor Cultivation	1.39 acre-feet per acre per year	63	88
Mixed-Light Cultivation	2.65 acre-feet per acre per year	13	34
Indoor Cultivation	4.88 acre-feet per acre per year	2	10
Total			132
Overall acre-feet per acre per year ratio for the County			1.69

Note: Values are rounded.
Source: Compiled by Ascent Environmental in 2019

Although the overall quantity of groundwater production associated with cannabis cultivation would not change countywide, irrigation rates may change where cannabis sites are relocated to parcels currently in row crop, orchard, or vineyard production. As indicated in Table 3.10-9, water application rates (afy) would increase where outdoor cultivation activities replace grazing/pastureland or decrease where outdoor cultivation activities replace row crops, orchards, or vineyards. Relocated sites could increase or decrease the existing irrigation application rates. Because of uncertainties related to the location of relocated sites and current irrigation water demands and sources (i.e., purchased or pumped on-site), quantifying changes to groundwater pumping is not possible at the programmatic level of this analysis.

Countywide groundwater demand under Alternative 1 would be approximately 132 afy, which would be similar to the annual irrigation demand for approximately 41 acres of orchard. In 2017, approximately 86,130 acres of fruit and nut crops were harvested in Yolo County (Yolo County 2018). Although the quantities of water supplied from purveyors versus on-site groundwater pumping is unknown, orchards cannot be fallowed during dry years. As shown in Table 3.10-3, purchased water varies substantially from year to year, and it is reasonable to assume that during years when relatively little water was purchased from YCFCWCD, groundwater was used as irrigation. (Note that the extent of YCFCWCD-irrigated land, which covers nearly 40 percent of the valley lands in Yolo County, was 6,917 acres greater in 2015 than in 2014, indicating that 6,917 acres may have used groundwater as irrigation.) Thus, the equivalent increase in potential water demand to irrigate approximately 41 acres of orchard is reasonably considered to be insubstantial to countywide demands on the Yolo Subbasin given the area of orchards within the County and the wide range of groundwater pumping for orchard irrigation demand, as well as other crop types, that may occur from year to year. Furthermore, as discussed above, the groundwater conditions in the County have maintained consistent depth to groundwater elevations, regardless of production rates in recent years, indicating a substantial amount of available groundwater resources. Thus, groundwater pumping used to irrigate cannabis cultivation under Alternative 1 would not result in substantially decreased groundwater supplies under normal- and dry-year conditions or interfere substantially with groundwater recharge in the County.

This impact would be **less than significant** under Alternative 1.

<u>Alternative 2: All License Types with Moderate Limits</u>

Table 3.10-11 estimates total cannabis use water demands for assumed cannabis uses under Alternative 2, including water demand from existing cultivation sites.

As identified in Appendix D, over 90 percent of new cannabis uses are assumed to be located on agricultural lands. With consideration of all cultivation types the countywide water demand rate would be approximately 1.70 afy per acre (Table 3.10-11). Water demand at cultivation sites can vary based on irrigation practices. This groundwater demand per acre of cultivation area is below the County's typical agricultural per acre water demands, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). Noncultivation water demands under Alternative 2 would be 0.75 afy per acre (using site acreage assumptions in Table 2-5) and would also be below existing average agricultural water demands. It is assumed that Alternative 2 could create approximately 123 acres of impervious surfaces associated with buildings for cultivation and

noncultivation uses (see Table 2-4). This increase in impervious surface is minor and would not substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Table 3.10-11 Alternative 2 Water Demand

Cannabis Use	Demand Ratio	Cultivation Acreage/Number of Sites	Acre-Feet per Year
Cultivation			
Outdoor Cultivation	1.39 acre-feet per acre per year	64	89
Mixed-Light Cultivation	2.65 acre-feet per acre per year	14	37
Indoor Cultivation	4.88 acre-feet per acre per year	2	10
Overall cultivation acre-feet per year ratio for the County			1.70
Noncultivation			
Nurseries	5.90 acre-feet per acre per site	5	30
Processing	0.35 acre-feet per year per site	5	2
Manufacturing	1.40 acre-feet per year per site	20	28
Testing	0.84 acre-feet per year per site	5	4
Distribution	0.18 acre-feet per year per site	10	2
Retail	1.44 acre-feet per year per site	2	3
Microbusiness	1.26 acre-feet per year per site	5	6
Overall noncultivation acre-feet per year ratio for the County			0.75
Countywide Total Groundwater Demand (acre-feet per year)			**211**

Note: Values are rounded.

Source: Compiled by Ascent Environmental in 2019

Assumed cannabis uses under Alternative 2 would increase cannabis-related groundwater demand. As discussed above for Alternative 1, because of uncertainties related to the location of sites and existing irrigation water demands and sources on the parcel accepting the relocation (i.e., purchased or pumped on-site), quantifying changes to groundwater pumping is not possible at the programmatic level of this analysis. Regardless of this uncertainty, countywide groundwater demand under Alternative 2 would be approximately 211 afy, which would be similar to the annual irrigation demand for approximately 65 acres of orchard (based on the irrigation demand data in Table 3.10-9). For the reasons described above for Alternative 1, although the relative quantities of water derived from groundwater or surface water purveyors is unknown, the equivalent increase in potential water demand to irrigate 65 acres of orchards is reasonably considered to be insubstantial to countywide demands on the County's groundwater basins given the area of orchards within the County and the wide range of groundwater pumping for orchard irrigation demand, as well as other crop types, that may occur from year to year. Furthermore, as discussed above, the County groundwater conditions have maintained consistent depth to groundwater elevations, regardless of production rates in recent years, indicating a substantial amount of available groundwater resources. Thus, groundwater pumping associated with cannabis activities under Alternative 2 would not result in substantially decreased groundwater supplies under normal- and dry-year conditions or interfere substantially with groundwater recharge in the County.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Table 3.10-12 estimates total cannabis use water demand for assumed cannabis uses under Alternative 3, including water demand from existing cultivation sites.

Table 3.10-12 Alternative 3 Water Demand

Cannabis Use	Demand Ratio	Cultivation Acreage/Number of Sites	Acre-Feet per Year
Cultivation			
Outdoor Cultivation	1.39 acre-feet per acre per year	128	178
Mixed-Light Cultivation	2.65 acre-feet per acre per year	27	72
Indoor Cultivation	4.88 acre-feet per acre per year	5	24
Overall cultivation acre-feet per year ratio for the County			1.71
Noncultivation			
Nurseries	5.90 acre-feet per acre per site	10	59
Processing	0.35 acre-feet per year per site	10	4
Manufacturing	1.40 acre-feet per year per site	40	56
Testing	0.84 acre-feet per year per site	10	8
Distribution	0.18 acre-feet per year per site	20	4
Retail	1.44 acre-feet per year per site	4	6
Microbusiness	1.26 acre-feet per year per site	10	13
Overall noncultivation acre-feet per year ratio for the County			0.76
Countywide Total Groundwater Demand (acre-feet per year)			424

Note: Values are rounded.

Source: Compiled by Ascent Environmental in 2019

As identified in Appendix D, over 90 percent of new cannabis uses are assumed to be located on agricultural lands. As indicated in Table 3.10-12, the total cultivation water demand under Alternative 3 would be 1.71 afy per acre of cultivation area. Water demand at cultivation sites can vary based on irrigation practices. This irrigation application rate is below the County's typical agricultural per acre water demands, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). Noncultivation water demands would be approximately 0.76 afy per acre (using site acreage assumptions in Table 2-5) and would also be below existing agricultural water demands. It is assumed that Alternative 3 could create approximately 244 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses (see Table 2-4). This increase in impervious surface is minor and would not substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Assumed cannabis uses under Alternative 3 would increase cannabis-related groundwater demand. As discussed above for Alternative 1, because of uncertainties related to the location of sites and existing irrigation water demands and sources on the parcel accepting the relocation (i.e., purchased or pumped on-site), quantifying changes to groundwater pumping is not possible at the programmatic level of this analysis. Regardless of this uncertainty, countywide groundwater demand under Alternative 3 would be approximately 424 afy, which would be similar to the annual irrigation demand for approximately 131 acres of orchard (based on the irrigation demand data in Table 3.10-9). For the reasons described above for Alternative 1, although the relative quantities of water derived from groundwater or surface water purveyors is unknown, the equivalent increase in potential water demand to irrigate 131 acres of orchards is not substantial given the wide range of groundwater pumping for orchard irrigation demand that may occur from year to year. Furthermore, as discussed above, the County groundwater basins have maintained consistent depth to groundwater elevations, regardless of production rates in recent years, indicating a substantial amount of available groundwater resources. Thus, groundwater pumping associated with cannabis activities under Alternative 3 would not result in substantially decreased groundwater supplies under normal- and dry-year conditions or interfere substantially with groundwater recharge in the County.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types

Table 3.10-13 estimates total cannabis use water demand for assumed cannabis uses under Alternative 4, including water demand from the conversion of existing outdoor cultivation sites to mixed-light and indoor cultivation operations.

Table 3.10-13 Alternative 4 Water Demand

Cannabis Use	Demand Ratio	Cultivation Acreage/Number of Sites	Acre-Feet per Year
Cultivation			
Mixed-Light Cultivation	2.65 acre-feet per acre per year	68	180
Indoor Cultivation	4.88 acre-feet per acre per year	12	59
Overall cultivation acre-feet per year ratio for the County			2.99
Noncultivation			
Nurseries	5.90 acre-feet per acre per site	5	30
Processing	0.35 acre-feet per year per site	5	2
Manufacturing	1.40 acre-feet per year per site	20	28
Testing	0.84 acre-feet per year per site	5	4
Distribution	0.18 acre-feet per year per site	10	2
Retail	1.44 acre-feet per year per site	2	3
Microbusiness	1.26 acre-feet per year per site	5	6
Overall noncultivation acre-feet per year ratio for the County			0.75
Countywide Total Groundwater Demand (acre-feet per year)			314

Note: Values are rounded.

Source: Compiled by Ascent Environmental in 2019

Under Alternative 4, existing outdoor cultivation sites would be relocated and converted to indoor or mixed-light operations. These relocated sites would increase irrigation rates where mixed-light operations occur and decrease where indoor operations replace row, orchard, or vineyard production. Water application rates (af per acre per year) would increase where indoor and mixed-light cultivation activities replace grazing/pastureland.

As identified in Appendix D, over 90 percent of new cannabis uses are assumed to be located on agricultural lands. Total cultivation water demand under Alternative 4 would be approximately 2.99 afy per acre of cultivation area. Water demand at cultivation sites can vary based on irrigation practices. This groundwater demand per acre of cultivation area is within the County's typical agricultural per acre water demands, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). Noncultivation water demands under Alternative 4 would generate 0.75 afy per acre (using site acreage assumptions in Table 2-5) and would be below existing agricultural water demands. It is assumed that Alternative 4 could create approximately 209 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses (see Table 2-4). This increase in impervious surface is minor and would not substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Assumed cannabis uses under Alternative 4 would increase cannabis-related groundwater demand. As discussed above for Alternative 1, because of uncertainties related to the location of sites and existing irrigation water demands and sources on the parcel accepting the relocation (i.e., purchased or pumped on-site), quantifying changes to groundwater pumping is not possible at the programmatic level of this analysis. Regardless of this uncertainty, countywide groundwater demand under Alternative 4 would be approximately 314 afy, which would be similar to the annual irrigation demand for 97 acres of orchard (based on the irrigation demand data in Table 3.10-9). For the reasons described above for Alternative 1, although the relative quantities of water derived from groundwater or surface water purveyors is unknown, the equivalent

increase in potential water demand to irrigate 97 acres of orchards is not substantial given the wide range of groundwater pumping for orchard irrigation demand that may occur from year to year. Furthermore, as discussed above, the County groundwater basins have maintained consistent depth to groundwater elevations, regardless of production rates in recent years, indicating a substantial amount of available groundwater resources. Thus, groundwater pumping associated with cannabis activities under Alternative 4 would not result in substantially decreased groundwater supplies under normal- and dry-year conditions or interfere substantially with groundwater recharge in the County. This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Table 3.10-14 estimates total cannabis use water demand for assumed cannabis uses under Alternative 5, including water demand from existing cultivation sites.

Table 3.10-14 Alternative 5 Water Demand

Cannabis Use	Demand Ratio	Cultivation Acreage/Number of Sites	Acre-Feet per Year
Cultivation			
Outdoor Cultivation	1.39 acre-feet per acre per year	64	89
Mixed-Light Cultivation	2.65 acre-feet per acre per year	14	37
Indoor Cultivation	4.88 acre-feet per acre per year	2	10
Overall cultivation acre-feet per year ratio for the County			1.70
Noncultivation			
Nurseries	5.90 acre-feet per acre per site	5	30
Processing	0.35 acre-feet per year per site	5	2
Manufacturing	1.40 acre-feet per year per site	20	28
Testing	0.84 acre-feet per year per site	5	4
Distribution	0.18 acre-feet per year per site	10	2
Microbusiness	1.26 acre-feet per year per site	5	6
Overall noncultivation acre-feet per year ratio for the County			0.73
Countywide Total Groundwater Demand (acre-feet per year)			208

Note: Values are rounded.

Source: Compiled by Ascent Environmental in 2019

As identified in Appendix D, all cannabis uses are assumed to be located on agricultural. Total cultivation water demand under Alternative 5 would be approximately 1.70 afy per acre of cultivation area. Water demand at cultivation sites can vary based on irrigation practices. This groundwater demand per acre of cultivation area is below the County's typical agricultural per acre water demands, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). Noncultivation water demands under Alternative 5 would generate 0.73 afy per acre (using site acreage assumptions in Table 2-5) and would also be below existing agricultural water demands. It is assumed that Alternative 5 could create approximately 123 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses (see Table 2-4). This increase in impervious surface is minor and would not substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Assumed cannabis uses under Alternative 5 would increase cannabis-related groundwater demand. As discussed above for Alternative 1, because of uncertainties related to the location of sites and existing irrigation water demands and sources on the parcel accepting the relocation (i.e., purchased or pumped on-site), quantifying changes to groundwater pumping is not possible at the programmatic level of this analysis.

Regardless of this uncertainty, countywide groundwater demand under Alternative 5 would be approximately 208 afy, which would be similar to the annual irrigation demand for approximately 64 acres of orchard (based on the irrigation demand data in Table 3.10-9). For the reasons described above for Alternative 1, although the relative quantities of water derived from groundwater or surface water purveyors is unknown, the equivalent increase in potential water demand to irrigate approximately 64 acres of orchards is not substantial given the wide range of groundwater pumping for orchard irrigation demand that may occur from year to year. Furthermore, as discussed above, the County groundwater basins have maintained consistent depth to groundwater elevations, regardless of production rates in recent years, indicating a substantial amount of available groundwater resources. Thus, groundwater pumping associated with cannabis activities under Alternative 5 would not result in substantially decreased groundwater supplies under normal- and dry-year conditions or interfere substantially with groundwater recharge in the County.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HYDRO-3: Impede or Redirect Drainage Patterns in a Manner That Would Result in Flooding

Operation of commercial cannabis sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would create new impervious surfaces, buildings, and other improvements that could affect drainage flows that could alter flooding conditions and generate increased flooding hazards. Compliance with the CLUO performance standards and Yolo County Code requirements would ensure stormwater flows are addressed on-site and changes in drainage flows do not increase flooding hazard impacts. This impact would be **less than significant** for all alternatives.

Exhibit 3.10-6 shows the extent of floodplain conditions in the unincorporated area of the County that includes most of the agricultural areas. Construction of new cannabis sites would create new impervious surfaces, buildings, and other improvements that could affect drainage flows that could alter and increase the extent of flooding conditions.

Chapter 4 of Title 8 of the Yolo County Code establishes development and flood protection standards in Sections 8-4.501 and 8-4.502 for buildings and facilities placed in areas of special flood hazard as defined by FEMA. Compliance with flood standards includes elevation of buildings 1 foot above the base flood elevation, floodproofing of the structure to allow passage of waters, and utilities designed to prohibit a discharge into flood waters. Section 8-4.506 prohibits any activity that would increase the flood elevation over 1 foot. CLUO Sections 8-2.1408(F) and 8-2.1408(NN) requires that all building and site designs comply with all applicable codes, standards, and regulations, including the County's flood control standards. CLUO Section 8-2.1408(J) also requires that site drainage be accommodated in an approved on-site storm management system. These performance standards would be consistent with General Plan Policy PF-2.2.

In addition, Section 9-6 of the Yolo County Improvement Standards states:

> Sufficient stormwater detention volume shall be provided such that the probability of the post development release rate exceeding 0.1 cfs/acre of development shall be less than one percent (1.0%) per year. The stormwater detention volume shall not be less than the difference between pre- and post- development flows from the development site in the 100-year, 24 hour storm event.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be

required to be outside of front yard and side yard setback areas. Given minimal size of the cultivation area and its location within a developed parcel, no significant drainage or flooding impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to zoning standards under the CLUO. While the total number of cultivation sites would not increase, the assumed relocation could result in the construction of new cultivation sites that may involve 18 acres of development (see Table 2-5).

Relocations would be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Flood Protection Ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Thus, compliance with these standards would ensure that drainage is managed on each cannabis site and avoid substantial increases in the base flood elevation.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning and buffer requirements and the additional 54 new cannabis uses that could develop approximately 164 acres (see Table 2-5). As shown in Exhibits 2-5 and 3.10-6, approximately 20 new cannabis sites would be located near floodplain areas.

Cannabis uses would be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Flood Protection Ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Thus, compliance with these standards would ensure that drainage is managed on each cannabis site and substantial increases in the base flood elevation would be avoided.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning requirements and the additional 186 new cannabis uses could develop approximately 379 acres (see Table 2-5). As shown in Exhibits 2-6 and 3.10-6, it is assumed that approximately 55 new cannabis sites would be located near floodplain areas.

Cannabis uses would be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Flood Protection Ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Thus, compliance with these standards would ensure that drainage is managed on each cannabis site to avoid substantial increases in the base flood elevation.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

This alternative assumed the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning requirements. It also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation. Building restrictions in flood areas along the Sacramento River may also require five cultivation site relocations under this alternative. This alternative also assumed the construction of two new mixed-light or indoor cultivation sites and a total of 52 new noncultivation uses. Relocations of nine cultivation sites and the development of the 54 new cannabis uses would develop approximately 122 acres (see Table 2-5). As shown in Exhibits 2-7 and 3.10-6, approximately 45 new cannabis sites and new buildings associated with the conversion of outdoor cultivation to mixed-light or indoor operations would be located near floodplain areas.

Cannabis uses would be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Flood Protection Ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Thus, compliance with these standards would ensure that drainage is managed on each cannabis site to avoid substantial increases in the base flood elevation.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites due to zoning and buffer requirements and the additional 52 new cannabis uses assumed under this alternative could develop approximately 163 acres (see Table 2-5). As shown in Exhibits 2-8 and 3.10-6, approximately 22 new cannabis sites would be located near floodplain areas.

Cannabis uses would be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Flood Protection Ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Thus, compliance with these standards would ensure that drainage is managed on each cannabis site to avoid substantial increases in the base flood elevation.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact HYDRO-4: Conflict with a Water Quality Control Plan

The Central Valley RWQCB's Basin Plan includes areas within Yolo County, covering the Sacramento and San Joaquin river basins. Activities associated with the CLUO include irrigated agriculture and industrial uses, both of which are listed as major water quality concerns in the Basin Plan. Water quality control plans that are applicable to cannabis cultivation have been developed to meet the goals of the Basin Plan, including the ILRP, which regulates discharges due to agricultural operations; and, the SWRCB Order WQ 2019-0001-DWQ. Cannabis facilities, including indoor cultivation, microbusiness, retail, processing, manufacturing, testing, nursery, and distribution could be located in community service district (CSD) service areas or other municipal service district areas where disposal to wastewater treatment facilities (WWTFs) could be available. This impact would be **significant** for all alternatives.

The Central Valley RWQCB's Basin Plan includes areas within Yolo County, covering the Sacramento and San Joaquin river basins. Activities associated with the CLUO include irrigated agriculture and industrial uses, both of which are listed as major water quality concerns in the Basin Plan. Water quality control plans that are applicable to cannabis cultivation that help to meet the goals of the Basin Plan, and subject to uses identified in the CLUO, include:

- ILRP, which regulates discharges due to agricultural operations, and
- SWRCB Order WQ 2019-0001-DWQ.

Cannabis facilities, including indoor cultivation, microbusiness, retail, testing, nursery, and distribution could be located in CSD or municipal service areas where disposal to WWTFs could be available. According to Section 6-19.433 of the Yolo County Code, industrial wastewater is generated from any manufacturing, processing institution, commercial, or agricultural operation, or any operation that produces discharges other than domestic wastewater. Examples of domestic wastewater incudes outflow from toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals (Section 6-19.421 of the Yolo County Code), Based on these definitions, indoor cultivation, microbusiness, retail, processing, manufacturing, testing, nursery, and distribution facilities would likely be considered industrial wastewater producers. Irrigation tail water or hydroponic wastewater from cultivation operations may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver). Other sanitation based wastewaters may also be generated at indoor commercial cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams. Manufacturing and testing uses share general similarities with other manufacturing, laboratory, and research development uses that use solvents (e.g., butane, ethanol, isopropanol, propane, etc.) to draw tetrahydrocannabinol (THC) from the flowers, leaves, and stems of cannabis plants. Disposal of treated wastewater from CSD WWTFs would be subject to WDRs associated with Madison CSD WWTF (Order No. 5-00-039), Esparto CSD WWTF (Order No. 5-01-112), the Knights Landing CSD WWTF (R5-007-0149), and the City of Woodland WWTF. Influent flows to WWTPs are managed by the CSDs and the City of Woodland, which are charged with meeting the requirements set forth under their WDRs.

CLUO Section 8-2.1406(L)(5) would require cannabis uses to meet the following finding for issuance of a Cannabis Use Permit to ensure adequate wastewater services are available to serve the site:

> Adequate utilities, access roads, drainage, sanitation, and/or other necessary facilities will be provided, as required in applicable County and State regulations, standards, and specifications.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Similar to other typical residential garden activities, no discharge to public wastewater systems would be expected to occur from outdoor personal grow activities.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to due to zoning standards under the CLUO. While the total number of cultivation sites would not increase, relocation could result in the construction of new cultivation sites that may involve 18 acres of development (see Table 2-5).

Compliance with the requirements of SWRCB Order WQ 2019-0001-DWQ, CLUO Sections 8-2.1408(J) and 8-2.1408(V), and the County's Stormwater Management and Discharge Ordinance would place requirements on all cannabis use types that would reduce the potential to degrade water quality. Implementation of the

CLUO Sections 8-2.1408(J) and 8-2.1408(V) is more stringent than the existing state and County regulations because it would ensure that discharge from smaller sites, less than 2,000 square feet, cannot reach waterways and cause or contribute to degraded water quality conditions. In addition, relocated sites would be required to comply with site closure procedures under SWRCB Order WQ 2019-0001-DWQ, which must describe, to the satisfaction of SWRCB, how the site would be decommissioned to prevent sediment and turbidity discharge. Thus, compliance with these regulations would ensure that runoff from cannabis operations cannot reach waterways and would not contribute to or cause substantial water quality degradation such that water quality control plans are adversely affected.

As shown in Exhibit 3.15-2, this alternative does not assume cannabis cultivation sites within CSD or other municipal district boundaries that provide public wastewater service. However, despite these analytical assumptions, future applicants may seek to locate in such areas. Given the possible impacts to wastewater facilities, and the potential to affect a WWTF's ability to meet its WDR, this impact would be **significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumes the relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites due to CLUO zoning and buffer requirements and the additional 54 new cannabis uses that would include microbusiness, retail, processing, manufacturing, testing, nursery, and distribution facilities.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffer requirements would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation or adversely affect water quality control plans.

As shown in Exhibit 3.15-3, Alternative 2 assumes for analysis purposes that a cannabis retail site could be located in the Esparto CSD. Retail cannabis uses do not involve the processing or manufacturing of cannabis that could result in an industrial wastewater discharge to its wastewater treatment system. However, it is possible that other cannabis uses could be located in the Esparto CSD that could result in an industrial wastewater discharge that could damage WWTFs and violate the CSD WDR. Given the possible impacts to wastewater facilities, and the potential to affect a WWTF's ability to meet its WDR, this impact would be **significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed the relocation of nine sites of the 78 existing and eligible cannabis cultivation sites due to zoning restrictions in the CLUO and the additional 186 new cannabis uses that would include microbusiness, retail, processing, manufacturing, testing, nursery, and distribution facilities.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffer requirements would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation or adversely affect water quality control plans.

As shown in Exhibit 3.15-4, Alternative 3 assumes that a cannabis processing site could be located in the Esparto CSD, and three cultivation sites, three testing sites, and four manufacturing sites in the planning area of the City of Woodland that could obtain municipal wastewater service from the City. Wastewater produced at indoor cultivation and noncultivation facilities may contain various constituents that are not typically processed at the WWTFs (i.e., not domestic wastewater) that could damage WWTFs and violate their WDRs. Given the possible impacts to wastewater facilities, and the potential to affect a WWTF's ability to meet its WDRs, this impact would be **significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

This alternative assumed the relocation of nine of the 78 existing and eligible cannabis cultivation sites. It also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation. This alternative also assumed the construction of two new mixed-light or indoor cultivation sites and a total of 52 new noncultivation uses. Relocations of nine cultivation sites and the development of 54 new cannabis uses would include microbusiness, retail, processing, manufacturing, testing, nursery, and distribution facilities.

As shown in Exhibit 3.15-5, Alternative 4 assumes that a manufacturing site could be located in the Esparto CSD. Compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffer requirements would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation or adversely affect water quality control plans.

Similar to Alternative 2, wastewater produced at indoor cultivation and noncultivation facilities may contain various constituents that are not typically processed at the WWTFs (i.e., not domestic wastewater) that could damage WWTFs and violate their WDRs. Given the possible impacts to wastewater facilities, and the potential to affect a WWTF's ability to meet its WDRs, this impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumes relocation of 30 sites of the 78 existing and eligible cannabis cultivation sites and the additional 52 new cannabis uses that would include microbusiness, processing, manufacturing, testing, nursery, and distribution facilities.

As discussed above under Alternative 1, compliance with SWRCB Order WQ 2019-0001-DWQ, the Yolo County ILRP, existing County grading, stormwater, and drainage requirements, Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, and buffer requirements would ensure that runoff from cannabis operations cannot reach waterways and thus would not contribute to or cause substantial water quality degradation or adversely affect water quality control plans.

As shown in Exhibit 3.15-6, this alternative does not assume cannabis uses within CSD or other municipal district boundaries that provide public wastewater service. However, despite these analytical assumptions, future applicants may seek to locate in such areas. Given the possible impacts to wastewater facilities, and the potential to affect a WWTF's ability to meet its WDR, this impact would be **significant** under Alternative 5.

Mitigation Measures

Mitigation Measure HYDRO-4: Prepare a Wastewater Pre-Treatment Program for Commercial Cannabis Activities Discharging to Public Wastewater Systems (Alternatives 1, 2, 3, 4, and 5)

The following shall be added to Section 8.2.1408(TT) of the CLUO:

- Applicants for indoor cultivation and noncultivation cannabis operations shall prepare a wastewater pre-treatment program that will characterize wastewater generated and will identify any additional treatment measures required to allow discharge to a public wastewater system without violating the waste discharge requirements of the facility.

Significance after Mitigation

Mitigation Measure HYDRO-4 would ensure that cannabis uses verify that the affected CSD or other municipal WWTF is capable of accepting wastewater service for the site and that anticipated wastewater effluent quality from indoor and non-cultivation operations would not adversely affect a WWTF's ability to comply with WDRs. This impact would be reduced to a **less-than-significant** level for all alternatives.

3.11 LAND USE AND PLANNING

This section evaluates whether adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would result in impacts to existing land use plans, policies, and regulations. As required by CEQA, this analysis focuses on consistency with policies adopted for the purpose of reducing environmental impacts. The analysis also evaluates whether implementation of the CLUO would result in the physical division of an established community. Included is an evaluation of population and housing resulting from implementation of the CLUO.

The California Department of Food and Agriculture provided comments on the NOP stating that the CalCannabis Programmatic EIR assumed that issues related to conflicts with any and all local land use plans, ordinances, policies and/or resource programs would be most appropriately evaluated in local regulatory program-level documents or site-specific documents. Residents responding to the NOP expressed concerns regarding buffers and setbacks and land use conflicts with residential areas. Another community member expressed concern about several sections of the ordinance and stated a preference that it does not include residences. NOP comment letters are included in Appendix A. Potential conflicts with land use plans and regulations are discussed below. Other neighborhood or quality of life impacts that are associated with physical environmental impacts (including concerns about increased odors, noise, traffic, and light pollution) are considered throughout this EIR under each relevant technical section.

3.11.1 Environmental Setting

The following key sources of data and information were used in the preparation of this section:

- Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011–2019, with 2010 Benchmark (California DOF 2019);
- Yolo County 2030 Countywide General Plan (Yolo County 2009a);
- Yolo County 2030 Countywide General Plan EIR (Yolo County 2009b); and
- Background Report for the Yolo County General Plan Update.

LAND USE

Yolo County consists of approximately 653,550 acres, which includes four incorporated cities totaling approximately 32,300 acres. The four incorporated cities are Davis, West Sacramento, Winters, and Woodland. In addition to the incorporated cities, land owned by state and federal agencies, tribal trust land held on behalf of the Yocha Dehe Wintun Nation, and the University of California, Davis, campus have independent land use decision-making authority and are not under the jurisdiction of Yolo County. There are 11 unincorporated towns in the County: Capay, Guinda, Rumsey, Clarksburg, Dunnigan, Esparto, Knights Landing, Madison, Monument Hills, Yolo, and Zamora. These unincorporated towns are under the jurisdiction of the County. Aside from the small unincorporated communities, the unincorporated area of the County is generally rural and composed primarily of agricultural land uses. This includes existing cannabis cultivation operations including outdoor, mixed-light, and indoor cultivation types. As shown in Exhibit 2-2, most of these cultivation sites are located along the State Route (SR) 16 corridor west of the city of Woodland. There are concentrations of cultivation sites near the communities of Rumsey, Guinda, Capay, Esparto, and Dunnigan.

POPULATION AND HOUSING

Yolo County population was estimated at the end of 2018 to have a total of 222,581 residents and 77,679 dwelling units with 31,200 residents and 7,452 dwelling units located in the unincorporated area of the County (California Department of Finance 2019). The 2018 housing vacancy rate was 5.2 percent countywide (California Department of Finance 2019). Table 3.11-1 provides a summary of population and housing for the region at the end of 2018.

Table 3.11-1 Regional Housing Characteristics (2018)

County/City	Population	Total Dwelling Units	Occupied Dwelling Units	Vacancy Rate (%)	Persons per Household
Yolo County	**222,581**	**77,679**	**73,648**	**5.2**	**2.84**
Davis	69,761	26,932	25,841	4.1	2.64
West Sacramento	53,911	20,049	18,632	7.1	2.88
Winters	7,417	2,452	2,365	3.5	3.13
Woodland	60,292	20,794	19,749	5.0	3.01
Unincorporated	31,200	7,452	7,061	5.2	2.92
Sacramento County	**1,546,174**	**574,449**	**526,804**	**8.3**	**2.89**
Citrus Heights	88,095	35,158	32,490	7.6	2.70
Elk Grove	174,025	54,541	51,243	6.0	3.38
Folsom	79,835	28,053	26,614	5.1	2.78
Galt	26,489	8,122	7,650	5.8	3.44
Isleton	871	433	339	21.7	2.57
Rancho Cordova	74,471	28,021	25,344	9.6	2.93
Sacramento	508,172	196,890	178,872	9.6	2.79
Unincorporated	594,216	223,231	204,252	8.5	2.88
Solano County	**441,307**	**159,586**	**148,301**	**7.1**	**2.90**
Benicia	27,570	11,344	10,666	6.0	2.58
Dixon	19,794	6,573	6,174	6.1	3.21
Fairfield	117,149	39,847	37,344	6.3	3.07
Rio Vista	9,415	4,878	4,319	11.5	2.18
Suisun City	29,447	9,559	9,114	4.7	3.23
Vacaville	98,807	35,095	33,136	5.6	2.78
Vallejo	119,544	44,741	40,728	9.0	2.89
Unincorporated	19,580	7,549	6,820	9.7	2.84
Three-County Total	**2,210,062**	**811,714**	**748,753**	**7.8**	**n/a**

Source: California Department of Finance 2019

3.11.2 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use or population and housing apply to the project.

STATE

State Aeronautics Act

The State Aeronautics Act (Public Utilities Code Section 21001) sets forth requirements for airport land use compatibility planning around public use airports. The *California Airport Land Use Planning Handbook* provides guidance for determining consistency between a general plan and an Airport Land Use Compatibility Plan (ALUCP). The ALUCP contains policies relating to airport noise, the height of structures, trees, and other objects near an airport that affect the use of that airport, and potential safety risks both to people on the ground and to the occupants of aircraft. General plan amendments must be consistent with any applicable ALUCP unless a local governing body overrules the plan by a two-thirds vote and makes specific findings. Prior to amendment of a general plan, a local agency must refer the proposed amendment to the Airport Land Use Commission (ALUC).

LOCAL

Yolo County 2030 Countywide General Plan

The Vision and Principles Chapter identifies that the general objective of the County General Plan is to guide decision-making in the unincorporated areas in the County toward the most desirable future possible. The highest and best use of land within Yolo County is one that combines minimum efficient urbanization with the preservation of productive farm resources and open space amenities.

The following economic, land use and housing policies are relevant to the project. The reader is also referred to Section 3.2, "Agricultural Resources," regarding applicable policies associated with agricultural land uses.

- **Policy AG-1.1:** Protect and enhance the County's four key agricultural sectors. This includes: (1) retaining existing growers and processors of crops; (2) encouraging the growth of emerging crops and value-added processing; (3) supporting small and organic producers and their ability to serve visitors; and (4) enhancing the transfer of new technologies into practical applications for seeds, crops, fuels, alternative energy, food processing, etc.

- **Policy AG-5.1:** Promote markets for locally and regionally grown and/or prepared food and other products and services.

- **Policy AG-3.2:** Allow uses that support agriculture, such as agricultural commercial uses, agricultural industrial uses, direct product sales, processing, farm-based tourism, agricultural research, and farm worker housing, on agricultural land subject to appropriate design review and development standards.

- **Policy AG-3.5:** Encourage the provision of farm worker housing by streamlining permit requirements, reducing fees and requiring inclusionary housing within established communities.

- **Policy AG-3.6:** Strongly encourage cities to share in the responsibility for providing adequate sites to accommodate farm labor housing.

- **Policy AG-3.7:** Support the development of local suppliers for agricultural goods and services, including small-scale and/or mobile processing facilities and distribution centers for locally produced foods.

- **Policy AG-3.8**: Encourage re-use, for agricultural purposes, of agricultural industrial facilities that are no longer needed due to changing economic conditions.

- **Policy AG-3.9:** Support the development of an agricultural marketing and tourism program to coordinate private and public initiatives and to integrate them with County efforts to attract business.

- **Policy AG-3.18:** Allow the location of agricultural commercial, industrial and tourism activities on land designated as Agricultural, consistent with the Land Use and Community Character Element.

- **Policy ED-1.3:** Encourage businesses that promote, provide services, and support farming, with an emphasis on value-added agriculture, agri-tourism, food processing and agricultural suppliers.

- **Policy LU-2.2:** Allow additional agricultural commercial and agricultural industrial land uses in any designated agricultural area, where appropriate, depending on site characteristics and project specifics. Agricultural commercial and/or agricultural industrial development is anticipated as shown in Table LU-7 (Anticipated Agricultural Commercial and/or Agricultural Industrial Growth) and in Figure LU-2 (New Targeted Future Agricultural Commercial and Agricultural Industrial Sites).

  Manage agricultural parcels of less than 20 acres, including antiquated subdivisions where appropriate, to create compatibility with surrounding agricultural uses to the greatest extent possible, including: 1) discourage residential development; 2) encourage lot mergers to achieve larger parcel sizes; 3) encourage clustering of units either within parcels or near existing homes on adjoining parcels to preserve farmland and natural resources; 4) encourage transfers of development rights to areas where additional farm dwellings are desired (e.g. organic farms that are labor intensive); 5) encourage deed restrictions, site design and development themes that support the agricultural use of the land; and 6) aggressively limit the impact of residential development where it does occur.

- **Policy LU-2.4:** Vigorously conserve, preserve, and enhance the productivity of the agricultural lands in areas outside of adopted community growth boundaries and outside of city SOIs [spheres of influence].

- **Police LU-3.1**: Direct all of the County's residential growth to designated areas within the cities and within the growth boundaries of existing unincorporated communities, as depicted on the Land Use Diagram in Figure LU-1 [located in the General Plan], with the exception of individual farm dwellings (houses allowed on agricultural land), other allowed units (e.g. second units, ancillary dwellings, houses allowed in mixed-use commercial areas, etc.) and housing allowed on existing residentially designated land.

- **Policy LU-3.3:** Allow commercial and industrial growth (not including agricultural commercial or agricultural industrial) as shown in Table LU-9 [located in the General Plan], subject to all required County approvals. Within the areas designated for commercial and industrial land uses, where appropriate, the County shall target the following:

  A. Biotechnology facilities development, including development of "high tech" research and development campuses, as well as regional office, business park and light manufacturing nodes.

  B. Research and development space to serve private businesses that result from UC Davis research activities.

  C. Highway-oriented and regional commercial development, particularly along Interstate 5 and Interstate 505 and specialized retail to serve regional populations.

- **Policy LU-3.6**: Maintain the compatibility of surrounding land uses and development, so as not to impede the existing and planned operation of public airports, landfills and related facilities and community sewage treatment facilities.

- **Policy LU-3.8**: The intent of allowing residences in the agricultural areas is to provide dwellings for those directly involved in on-site farming activity, including farm employees, the landowners and their immediate families. All such dwellings shall be encouraged to locate on lands least suited for agricultural use and/or in "clustered" configurations to minimize the conversion of agricultural lands to any other uses.

- **Policy LU-5.1**: Balance land use decisions and land use burdens countywide so that there is not a disproportionate impact to any one group of residents because of age, culture, ethnicity, gender, race, socio-economic status, or other arbitrary factor.

- **Policy LU-5.7:** Support the Community Advisory Committees to ensure direct, local input on land use issues and project applications.

- **Policy CC-1.1:** Encourage private landowners of both residential and commercial properties to maintain their property in a way that contributes to the attractive appearance of Yolo County, while recognizing that many of the land uses in the County, including agriculture and light industry, require a variety of on-site structures, equipment, machinery and vehicles in order to operate effectively.

- **Policy CC-1.7:** Reinforce the growth boundaries for each community through appropriate mechanisms including greenbelts, buffers, conservation easements and other community separators.

Yolo County Community Plans

In addition to the Countywide General Plan, the following local plans provide further area-specific policy provisions, land use, and design standards and guidelines for residential, commercial, and industrial land uses:

Esparto Community Plan (2019)

- **Policy E-LU.2**: The comprehensible and compact scale of the town shall be maintained with businesses, schools, parks and social centers within walking distance of residences.

- **Policy E-LU.7**: Residential density around the town center and along Fremont Street shall be increased to encourage the creation of smaller, more affordable lots.

- **Policy E-LU.28:** Local organizations including the New Season Community Development Corporation, Capay Valley Vision, and the Esparto Chamber of Commerce, shall actively promote, pursue, and attract appropriate industrial development. Of special interest is industry related to agriculture such as meat processing or nut hulling.

Town of Knights Landing Community Plan (1999)

- Open Space for Managed Resource Production Areas

    - **Policy 1:** To avoid the premature conversion of agricultural lands within and outside of the Town limits, residential expansion shall occur only on lands designated for such expansion.

Capay Valley Area Plan (2010)

- **Agriculture Policy 1:** The County shall maintain, encourage, and actively support agricultural use within the Capay Valley Area Plan planning area.

- **Agriculture Policy 5:** The County shall pursue all options, as allowed by law, to eliminate or deter the development of antiquated subdivisions.

- **Agriculture Policy 6:** The County shall retain parcel sizes in agriculturally zoned areas that are large enough to support viable agricultural production.

    - **Implementation Measure 3:** Yolo County shall review future land use proposals in order to encourage the continuation of viable agricultural units.

- **Agriculture Policy 7**: The County shall require that land uses in areas designated for agricultural use shall be limited to those directly related to agricultural production or support of agriculture.

- **Agriculture Policy 8**: The County shall encourage the establishment of small-scale agriculture uses, such as specialty crops, organic farming, cottage industries and specialized animal facilities where small parcels of land presently exist in agricultural areas with suitable soils.

    - **Implementation Measure 1**: Yolo County shall encourage specialty farming areas that contain sufficient restrictions to assure that such areas do not become rural residential or ranchette developments.

    - **Implementation Measure 2**: Yolo County shall recognize the potential for commercial agriculture, such as direct sales, processing, agri-tourism, and other ancillary activities that are compatible with the rural quality of life and unique community character of the Capay Valley.

- **Agriculture Policy 9**: Yolo County, to the extent allowed under State law, shall prevent the subdivision of agricultural land except when the subdivision is beneficial to agriculture.

- **Land Use Goal 1 Policy 1**: The County shall ensure land uses are compatible with the rural agricultural quality of life.

- **Land Use Goal 3 Policy 1:** Goods and services supplied shall support the agricultural base of the community.

Clarksburg Area Community Plan (2015)

- **Policy A1:** Support expanded productivity, conservation, enhancement, and economic viability of privately owned agricultural land.

- **Policy A2:** Support agricultural (including production, processing, distribution, industrial and marketing operations), rural recreation, and open space land uses that sustain and create demand for commercial services within the Clarksburg town area.

- **Policy A4:** Development of agricultural support uses outside the Clarksburg town area should continue to be the focus and direction of the Clarksburg community when considering changes in land use.

Dunnigan Community Plan (2001)

- **Policy D-LU20:** New agriculture related industrial development may be allowed from County Road 8 to Bird Creek on the east side of I-5, west of the Southern Pacific Railroad and County Road 99W. Examples of such uses include farm machinery sales and repair, agricultural processing facilities, product or equipment warehousing, and farm supply stores.

- **Policy D-LU23:** Except for those areas designated as expansion in this plan, agricultural lands in and surrounding the Dunnigan planning area shall be protected from the encroachment of urban development. The conversion of agricultural land to urban uses may only occur on lands within the Plan Area Boundary contiguous to existing development and phased for future urban use on an adopted General Plan map.

Yolo County Zoning Regulations

Yolo County zoning and associated land use/development standards are provided under Title 8, "Land Development and Zoning," of the Yolo County Code. These code provisions set forth regulations relating to minimum lot size, maximum building height and setback from property lines, as well as the uses that are principally permitted and those that require a use permit.

Delta Protection Commission Land Use and Resource Management Plan

The Land Use and Resource Management Plan was adopted in 2010 for the Primary Zone of the Delta that includes a portion of Yolo County. The specified goals for the plan are to "protect, maintain, and where possible, enhance and restore the overall quality of the Delta environment, including but not limited to

agriculture, wildlife habitat, and recreational activities; assure orderly, balanced conservation and development of Delta land resources and improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety" (Delta Protection Commission 2010).

Airport Land Use Compatibility Plan

The Yolo County ALUCP for Yolo County Airports was adopted in 1999 by SACOG serving as the Yolo County ALUC. The ALUCP sets forth the criteria and policies that the ALUC uses in assessing the compatibility between the public use airports and land use development in the areas surrounding them. State law requires that the County, because of its authority over land uses within the ALUC planning area, modify the general plan and any affected specific plans to be consistent with the ALUCP.

There are four airports within Yolo County: Borges-Clarksburg, Watts-Woodland, Yolo County, and University of California Davis airport. The Comprehensive Land Use Plan (CLUP) for the Watts-Woodland Airport was adopted in 1988, and the Borges-Clarksburg Land Use Compatibility Plan was adopted in 1994.

Land use compliance and safety are addressed through implementation of the CLUPs and County Code Section 8-2.903(f) (Airport Overlay Zones) and the development requirements in Section 8-2.906(f) and the CLUPs that address density, building heights, and hazards associated with electrical interference and bird strikes. The reader is referred to Section 3.9, "Hazards and Hazardous Materials," for an analysis of airport land use compatibility and hazards associated with the CLUO.

3.11.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

Evaluation of potential land use and population and housing impacts from implementation of the CLUO is based on a review of documents, including the General Plan, the Yolo County Code, and various community plans. Impacts related to population and housing were determined by comparing the expected number of new employees from assumed cannabis uses to existing population and housing conditions in the region (see Table 3.11-1). Evaluation of potential conflicts with existing communities and adopted land use plans, policies, and regulations is based on the assumed extent of cannabis uses under each alternative (see Table 2-4 and Appendix D) in comparison of the CLUO provisions with the General Plan, community plans, and County Code requirements.

The magnitude of potential impacts is determined based on the following thresholds of significance, listed in Appendix G of the State CEQA Guidelines. Under the CEQA Guidelines, preparation of an EIR is required if substantial evidence indicates the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly (CEQA Guidelines Section 15065(a)(4)). Potential environmental effects on humans are discussed in this EIR in Sections 3.3 ("Air Quality and Odor"), 3.9 ("Hazards and Hazardous Materials"), and 3.12 ("Noise").

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would result in a significant land use and planning/population and housing impact if it would:

- physically divide an established community;

- 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; or

- induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

As described in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO would not result in the substantial displacement of housing or displace people. Therefore, this impact issue area is not further evaluated.

IMPACT ANALYSIS

Impact LU-1: Physically Divide an Established Community

Adoption and Implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would allow for the development of cannabis cultivation and noncultivation uses on individual parcels within the unincorporated area of the County. Cannabis uses could include buildings and features that are similar to other agricultural, commercial, and industrial activities that occur in the County and would not include features that would physically divide an established community. Therefore, this impact would be **less than significant** for all the alternatives.

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits under the adopted CLUO, would introduce land disturbance and buildings; however, implementation of the CLUO would require cannabis sites to meet County building and site design standards, screen outdoor cultivation, and maintain site conditions. Cannabis cultivation and noncultivation sites may include buildings that range in size from 1,000 square feet to over 140,000 square feet that are similar in scale to buildings commonly used in agricultural, commercial, and industrial activities (barns, equipment storage, greenhouses, processing facilities, and temporary hoop houses). Cannabis uses would likely include fencing along the perimeter of the operations that may be noticeable to the public (the reader is referred to Section 3.1, "Aesthetics," for a further analysis of visual impacts of cannabis uses). These features would not create new barriers or physical features (e.g., new highways or land use types that would obstruct existing public access and movement) that could physically divide an established community because construction and operation would be contained on parcels permitted for cannabis uses.

The CLUO includes the following performance standards that address potential nuisance and compatibility concerns that could be perceived as physical divisions within a community:

- Section 8-2.1407. Development Regulations: These regulations limit what zones cannabis uses may be placed. No commercial cannabis uses would be allowed in residential zoned areas and only noncultivation uses would be permitted in commercial and industrial zones.

- Section 8-2.1408(E). Buffers: Buffers are required from outdoor cannabis uses from off-site residences, residentially designated lands, licensed day cares, public parks, recognized places of worship, public or licensed private schools, licensed treatment facilities for drugs or alcohol, federal lands held in trust or proposed before CLUO adoption to be taken into trust for a federally recognized tribe, and licensed youth centers.

- Section 8-2.1408(U). Good Neighbor Communication: Permittees shall make available to property owners and residents/tenants within 1,000 feet of the property line an operable method of communication with a local or on-site responsible party having prompt access to the site/operation/activities. The purpose of this requirement is to facilitate communication between neighbors related to conditions at and operation of the activity.

- Section 8-2.1408(CC). Nuisance: Cannabis uses shall not create a public nuisance or adversely affect the health or safety of nearby residents or businesses by, among other things, creating dust, light, glare, heat, noise, noxious gases, odor, smoke, traffic, vibration, unsafe conditions, or other impacts, in excess of allowable thresholds, or be hazardous due to the use or storage of materials, processes, products, runoff, unauthorized releases or illegal disposal of wastes.

- Section 8-2.1408(PP). Site Maintenance: Permittee shall at all times maintain, manage, and operate the site, all improvements and alterations, and all structures, in good repair, acceptable in appearance, and in reasonably safe condition, including securing all necessary licenses and permits for this work. The site shall be kept free of litter, clutter, and graffiti. The permittee shall prevent and eliminate conditions that constitute a public nuisance.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way. Given these CLUO requirements, no significant land use impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to compliance with zoning standards of the CLUO but no expansion of cannabis cultivation uses would occur.

Existing and relocated cultivation sites would be subject to CLUO standards that are expected to result in improved land use conditions as compared to existing conditions through required site maintenance and good neighbor communication that would avoid nuisance issues (Sections 8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of land use impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County that consists of 52 new cannabis uses (see Table 2-4). Alternative 2 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer requirements between outdoor cannabis uses and defined sensitive receptors.

As described in Section 3.0, "Approach to the Environmental Analysis," and Appendix D, two new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on a single parcel approximately 40 acres in size. Cannabis noncultivation uses would be a new land use that does not currently exist in the County. Alternative 2 assumes that 47 new noncultivation sites would be located on agriculturally zoned land, while 5 sites are assumed to be located within commercial and industrial zoned areas (see Appendix D).

All cannabis uses would be subject to CLUO standards that are expected to address potential land use conflicts that could be perceived to divide a community through buffering (1,000-foot buffers under this alternative) and required site maintenance and good neighbor communication that would avoid nuisance issues (Sections 8-2.1408[E], 8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of land use impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes 186 new cannabis uses would be generally spread throughout the County though 40 new cannabis uses are to be sited along the SR 16 corridor west of the City of Woodland. This alternative is also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning requirements under the CLUO.

As described in Section 3.0, "Approach to the Environmental Analysis," and Appendix D, 25 new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on a single parcel approximately 40 acres in size. Cannabis noncultivation uses would be a new land use that does not currently exist in the County. Alternative 3 assumes that 94 new noncultivation sites would be located on agriculturally zoned land, while 10 sites are assumed to be located within commercial and industrial zoned areas.

All cannabis uses would be subject to CLUO standards that are expected to address potential land use conflicts that could be perceived to divide a community through buffering (75-foot buffers under this alternative) and required site maintenance and good neighbor communication that would avoid nuisance issues (Sections 8-2.1408[E], 8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). The reader is referred to Chapter 4, "Cumulative Impacts and Overconcentration," for a further discussion of land use impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Exhibit 2-7 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses under Alternative 4 (see Table 2-4). Alternative 4 is assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning standards. It was also assumed that 75 of the existing and eligible cannabis sites with outdoor cultivation would convert entirely to indoor or mixed-light (greenhouse) cultivation.

As described in Section 3.0, "Approach to the Environmental Analysis," and Appendix D, two new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on a single parcel approximately 40 acres in size. Cannabis noncultivation uses would be a new land use that does not currently exist in the County. It assumed that 47 new noncultivation sites would be located on agriculturally zoned land, while the 5 sites are assumed to be located within commercial and industrial zoned areas.

All cannabis uses would be subject to CLUO standards that are expected to address potential land use conflicts that could be perceived to divide a community through required site maintenance and good neighbor communication that would avoid nuisance issues (8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of land use impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County that consists of 50 cultivation and noncultivation uses (see Table 2-4). Alternative 5 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer requirements between outdoor cannabis uses and defined sensitive receptors.

As described in Section 3.0, "Approach to the Environmental Analysis," and Appendix D, two new cultivation uses are assumed to be vertically integrated with new cannabis noncultivation uses on a single parcel approximately 40 acres in size. Cannabis noncultivation uses would be a new land use that does not currently exist in the County. This alternative assumes that all new cannabis uses are located on agriculturally zoned land.

All cannabis uses would be subject to CLUO standards that are expected to address potential land use conflicts that could be perceived to divide a community through buffering (1,000-foot buffers under this alternative) and required site maintenance and good neighbor communication that would avoid nuisance issues (Sections 8-2.1408[E], 8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). The reader is referred to Chapter 4, "Cumulative Impact and Overconcentration," for a further discussion of land use impacts associated with concentrated cannabis uses.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact LU-2: 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 adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would include amending the General Plan to acknowledge cannabis, and identifying cannabis operations as permitted uses within specific land use designations. Adoption and implementation of the CLUO would be consistent with General Plan policies related to agricultural, industrial, and commercial land uses and incorporates performance standards that implement environmental protections identified in the General Plan policies and Yolo County Code. This impact would be **less than significant** for all the alternatives.

As described in Section 2.5, "General Plan Amendment," of Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," amendments to the General Plan are proposed to acknowledge cannabis as an agricultural activity and a legal commercial crop, among other things. These amendments would not alter or conflict with General Plan policy provisions that promote and protect agricultural land uses. Implementation of the General Plan amendments and the CLUO would support the growth of an emerging market and promote activities related to agricultural products consistent with General Plan and community plan policies (General Plan policies: AG-3.2, AG-3.4, AG-3.7, AG-3.8, AG-3.16, AG-5.1, ED-1.3, and LU-2.2, Esparto Community Plan Policy E-LU.28, Capay Valley Area Plan Agriculture Policy 8, Clarksburg Area Community Plan Policy A2, and Dunnigan Community Plan Policy D-LU20) (consistent with General Plan policies AG-3.2, AG-3.7, AG-3.18, AG-5.1, and LU-2.2).

The CLUO performance standards incorporate environmental protection measures that are based on General Plan policies and Yolo County Code requirements. These include but are not limited to the following referenced sections. The reader is referred to each technical section of the draft EIR for a further analysis of CLUO consistency with County policies and regulations.

- Sections 8-2.1408(KK) and 8-2.1408(RR) of the CLUO include visual screening and tree preservation measures that implement General Plan policies related to the preservation of the rural and agricultural character of the County and scenic roadways (General Plan Policies CC-1.2, CC-1.5, CC-1.8, CC-1.12, CC-1.15, CC-1.16, CC-1.17, CC-1.19, and CC-4.15). (The reader is referred to Section 3.1, "Aesthetics," and Section 3.4, "Biological Resources.")

- Sections 8-2.1408(F), 8-2.1408(Z), and 8-2.1408(OO) of the CLUO implement General Plan policies associated with nighttime lighting controls and restrictions (General Plan Policies CC-1.3 and CC-4.12). (The reader is referred to Section 3.1, "Aesthetics.")

- Sections 8-2.1406(K), 8-2.1408(D), and 8-2.1408(RR) of the CLUO require cannabis sites to comply with General Plan policies and with the policies and provisions of the Yolo Habitat Conservation Plan/Natural Community Conservation Plan, and Yolo County Oak Woodland Conservation and Enhancement Plan. (The reader is referred to Section 3.4, "Biological Resources.")

- Section 8-2.1408(H) of the CLUO requires that a site survey be conducted to determine the potential for historical and archaeological resources and development of a mitigation plan to protect identified resources in accordance with General Plan Actions CO-A63 and CO-A64 before the issuance of permits. (The reader is referred to Section 3.5, "Cultural Resources.")

- Section 8-2.1408(V) of the CLUO requires soil stability and grading plan approvals that are consistent with Title 7 of the Yolo County Code. (The reader is referred to Section 3.7, "Geology and Soils.")

- Sections 8-2.1408(K), 8-2.1408(Q), and 8-2.1408(FF) of the CLUO require compliance with County and fire district requirements, codes, and fire access requirements and consistency with General Plan Policies PF-4.1, PF-4.2, PF-5.5, PF-5.9, and PF-5.10. (The reader is referred to Section 3.9, "Hazards and Hazardous Materials," and Section 3.13, "Public Services and Recreation.")

- Sections 8-2.1408(LL) and 8-2.1410(D) require the provision of on-site security and implementation of a security plan that would assist law enforcement services consistent with law enforcement provisions of General Plan Policies PF-4.1 and PF-4.2. (The reader is referred to Section 3.13, "Public Services and Recreation.")

- Sections 8-2.1408(J) and 8-21408(V) of the CLUO require incorporation of water quality controls into cannabis sites that are consistent with General Plan Policy CO-5.6 and Yolo County Code Section 10-9.303. (The reader is referred to Section 3.10, "Hydrology and Water Quality.")

- Sections 8-2.1408(F) and 8-2.1408(NN) of the CLUO require cannabis site development to be conducted in compliance with the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506, which identify flood control and protection standards. (The reader is referred to Section 3.10, "Hydrology and Water Quality.")

The General Plan amendment and performance standards of the CLUO would apply equally to all five alternatives. As demonstrated above, adoption and implementation of the CLUO would implement County policy provisions for environmental issues. This impact would be **less than significant** impact under all the alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact LU-3: Induce Substantial Unplanned Population Growth in an Area, Either Directly or Indirectly

Adoption and implementation of the proposed CLUO under each of the five alternatives, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would result in the development of cannabis cultivation and noncultivation sites that would generate new employment opportunities in the County. The potential increase in employees could result in new residents in the County or region. There is currently adequate housing available and planned in the region to accommodate this potential employment growth and the potential increase in population from new employees to the County is within the projected buildout in the General Plan. This impact would be **less than significant** for all alternatives.

Implementation of the CLUO under each of the five alternatives would result in the development of cannabis cultivation and noncultivation sites that would employ people for cultivation, nursery operations, cultivation operations, and processing, manufacturing, testing, distribution and retail activities. Table 3.11-2 summarizes the employment estimates for each alternative included in Table 2-4 in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives."

Construction would include the temporary employment of individuals when new buildings and associated infrastructure are constructed. Because the employment would be temporary and would typically be filled by existing workforce, it would not induce unplanned population growth. Therefore, the following discussions focus on operational impacts.

Operational activities would include permanent and seasonal employment of workers, as explained above and included in Table 3.11-2.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Personal use outdoor cultivation would be an ancillary use to the parcel maintained by the resident. No additional employment would be generated.

Table 3.11-2 Employment Generation by Alternative

Feature	Alternative				
	1	2	3	4	5
Cultivation Uses					
Outdoor Cultivation					
Total Number of Full-Time-Equivalent Employees	284	288	576	n/a	288
Total Number of Seasonal Employees	1,197	1,216	2,432	n/a	1,216
Mixed-Light Cultivation					
Total Number of Full-Time-Equivalent Employees	364	392	756	1,904	392
Indoor Cultivation					
Total Number of Full-Time-Equivalent Employees	35	35	88	211	35
Cultivation Totals					
Total Number of Full-Time-Equivalent Employees	*683*	*715*	*1,420*	*2,115*	*715*
Total Number of Seasonal Employees	*1,197*	*1,216*	*2,432*	*n/a*	*1,216*
Noncultivation Uses					
Nurseries					
Total Number of Full-Time-Equivalent Employees	n/a	360	720	360	360
Processing					
Number of Full-Time-Equivalent Employees	n/a	13	25	13	13
Total Number of Seasonal Employees	n/a	20	40	20	20
Manufacturing					
Number of Full-Time-Equivalent Employees	n/a	200	400	200	200
Testing					
Number of Full-Time-Equivalent Employees	n/a	30	60	30	30
Distribution					
Number of Full-Time-Equivalent Employees	n/a	20	40	20	20
Retail					
Number of Full-Time-Equivalent Employees	n/a	32	64	32	n/a
Microbusiness					
Number of Full-Time-Equivalent Employees	n/a	45	90	45	45
Noncultivation Totals					
Total Number of Full-Time-Equivalent Employees	*n/a*	*700*	*1,399*	*700*	*668*
Combined Total Employees	*1,197*	*1,916*	*3,831*	*2,815*	*1,884*

Note: Assumptions for employment projections are provided in Table 2-4.

Source: Prepared by Ascent Environmental in 2018

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As shown in Table 3.11-2, existing cultivation sites assumed under Alternative 1 have approximately 683 full-time-equivalent employees and 1,197 seasonal employees. This alternative does not allow for additional cultivation or new noncultivation uses that could generate new employees that could require housing.

Therefore, implementation of Alternative 1 would not directly result in a substantial population growth from employment in the County. **No impact** would occur under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Table 3.11-2, this alternative is assumed to result in a total of 715 full-time-equivalent employees for cannabis sites (existing and new cultivation sites) and 700 full-time-equivalent employees for noncultivation sites. Alternative 2 also is also assumed to generate 1,216 seasonal employees that would assist during harvest activities.

The General Plan EIR estimated that buildout of the General Plan by 2030 would result in a population in the unincorporated County of 64,700, approximately 22,061 residential units, and approximately 53,154 jobs. As described in Chapter 4.0, "Cumulative Impacts and Overconcentration" the Yolo County Board of Supervisors made significant amendments in 2017 to remove much of this planned growth. The population of unincorporated Yolo County in January 2019 was approximately 31,200. New cultivation and noncultivation sites under Alternative 2 would be spread countywide (see Exhibit 2-5). These employees can be assumed to come from the surrounding areas with some employees needing to move into the area, which would result in population growth in the County. Because the overall number of new residents would be within the expected buildout population of the General Plan and because they would be spread out in the unincorporated areas, population growth under Alternative 2 would not be substantial. As shown in Table 3.11-1, Yolo, Sacramento, and Solano Counties combined have approximately 63,000 existing unoccupied dwelling units. Housing vacancy rates have increased in Yolo County from 4.3 percent in 2017 to 5.2 percent in 2019 (Yolo County, 2019a and 2019b). This alternative assumes that new employees would be able to seek housing in the region without necessitating the construction of housing in the County. Cannabis -related employment may be accommodated by existing County employees that already work for other agricultural uses (permanent and seasonal employees). Further, several of the local jurisdictions in the region have reasonably foreseeable residential development communities (e.g., West Sacramento has the Yarbrough, Liberty Specific Plan, and River Park developments that would provide up to 7,200 new residential units combined and are in some stage of the entitlement process; City of Davis and University of California at Davis approved housing project and plans [i.e., UC Davis Long Range Development Plan]; and Woodland has approved the Country Oaks Subdivision, and the previously-approved Spring Lakes Specific Plan is being built out). Other jurisdictions, such as the City of Winters, are incorporating suggestions from the SACOG Housing Policy Tool Kit to address the availability of housing, such as the allowance for pre-manufactured buildings and accessory dwelling units in the zoning code and the adoption of regulations for support of farmworker housing and transitional housing. Thus, adequate housing opportunities in the region are considered to be available to accommodate the employment generated under this alternative. Additionally, the overall number of employees would be within the expected buildout conditions of the General Plan.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Table 3.11-2, this alternative is assumed to result in a total of 1,420 full-time-equivalent employees for cannabis sites (existing and new cultivation sites) and 1,399 full-time-equivalent employees for noncultivation sites. Alternative 3 is also assumed to generate 2,432 seasonal employees that would assist during harvest activities.

As shown in Table 3.11-1, Yolo, Sacramento, and Solano Counties combined have approximately 63,000 unoccupied dwelling units. This alternative assumes that new employees would be able to seek housing in the region without necessitating the construction of housing in the County. As described under Alternative 2, several of the local jurisdictions in the region have reasonably foreseeable residential development

communities (e.g., West Sacramento has the Yarbrough, Liberty Specific Plan, and River Park developments that would provide up to 7,200 new residential units combined and are in some stage of the entitlement process; City of Davis and University of California at Davis approved housing project and plans [i.e., UC Davis Long Range Development Plan]; and Woodland has approved the Country Oaks Subdivision, and the previously-approved Spring Lakes Specific Plan is being built out), Other jurisdictions, such as the City of Winters, are incorporating suggestions from the SACOG Housing Policy Tool Kit to address the availability of housing. Thus, adequate housing opportunities in the region are considered to be available to accommodate the employment generated under this alternative. Additionally, the overall number of employees would be within the expected buildout conditions of the General Plan.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Table 3.11-2, this alternative is assumed to result in a total of 2,115 full-time-equivalent employees for cannabis sites (existing and new cultivation sites) and 700 full-time-equivalent employees for noncultivation sites.

As shown in Table 3.11-1, Yolo, Sacramento, and Solano Counties combined have approximately 63,000 unoccupied dwelling units. This alternative assumes that new employees would be able to seek housing in the region without necessitating the construction of housing in the County. As described under Alternative 2, several of the local jurisdictions in the region have reasonably foreseeable residential development communities (e.g., West Sacramento has the Yarbrough, Liberty Specific Plan, and River Park developments that would provide up to 7,200 new residential units combined and are in some stage of the entitlement process; City of Davis and University of California at Davis approved housing project and plans [i.e., UC Davis Long Range Development Plan]; and Woodland has approved the Country Oaks Subdivision, and the previously-approved Spring Lakes Specific Plan is being built out), Other jurisdictions, such as the City of Winters, are incorporating suggestions from the SACOG Housing Policy Tool Kit to address the availability of housing. Thus, adequate housing opportunities in the region are considered to be available to accommodate the employment generated under this alternative. Additionally, the overall number of employees would be within the expected buildout conditions of the General Plan.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Table 3.11-2, this alternative is assumed to result in a total of 715 full-time-equivalent employees for cannabis sites (existing and new cultivation sites) and 668 full-time-equivalent employees for noncultivation sites. Alternative 5 is also assumed to generate 1,216 seasonal employees that would assist during harvest activities.

As shown in Table 3.11-1, Yolo, Sacramento, and Solano Counties combined have approximately 63,000 unoccupied dwelling units. This alternative assumes that new employees would be able to seek housing in the region without necessitating the construction of housing in the County. As described under Alternative 2, several of the local jurisdictions in the region have reasonably foreseeable residential development communities (e.g., West Sacramento has the Yarbrough, Liberty Specific Plan, and River Park developments that would provide up to 7,200 new residential units combined and are in some stage of the entitlement process; City of Davis and University of California at Davis approved housing project and plans [i.e., UC Davis Long Range Development Plan]; and Woodland has approved the Country Oaks Subdivision, and the previously-approved Spring Lakes Specific Plan is being built out), Other jurisdictions, such as the City of Winters, are incorporating suggestions from the SACOG Housing Policy Tool Kit to address the availability of housing. Thus, adequate housing opportunities in the region are considered to be available to accommodate the employment generated under this alternative. Additionally, the overall number of employees would be within the expected buildout conditions of the General Plan.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

3.12 NOISE

This section includes a description of acoustic fundamentals, existing ambient noise conditions in Yolo County, and an analysis of potential short- and long-term noise impacts associated with activities that would likely result from implementation of the CLUO including issuance of subsequent Cannabis Use Permits issued pursuant to the adopted CLUO.

Comment letters, in response to the NOP, addressed issues pertaining to noise associated with the short-term construction and vibration, as well as long-term operation of commercial cannabis facilities, including the use of generators and increases in traffic noise. Other comments suggested that licensing policies should be designed to minimize noise impacts. There were also concerns that a concentration of cannabis uses could create localized noise impacts. Comments related to noise were received from the California Department of Food and Agriculture and from residents. Noise comments are considered in the analysis below as well as Chapter 4, "Cumulative Impacts and Overconcentration." The comments received on the NOP are provided in Appendix A.

CONCEPTS RELATED TO EVALUATION OF NOISE

Acoustic Fundamentals

Prior to discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Noise is defined as loud, unexpected, annoying, or unwanted sound. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously

would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels [dBA]) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are A-weighted decibels. Table 3.12-1 describes typical A-weighted noise levels for various noise sources.

Table 3.12-1 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Note: dB = decibels.
Source: Caltrans 2013a: Table 2-5

Human Response to Changes in Noise Levels

As discussed above, the doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013a:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly

noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013a:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006:7-3; Caltrans 2013a:6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006:7-4; Caltrans 2013b:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006:7-8; Caltrans 2013b:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.12-2 summarizes the general human response to different ground vibration-velocity levels.

Table 3.12-2 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Note: VdB = vibration decibels referenced to 1 µ inch/second and based on the root-mean-square velocity amplitude.
Source: FTA 2006:7-8

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following noise descriptors are used throughout this section:

- **Equivalent Continuous Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that actually occurs during the same period (Caltrans 2013a:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period.

- **Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013a:2-48; FTA 2006:2-16).

- **Day-Night Level (L_{dn}):** L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013a:2-48; FTA 2006:2-22).

- **Community Noise Equivalent Level (CNEL):** CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013a:2-48).

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line

of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013a:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

3.12.1 Environmental Setting

PREDOMINANT NOISE SOURCES

The dominant sources of noise in the County are mobile, related to automobile and truck traffic, aircraft and train transportation. Stationary sources in the County include farming activities, mining activities, commercial and industrial facilities, and construction. Noise levels along County roads that provide access to the more sparsely populated areas are generally low because these roads do not carry high volumes of traffic.

To characterize existing noise levels, traffic noise levels on 119 County roadway segments were modeled using calculation methods consistent with Federal Highway Administration (FHWA) Traffic Noise Model, Version 2.5 (FHWA 2004) and using average daily traffic volumes provided in the traffic analysis conducted by KD Anderson & Associates, Inc (2019) (see Appendix G). Based on the modeling conducted, traffic noise levels within The County range from 41.9 dBA L_{dn} to 79.3 dBA L_{dn} Appendix E summarizes the modeled traffic noise levels at 100 feet from the centerline of each area roadway segments and lists distances from each roadway centerline to the 70, 65, 60, and 55 L_{dn} traffic noise contours.

EXISTING NOISE-SENSITIVE LAND USES

Noise-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because this is where people sleep. Parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels but less likely to result in health effects. Places of worship, and other similar places where low interior noise levels are of great importance, are also considered noise-sensitive. Within The County, all of the aforementioned types of noise-sensitive land uses are present.

3.12.2 Regulatory Setting

FEDERAL

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

STATE

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR 2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many

local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the state Sound Transmissions Control Standards, the state's general plan guidelines recommend interior and exterior CNEL of 45 and 60 dB for residential units, respectively (OPR 2017:378).

LOCAL

Yolo County 2030 Countywide General Plan

The Health and Safety Element of the 2030 Countywide General Plan (General Plan) contains policies and implementation programs regarding noise that are applicable to the project, and are summarized below.

- **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 (see Table 3.12-3 for an interpretation of Figure HS-7).

- **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-7.4:** For proposed new discretionary development, where it is not possible to reduce noise levels in outdoor activity areas to 60 dB CNEL or less using practical application of the best-available noise reduction measures, greater exterior noise levels may be allowed, provided that all available reasonable and feasible exterior noise level reduction measures have been implemented.

- **Policy HS-7.5:** Minimize the impact of noise from transportation sources including roads, rail lines, and airports on nearby sensitive land uses.

    - **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. Home occupation uses are excluded. (Policy HS-7.1, Policy HS-7.4).

    - **Action HS-A63:** Review proposed development projects for compatibility with surrounding and planned uses in accordance with the Noise Compatibility Guidelines and the County's Right to Farm Ordinance; however these guidelines shall not be applied to outdoor activity areas nor shall they be used to prohibit or preclude otherwise allowed density and intensity of development. (Policy HS-7, Policy HS-7.4).

Table 3.12-3 Land Use/Noise Compatibility Standards

Land Use Category	Land Use Interpretation for L_{dn} Value			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential-Single Family, Duplex, Mobile Homes	Under 60	55-70	70-75	Above 75
Residential-Multiple Family	Under 65	60-70	70-75	Above 75
Transient Lodging -Motels, Hotels	Under 65	60-70	70-80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	Under 70	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters	N/A	50-70	N/A	Above 65
Sports Arenas, Outdoor Spectator Sports	N/A	50-75	N/A	Above 70
Playgrounds, Neighborhood Parks	Under 70	67-75	67-75	Above 72
Golf Courses, Riding Stables, Water Rec., Cemeteries	Under 75	70-80	70-80	Above 80
Office Buildings, Business Commercial and Professional	Under 70	75-85	75-85	N/A
Industrial, Manufacturing, Utilities, Agriculture	Under 75	75-85	75-85	N/A

Notes: N/A = not applicable.

[1] Due to exterior sources.

Source: Yolo County 2009, Figure HS-7

Yolo County Code

Noise in Yolo County is addressed within the regulations for specific activities (e.g., Title 10 of the Yolo County Code provides noise regulations for mining within the Cache Creek Area Plan). Section 10-3.411 Noise establishes the following noise standards for excavation activities within the Cache Creek Area Plan:

- Noise levels shall not exceed an 80 dBA L_{eq} measured at the outermost boundaries of the parcel being excavated. However, noise levels may not exceed 60 dBA L_{eq} at any nearby residences or other noise-sensitive land uses, unless emergency conditions require otherwise as determined by the Director.

3.12.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The environmental analysis in this EIR is structured to ensure analysis of cannabis activities over a range of assumed locations throughout the County for Alternatives 1, 2, 3, 4, and 5 (see Exhibits 2-4 through 2-8). While precise site impacts cannot be determined without specific project and property information, the analysis does assess the potential for impacts under various scenarios that are likely to represent actual conditions using the construction and operational assumptions for the five alternatives provided in Appendix D. Further, the analysis provides a conservative analysis of noise-related impacts that could occur from construction and operation of new cannabis uses and relocation of existing cannabis cultivation sites consistent requirements of the CLUO as compared to the noise standards of the General Plan. Thus, attention is given to the limitations and restrictions imposed by the CLUO regarding the types, location, and intensity of noise-generating activity.

Impacts were determined based on methods and reference noise levels from the Federal Transit Administration's Guide on Transit Noise and Vibration Impact Assessment (FTA 2006) and FHWA's Roadway Construction Noise Model User's Guide (FHWA 2006). Reference levels are noise levels for specific equipment or activity types that are documented and the use of them is common practice in the field of acoustics.

Project-generated long-term operational noise would include stationary source such as generators and refrigerated shipping containers and increases in traffic noise. Stationary sources were evaluated using reference noise levels and attenuation calculations and compared to thresholds of significance. The assessment of long-term operational noise impacts from project-generated increases in traffic was conducted using modeling based on the Caltrans traffic noise analysis protocol and the technical noise supplement (Caltrans 2013a), as well as project-specific traffic data (Appendix G). To assess this impact, traffic noise levels under cumulative no project and cumulative plus project conditions for affected roadway segments were modeled to determine the worst-case condition. The modeling conducted does not account for any natural or human-made shielding (e.g., the presence of vegetation, berms, walls, or buildings) and, consequently, represents worst-case noise levels.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to noise if it would:

- generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the General Plan, or applicable standards of other agencies; specific thresholds for temporary (construction) and permanent (operational) noise increases are as follows:

    - **construction noise**: result in a substantial temporary increase in ambient noise levels in the project vicinity. The Yolo County Code does not contain any noise standards or noise-exemption time periods related to construction activity.

    - **operational stationary noise:** result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of the General Plan industrial, manufacturing, utilities, agriculture land use compatibility standards (General Plan Policy HS-7.1) of 75 dBA Ldn.

    - **operational traffic noise**: result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of the General Plan industrial, manufacturing, utilities, agriculture land use compatibility standards (General Plan Policy HS-7.1) of 75 dBA L_{dn}; for roadways that currently exceed applicable standards.

These noise thresholds also address the Mandatory Findings of Significance under State CEQA Guidelines Section 15065(a)(4) on whether the environmental effects of the project will cause adverse effect on human beings, either directly or indirectly. As described in Section 3.0, "Approach to the Environmental Analysis," no significant impacts related to the creation of noise-sensitive land uses, airport noise, or vibration impacts would occur from implementation of the CLUO. Therefore, this impact issue area is not further evaluated.

IMPACT ANALYSIS

Impact NOI-1: Create Excessive Noise Levels from Construction Activities

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in new cannabis operations that would result in temporary noise increases associated with construction of new buildings, ancillary structures, and minor earth movement/excavation. This impact would be **significant** for all the alternatives.

Construction of new cannabis uses (e.g., buildings, infrastructure, and land clearing) may involve the use of off-road construction equipment for grubbing and removal of existing vegetation, breaking ground, initial plowing, terracing, and/or grading to establish a gravel pad or foundation and lifting supplies and building materials. These construction activities could generate temporary noise levels that could disturb people if they were to occur during the sensitive times of the day (i.e., 7:00 a.m. to 6:00 p.m.). The General Plan EIR identified that planned growth would result in significant and unavoidable construction noise impacts (Yolo County 2009).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be small in size and an ancillary use to the residential parcel maintained by the residence, no significant construction noise is expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to compliance with zoning standards of the CLUO but no expansion of cannabis cultivation uses would occur.

Using published reference noise levels for these equipment types, a dozer generates noise levels of 85 dBA L_{max} and 81 dBA L_{eq} at a distance of 50 feet and a grader generates noise levels of 80 dBA L_{eq} and 76 dBA L_{eq} at 50 feet (FHWA 2006:3). Combining these noise levels and assuming attenuation rates from distance alone, at a distance of 75 feet, consistent with buffer distance under this alternative for off-site residences, construction from relocation of existing outdoor cultivation sites could result in noise levels of 83 dBA L_{max} and 79 dBA L_{eq}. Construction activities are typically exempt from noise standards provided they occur during the less sensitive times of the day. However, Yolo County has not adopted daytime construction noise exemptions. Thus, considering that the type and duration of individual construction activities are unknown for individual sites at this time, and no daytime construction exemption exists, construction noise could result in a substantial temporary increase in noise at existing sensitive receptors. This impact would be **significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cannabis (cultivation and noncultivation) uses (see Table 2-4). Alternative 2 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer requirements in the CLUO.

Generally, the extent of construction activity for new cannabis sites would vary depending on the location and existing site conditions (e.g., there are existing buildings on the site that can be used to support the cannabis use). As identified in Appendix D, cannabis site construction activities may involve the use of off-road construction equipment for grubbing and removal of existing vegetation, breaking ground, initial plowing, terracing, and/or grading to establish a gravel pad or foundation and lifting supplies and building materials. It is assumed that up to two pieces of heavy off-road equipment would be used at a time (e.g. loader, grader, scraper, dozer, or something with a comparable engine size and power rating). Using published reference noise levels for these equipment types, a dozer generates noise levels of 85 dBA L_{max} and 81 dBA L_{eq} at a distance of 50 feet and a grader generates noise levels of 80 dBA L_{eq} and 76 dBA L_{eq} at 50 feet (FHWA 2006:3). Combining these noise levels and assuming attenuation rates from distance alone, at a distance of 1,000 feet, consistent with buffer distance requirements for outdoor cannabis sites under this alternative, construction for new cannabis sites could result in noise levels of 60 dBA L_{max} and 56 dBA L_{eq}. At this distance, construction noise would not likely disturb existing sensitive land uses. However, there are no buffer requirements for cannabis uses that would be contained within a building. Further, Yolo County has not adopted daytime construction noise exemptions and considering that the type and duration of individual construction activities are unknown for individual sites at this time, and no daytime construction

exemption exists, construction noise could result in a substantial temporary increase in noise at existing sensitive receptors. This impact would be **significant** for Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes 186 new cannabis uses would be constructed and generally spread throughout the County though 40 new cannabis uses are assumed to be sited along the SR 16 corridor west of the City of Woodland. This alternative is also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning requirements under the CLUO.

Additional cultivation sites and new noncultivation sites would result in short-term construction involving equipment such as graders and dozers for earth movement and structure construction. It is anticipated that up to two pieces of heavy off-road equipment would be used at a time (e.g. loader, grader, scraper, dozer, or something with a comparable engine size and power rating). Using published reference noise levels for these equipment types, a dozer generates noise levels of 85 dBA L_{max} and 81 dBA L_{eq} at a distance of 50 feet and a grader generates noise levels of 80 dBA L_{eq} and 76 dBA L_{eq} at 50 feet (FHWA 2006:3). Combining these noise levels and assuming attenuation rates from distance alone, at a distance of 75 feet, consistent with buffer distance requirements for outdoor cannabis sites under this alternative, construction could result in noise levels of 83 dBA L_{max} and 79 dBA L_{eq}. However, Yolo County has not adopted daytime construction noise exemptions. Thus, considering that the type and duration of individual construction activities are unknown for individual sites at this time, and no daytime construction exemption exists, construction noise could result in a substantial temporary increase in noise at existing sensitive receptors. This impact would be **significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Exhibit 2-7 identifies the assumed distribution of new cannabis uses. Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses.

New cannabis sites constructed under this alternative could require up to two pieces of heavy off-road equipment used at a time (e.g. loader, grader, scraper, dozer, or something with a comparable engine size and power rating). Using published reference noise levels for these equipment types, a dozer generates noise levels of 85 dBA L_{max} and 81 dBA L_{eq} at a distance of 50 feet and a grader generates noise levels of 80 dBA L_{eq} and 76 dBA L_{eq} at 50 feet (FHWA 2006:3). No buffer requirements are associated with this alternative, and therefore, it was assumed that construction noise could occur as close as 50 feet to nearby existing development. Combining noise from these pieces of equipment could result in noise levels of 86 dBA L_{max} and 82 dBA L_{eq} at a distance of 50 feet. Yolo County has not adopted daytime construction noise exemptions. Thus, considering that the type and duration of individual construction activities are unknown for individual sites at this time, and no daytime construction exemption exists, construction noise could result in a substantial temporary increase in noise at existing sensitive receptors. This impact would be **significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County that consists of 52 cultivation and noncultivation uses (see Table 2-4). Alternative 5 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and 1,000-foot buffer requirements between outdoor cannabis uses and defined sensitive receptors.

It is anticipated that up to two pieces of heavy off-road equipment would be used at a time (e.g. loader, grader, scraper, dozer, or something with a comparable engine size and power rating). Using published reference noise levels for these equipment types, a dozer generates noise levels of 85 dBA L_{max} and 81 dBA L_{eq} at a distance of 50 feet and a grader generates noise levels of 80 dBA L_{eq} and 76 dBA L_{eq} at 50 feet (FHWA 2006:3). Combining these noise levels and assuming attenuation rates from distance alone, at a

distance of 1,000 feet, consistent with buffer distance requirements for outdoor cannabis sites under this alternative, construction could result in noise levels of 60 dBA L_{max} and 56 dBA L_{eq}.

At this distance, construction noise would not likely disturb existing sensitive land uses. However, Yolo County has not adopted daytime construction noise exemptions and considering that the type and duration of individual construction activities are unknown for individual sites at this time, and no daytime construction exemption exists, construction noise could result in a substantial temporary increase in noise at existing sensitive receptors. This impact would be **significant** for Alternative 5.

Mitigation Measures

Mitigation Measure NOI-1: Implement Construction-Noise Reduction Measures (Alternatives 1, 2, 3, 4, and 5)

The following new performance standards shall be included under Section 8-2.1408 of the CLUO:

- 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 off-site residential structures. Achieving the noise standards may involve setbacks, the use of quieter equipment adjacent to residences, or other appropriate measures.

Significance after Mitigation

Implementation of Mitigation Measure NOI-1 would reduce levels of nighttime construction noise exposure at residential receptors by ensuring construction would not occur during the more noise-sensitive nighttime hours. Limiting construction to the less sensitive times of the day (i.e., 7:00 a.m. to 6:00 p.m.) would ensure that people are not disrupted during sleep. Further, people are generally not home or as sensitive to construction noise during the daytime hours when various other noise is present, and therefore, would not be exposed to a substantial temporary increase in noise. Construction noise impacts under all five alternatives would not result in any new or greater construction noise impacts than were disclosed in the General Plan EIR (Yolo County 2009). This impact would be reduced to **less than significant**.

Impact NOI-2: Create Excessive Operational Non-Transportation Noise

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in new cannabis operations that could result in long-term increases in noise from the use of electric trimmers, generators, refrigerated storage containers, greenhouse fans, and utility vehicles. Compliance with CLUO noise requirements would ensure that noise generated is consistent with the General Plan noise compatibility standards. This impact would be **less than significant** for all the alternatives.

The major stationary noise sources from cannabis uses consist of maintenance and harvest of cannabis at outdoor cultivation sites. Mixed-light and indoor cultivation is operated within buildings that significantly attenuate exterior noise levels. Noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses are also operated within buildings that mitigate stationary noise

sources. Cannabis uses may require outdoor generators or refrigerated storage units to store fresh frozen cannabis after harvest. These potential noise sources are discussed below for each alternative.

Section 8-2.1408(BB) of the CLUO requires compliance with General Plan noise standards:

- Permittees shall control interior and exterior noise in compliance with the Noise chapter of the Health and Safety Element of the County General Plan including Figure HS-7, Noise Compatibility Guidelines, and Policy HS-7.1 and HS-7.4.

CLUO Sections 8-2.1408(F) and 8-2.1408(OO) also require buildings and site design shall comply with all applicable codes, standards, regulations, and guidelines, and shall demonstrate consideration of noise mitigation.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel maintained by the residence and its minimal size (100 square feet of area), no significant operational noise is expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Noise sources associated with the operation of existing and eligible cultivation sites could include the use of off-road utility vehicles, generators, trimming tools, greenhouse fans, and refrigerated storage units with externally-mounted air conditioning units.

A reference noise level for a mechanized trimmer is 81 dB L_{eq} at a distance of 3 feet and for a window air condition unit, 61 dBA at 10 feet (Berger et al. 2010). A reference noise level for a generator is 64 dBA Leq at 100 feet (FHWA 2006). Based on these reference noise levels, a generator would result in the highest noise levels from operational activities. Thus, a generator was used for the basis of this analysis. Conservatively assuming 24-hour operation of a generator and accounting for the 75-foot buffer requirement between outdoor cultivation sites and existing off-site residence, the calculated L_{dn} from a generator would be 73.6 dBA, below the General Plan land use compatibility standards for industrial, manufacturing, utilities, agriculture (General Plan Figure HS-7) and within the requirements of CLUO Section 8-2.1408(BB). Considering that a generator would be the loudest operational noise source and it would not exceed applicable County standards, noise from other sources (e.g., trimmers, storage units) would also not exceed County standards. This alternative would be subject to the CLUO noise standards and would be required to demonstrate compliance as part of building and site design (CLUO Sections 8-2.1408[F] and 8-2.1408[OO]). Compliance may consist of placement of noise barriers around generators and externally-mounted air conditioning units. This impact would be **less than significant** for Alternative 1.

Alternative 2: All License Types with Moderate Limits

New mixed-light cultivation, indoor cultivation, and noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses) assumed under this alternative would be contained within buildings that would attenuate noise levels. Exterior noise sources associated with the operation of cannabis uses could include the use of off-road utility vehicles, generators, externally mounted air condition units on storage containers, greenhouse fans, and trimming tools. As discussed above, a generator would result in the highest noise levels from operational activities. Thus, a generator was used for the basis of this analysis. Therefore, assuming 24-hour operation of a generator and accounting for the 1,000-foot buffer requirement between outdoor cannabis sites and CLUO defined sensitive receptors, the calculated L_{dn} from a generator would be 44.4 dBA, within the requirements of CLUO Section 8-2.1408(BB). It should be noted that this analysis focuses on noise levels associated with sources located outdoors. Thus, considering that estimated noise levels would not exceed County standards, any noise sources located within enclosed buildings would lower than estimated noise levels discussed above, and also would be below applicable standards. The

CLUO would require all cannabis uses comply with General Plan noise standards and demonstrate compliance in building and site design (Sections 8-2.1408[F], 8-2.1408[BB], and 8-2.1408[NN]). Compliance may consist of placement of noise barriers around generators and externally-mounted air conditioning units. This impact would be **less than significant** for Alternative 2.

Alternative 3: All License Types with High Limits

As addressed in Alternative 2, new mixed-light cultivation, indoor cultivation, and noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses) would be contained within buildings that would attenuate noise levels. Exterior noise sources associated with the operation of cannabis uses could include the use of off-road utility vehicles, generators, externally mounted air condition units on storage containers, greenhouse fans, and trimming tools. As discussed above, a generator would result in the highest noise levels from operational activities. Thus, a generator was used for the basis of this analysis. Assuming 24-hour operation of a generator and accounting for the 75-foot buffer requirement between outdoor cannabis sites and CLUO defined sensitive receptors, the calculated L_{dn} from a generator would be 73.6 dBA, below the land use compatibility standards for industrial, manufacturing, utilities, agriculture. It should be noted that this analysis focusses on noise levels associated with sources located outdoors and within the requirements of CLUO Section 8-2.1408(BB). Thus, considering that estimated noise levels would not exceed County standards, any noise sources located within enclosed buildings would lower than estimated noise levels discussed above, and also would be below applicable standards. The CLUO would require all cannabis uses comply with General Plan noise standards and demonstrate compliance in building and site design (Sections 8-2.1408[F], 8-2.1408[BB], and 8-2.1408[NN]). Compliance may consist of placement of noise barriers around generators and externally-mounted air conditioning units. This impact would be **less than significant** for Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 would restrict cannabis cultivation to mixed-light and indoor operations within greenhouse buildings that would include the existing cultivation sites (conversion of 75 existing outdoor cultivation sites indoor or mixed-light [greenhouse] cultivation).

As noted above, new mixed-light cultivation, indoor cultivation, and noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses) would be contained within buildings that would attenuate noise levels. Exterior noise sources associated with the operation of cannabis uses could include the use of off-road utility vehicles, generators, greenhouse fans, and externally mounted air condition units on storage containers. A reference noise level for a generator is 64 dBA Leq at 100 feet and could result in exterior noise levels in excess of General Plan standards in Figure HS-7 for industrial, manufacturing, utilities, and agriculture. However, the CLUO would require all cannabis uses comply with General Plan noise standards and demonstrate compliance in building and site design (Sections 8-2.1408[F], 8-2.1408[BB], and 8-2.1408[NN]). Compliance may consist of placement of noise barriers around generators and externally-mounted air conditioning units. This impact would be **less than significant** for Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As addressed in Alternative 2, new mixed-light cultivation, indoor cultivation, and noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses) would be contained within buildings that would attenuate noise levels. Exterior noise sources associated with the operation of cannabis uses could include the use of off-road utility vehicles, generators, externally mounted air condition units on storage containers, greenhouse fans, and trimming tools. As discussed above, a generator would result in the highest noise levels from operational activities. Thus, a generator was used for the basis of this analysis. Assuming 24-hour operation of a generator and accounting for the 1,000-foot buffer requirement between cannabis sites and CLUO defined sensitive receptors, the calculated L_{dn} from a generator would be 44.4 dBA, within the requirements of CLUO Section 8-2.1408(BB). It should be noted that this analysis focuses on noise levels associated with sources located outdoors. Thus, considering that estimated noise levels would not exceed County standards, any noise sources located within enclosed buildings would lower than estimated noise levels discussed above, and also would be below applicable standards. The CLUO would require all cannabis uses comply with General Plan noise standards and demonstrate compliance in

building and site design (Sections 8-2.1408[F], 8-2.1408[BB], and 8-2.1408[NN]). Compliance may consist of placement of noise barriers around generators and externally-mounted air conditioning units. This impact would be **less than significant** for Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact NOI-3: Create Excessive Traffic Noise

Adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in traffic noise increases. No increases in cannabis operations would occur under Alternative 1, and therefore, there would be no long-term increases in traffic noise and **no impact** would occur. All other alternatives would result in varying degrees of traffic and associated traffic noise increases that would not exceed General Plan standards. No roadway currently below 75 dBA L_{dn} would experience traffic noise increases that would exceed this standard. The impact from operational traffic noise would be **less than significant** for Alternatives 2, 3, 4, and 5.

Traffic generated by cannabis uses have the potential to generate increases in existing and future traffic noise levels along roadways and state highways in the County. Appendix F provides a detailed traffic noise analysis for each of the alternatives.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. No additional traffic would be generated.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 assumes the continued operation of 78 existing and eligible cannabis cultivation sites. No new commercial cultivation sites would be developed. Therefore, there would be no increase in operation-related traffic noise over existing conditions and **no impact** from operational noise under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Traffic noise modeling was conducted for cumulative no project conditions and for cumulative plus Alternative 2 assumed cannabis uses (Appendix F). Based on the modeling conducted, the greatest increase in noise would be 1.3 dB, occurring on State Route 16 from Arbuckle Road to County Road 78. An increase in noise of 1.3 dB would not be audible to the human ear and would not exceed General Plan noise standard. This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Traffic noise modeling was conducted for cumulative no project conditions and for cumulative plus Alternative 3 assumed cannabis uses (Appendix F). Based on the modeling conducted, the greatest increase in noise would be 4.1 dB, occurring on County Road 6 from County Road 86 to Dunnigan. Noise increases of 3 dB are considered just barely perceptible and noise increases of 6 dB are considered clearly noticeable (Egan 2007). Thus, an increase of approximately 4 dB could potentially be noticeable. However, there are no existing sensitive land uses located along this road segment. Further, cumulative plus project noise levels on this road would be well below the General Plan 75-dBA L_{dn} noise standard (i.e., 51 dBA L_{dn}), used as a threshold of significance for this impact. Therefore, Alternative 3 would not result in an increase in noise that could affect any existing sensitive land receptor or in an increase in noise that would exceed applicable thresholds of significance. Therefore, the impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Traffic noise modeling was conducted for cumulative no project conditions and for cumulative plus Alternative 4 assumed cannabis uses (Appendix F). Based on the modeling conducted, the greatest increase in noise would be 1.5 dB, occurring on County Road 12A. An increase in noise of 1.5 dB would not be audible to the human ear. In addition, cumulative plus project noise levels on this road would be below the General Plan 75-dBA L_{dn} noise standard (i.e., 43.5 dBA L_{dn}), used as a threshold of significance for this impact. Therefore, Alternative 4 would not result in an audible increase in noise or in an increase in noise that would exceed applicable thresholds of significance. Therefore, the impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Traffic noise modeling was conducted for cumulative no project conditions and for cumulative plus Alternative 5 assumed cannabis uses (Appendix F). Based on the modeling conducted, the greatest increase in noise would be 1.3 dB, occurring on County Road 12A. An increase in noise of 1.3 dB would not be audible to the human ear. In addition, cumulative plus project noise levels on this road would be below the General Plan 75-dBA L_{dn} noise standard (i.e., 43.3 dBA L_{dn}), used as a threshold of significance for this impact. Therefore, Alternative 5 would not result in an audible increase in noise or in an increase in noise that would exceed applicable thresholds of significance. Therefore, the impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

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3.13 PUBLIC SERVICES

This section provides an overview of fire protection, emergency medical, law enforcement, park/recreation, and other governmental services in Yolo County and a discussion of how adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO would affect these services.

Several public services-related comments were received in response to the Notice of Preparation (NOP). These comments include public comments mentioning fire districts' ability to properly respond to a potential increase in fire risks associated with manufacturing processes. The Yocha Dehe Wintun Nation commented about whether the CLUO would positively or negatively affect illegal cannabis and the ability of police services to prevent robberies or other crimes associated with legal and illegal grows along with concerns as to how cannabis activities may affect recreation in the area. Residents of the County expressed concerns about District 5 not having a residential sheriff and the Madison Fire Department not being equipped to handle hazardous materials. These residents also expressed concern about neighbors not being safe from crime associated with cannabis operations. The Yolo County Farm Bureau sent in comments about potential crime related to cannabis and recommends the Sheriff's office review and approve cannabis operation security plans prior to approval. The environmental effects of these comments on public service are considered below. The reader is referred to Appendix A for comments on the NOP.

3.13.1 Environmental Setting

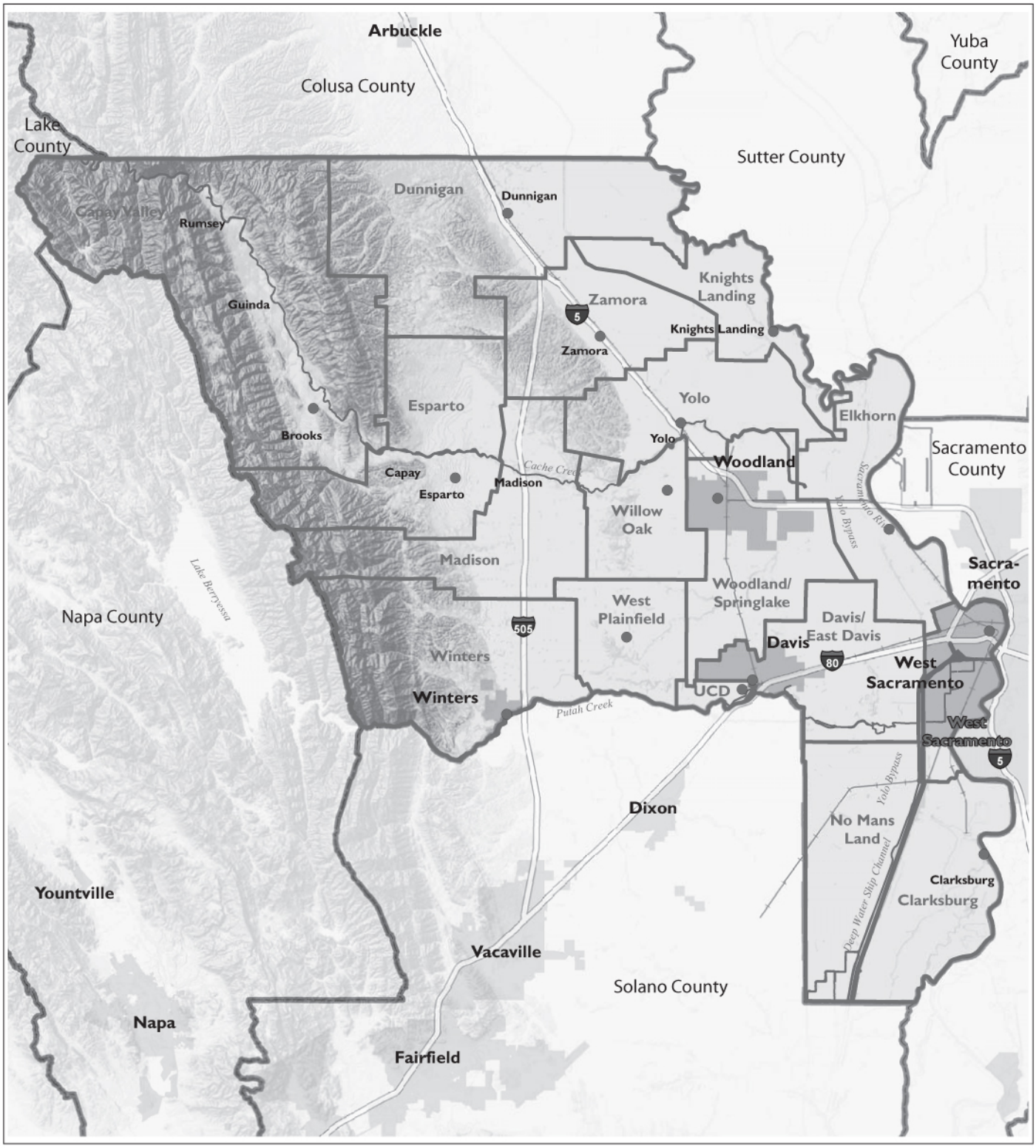
FIRE PROTECTION

CAL FIRE

Several state and local entities provide fire protection and emergency medical services (EMS) to Yolo County and its cities (Exhibit 3.13-1). At the state level, the California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire protection in State Responsibility Areas (SRAs), along with providing some fire protection in Local Responsibility Areas (LRAs). SRAs are areas in the state where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. CAL FIRE provides a basic level of wildland fire prevention and protection services in SRAs. LRAs are areas where local agencies (cities, counties, community service districts, and fire protection districts [FPDs]) provide fire protection services. CAL FIRE is required by law to respond to and abate uncontrolled fires that threaten to destroy life, property, or natural resources outside of LRAs. The Yolo County SRA falls under the North Division of CAL FIRE's Sonoma-Lake-Napa Unit. CAL FIRE has staff and equipment available in Yolo County during fire season (typically May to October). Battalion 1419 operates three single-engine fire stations near Leesville, Wilbur Springs, and Brooks.

County Fire Protection Districts

There are 15 FPDs in Yolo County that provide fire protection and EMS within the unincorporated areas of the County. The FPDs provide either direct or indirect services. A direct-service provider provides fire and emergency medical services using volunteer or hired staff. An indirect-service provider contracts with a municipal FPD to provide these services (Yolo County 2019a). Table 3.13-1 identifies the FPDs in Yolo County, the FPDs that provide direct or indirect services, and the number of personnel with each FPD. Personnel information is not included for the FPDs that provide indirect services, since those services are provided via contract with another jurisdiction.



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Source: Image prepared and provided by LSA Associates

Exhibit 3.13-1 **Fire Protection Districts**

Table 3.13-1 Fire Protection Districts

Fire Protection District	Direct or Indirect (Contract Entity)	Personnel		
		Full Time	Part Time	Volunteer
Capay Valley FPD	Direct	0	0.5	14
Clarksburg FPD	Direct	0	0	25
Dunnigan FPD	Direct	1	0.25	24
East Davis FPD	Indirect (City of Davis)	0	0	0
Elkhorn FPD	Direct	0	0	6
Esparto FPD	Direct	1	0.25	18
Knights Landing FPD	Direct	0	0	13
Madison FPD	Direct	0	0	14
No Man's Land FPD	Indirect (City of Davis)	0	0	0
Springlake FPD	Indirect (Cities of Woodland & Davis)	0	0	0
West Plainfield FPD	Direct	2	0.5	7
Willow Oak FPD	Direct	4	0.25	3
Winters FPD	Indirect (City of Winters)	0	0	0
Yolo FPD	Direct	1	1	19
Zamora FPD	Direct	0	0	13

Source: Yolo County 2019a

All of the 11 FPDs that provide direct fire protection services have automatic aid agreements with one or more of their neighboring fire districts. In addition, for the four indirect-service FPDs, the municipal fire departments with which the FPDs have contracts have automatic aid agreements with neighboring municipal fire departments (LAFCO 2016). Under these agreements, the parties of the agreements are automatically dispatched to assist one another in responding to emergencies within each other's jurisdictions. This type of mutual aid agreement is typically utilized on a day-to-day basis.

Table 3.13-2 identifies the fire jurisdictions with which the FPDs have automatic aid agreements. Since automatic aid agreements are with adjacent fire districts, some agreements are with fire entities outside of Yolo County.

In addition, the Yolo County Fire Chief's Association has a "No Response by Agency" policy that requires the dispatch and notification of the next closest FPD if an associated aid FPD does not respond within 1 minute.

All of the 11 direct-service FPDs and the contracted city fire departments for the four indirect-service FPDs are signatories to the 2007 Yolo County Mutual Aid Agreement. Under this agreement, the fire jurisdictions provide assistance across jurisdictional boundaries, upon request, when an emergency exceeds a jurisdiction's resources.

In 2016, the Yolo Local Agency Formation Commission (LAFCO) adopted the *Municipal Services Review and* Sphere of Influence Study for the 15 FPDs in Yolo County (LAFCO 2016). This report analyzed, among other things, the service capacity and adequacy of the 15 FPDs by evaluating compliance with the National Fire Protection Association (NFPA) Deployment Standard for Volunteer Fire Departments Standard 1720. The NFPA is an internationally recognized organization devoted to eliminating death, injury, property, and economic loss from fire, electrical, and other hazards. This is accomplished through the development of codes and standards designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation around the world.

Table 3.13-2 Automatic Aid Agreement Jurisdictions

Fire Protection District	Automatic Aid Agreement Jurisdictions
Capay Valley	Esparto, Yocha Dehe
Clarksburg	City of West Sacramento, Courtland
Dunnigan	Capay Valley and California Department of Forestry and Fire Protection
East Davis (City of Davis)	City of Davis; University of California, Davis; City of Woodland; City of West Sacramento; City of Dixon
Elkhorn	City of West Sacramento, Woodland
Esparto	Madison, Yocha Dehe
Knights Landing	Yolo, Sutter Basin
Madison	Yocha Dehe, Esparto
No Man's Land (City of Davis)	Davis; University of California, Davis; City of Woodland; City of West Sacramento; City of Dixon
Springlake (Cities of Davis and Woodland)	City of Davis; University of California, Davis; City of Woodland; City of West Sacramento; City of Dixon; and Elkhorn
West Plainfield	City of Davis, City of Winters
Willow Oak	City of Woodland
Winters (City of Winters)	West Plainfield, City of Dixon, City of Vacaville
Yolo	Knights Landing, Zamora, Willow Oak
Zamora	Yolo

Source: LAFCO 2016

NFPA Standard 1720 was utilized in the LAFCO study as the best practice criteria for evaluating fire service deployment in Yolo County (LAFCO 2016). The LAFCO study found that the "response times for all 15 FPDs meet nationally recognized best practice criteria for rural service demand zones of 14 minutes or less with 80 percent or better reliability."

The LAFCO study noted that of the FPDs aggregate inventory of 72 fire apparatus/vehicles, 53 percent are over 15 years of age, 36 percent are over 20 years of age, and 29 percent are over 25 years of age. All of the districts have one or more fire apparatus over 20 years of age. The report recommended that the FPD consider replacing fire apparatus after not more than 25 years of service life.

Table 3.13-3 provides an equipment list for the 15 FPDs and their response times.

Table 3.13-3 Fire Protection District Equipment and Response Times

Fire Protection District	Stations	Equipment	Response Time (minutes)
Capay Valley FPD	3	4 engines, and 2 water tenders	11
Clarksburg FPD	1	3 engines, 1 squad vehicle, and 1 water tender	10
Dunnigan FPD	1	4 engines,1 squad vehicle, 1 water tender,	8
East Davis FPD (served by the City of Davis)	3	3 engines, 1 rescue vehicle, 1 squad vehicle, 2 grass/wildland units, 1 water tender, 2 reserve engines, 3 command vehicles, 2 fire prevention staff vehicles, and 2 antique fire apparatus	N/A**
Elkhorn FPD	1	2 engines, 1 squad vehicle, 1 utility vehicle, and 1 water tender	11
Esparto FPD	1	3 engines, 1 squad vehicle, 1 command vehicle, 2 water tenders, and 1 utility vehicle	4
Knights Landing FPD	1	3 engines, 1 squad vehicle, 1 water tender	10

Table 3.13-3 Fire Protection District Equipment and Response Times

Fire Protection District	Stations	Equipment	Response Time (minutes)
Madison FPD	1	3 engines, 2 water tenders, 1 utility vehicle, and 1 command vehicle	9
No Man's Land FPD (served by the City of Davis)	3	3 engines, 1 rescue vehicle, 1 squad vehicle, 2 grass/wildland units, 1 water tender, 2 reserve engines, 3 command vehicles, 2 fire prevention staff vehicles, and 2 antique fire apparatus	N/A**
Springlake FPD (served by the Cities of Woodland and Davis)	6*	City of Davis: 3 engines, 1 rescue vehicle, 1 squad vehicle, 2 grass/wildland units, 1 water tender, 2 reserve engines, 3 command vehicles, 2 fire prevention staff vehicles, and 2 antique fire apparatus City of Woodland: 3 fire engines and 1 ladder truck	9
West Plainfield FPD	1	4engines and 2 water tenders	8
Willow Oak FPD	2	4 engines, 2 command vehicles, and 2 water tenders	7
Winters FPD (City of Winters)		5 engines, 1 squad vehicle, 3 water tenders, and 2 utility vehicles	7
Yolo FPD	1	3 engines, 1 squad vehicle, 1 water tender, and 1 command vehicle	7
Zamora FPD	1	2 engines, 1 squad vehicle, and 1 water tender	12

Notes:

* The Cities of Davis and Woodland each have three fire stations.

** Response time data were not provided for the LAFCO report. However, LAFCO conducted a response routes analysis from Davis Station #3, the results of which suggests that 80th percentile response times would be well within the recommended 14 minutes or less as recommended by NFPA Standard 1720 for both the East Davis and No Man's Land FPDs.

Sources: Burns 2019, City of Davis 2019, and LAFCO 2016

City of Davis

The Davis Fire Department provides emergency response and fire prevention services to the city of Davis and service to three FPDs (East Davis County District, Springlake, and "No Man's Land"). It has three fire stations and 36 shift personnel, including nine captains and 27 firefighters. The City of Davis and University of California, Davis (UC Davis) have a shared management team for the fire chief, deputy chief, and three division chiefs. In 2018, the DFD responded to 5,447 calls (City of Davis 2019).

City of West Sacramento

The West Sacramento Fire Department (WSFD) provides fire protection services to the city of West Sacramento and the unincorporated area south of the city boundary to Babel Slough Road and across to the old Arcade Station on Jefferson Boulevard. It has five stations with a combined staffing of 17 personnel on duty. The WSFD had an average response time of 4 minutes and 15 seconds in 2016 and strives to remain within a 4- to 6-minute response time window (City of West Sacramento 2016a).

City of Winters

The Winters Fire Department covers 86 square miles that make up the city of Winters and the Winters District. Six career and 50 volunteer personnel provide service from the Winters Fire Station located at 700 Main Street in Winters.

City of Woodland

The Woodland Fire Department provides fire protection services for the city of Woodland and the surrounding unincorporated areas (e.g., North Woodland, East Woodland and Speckles). It has a daily staffing of 13 firefighters per day deployed on three fire engines, and one ladder truck. Three engine companies operate with three fire personnel and one truck company operates with four fire personnel (City of Woodland 2019). There are three fire stations located throughout the city.

UC Davis

The UC Davis Fire Department maintains a station that serves the campus and has shared responsibility with the City of Davis. The department employs 25 full-time personnel, one part-time administrative assistant, 15 student resident firefighters, and two student administrative support staff. Two captains, two engineers, and three firefighters are working per shift (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017).

Yocha Dehe

The Yocha Dehe Fire Department, maintained by the Yocha Dehe Wintun Nation, provides fire protection, rescue, and EMS for the Cache Creek Casino Resort and tribal housing. The department runs one station with 14 firefighter/paramedics, six engineers, six captains, and three battalion chiefs (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017).

Hazardous Materials Emergency Response

If a hazardous materials incident is beyond the capabilities of a fire protection district, the Yolo County Multi-Agency Hazardous Materials Response Team is activated. This team combines the resources of the Yolo County Environmental Health Division, the Cities of Woodland, Davis, and West Sacramento Fire Departments, and UC Davis Fire Department. The County and the fire departments participate in a system of joint hazardous material response and automatic aid throughout Yolo County. The *"Agreement for Hazardous Materials Automatic Aid"* became effective June 27, 1995, and provides for HazMat Team response in all cities and in the unincorporated portion of the County. As identified in the Yolo Operational Area Hazardous Materials Emergency Response Plan, the agreement addresses the responsibilities of team members, resources, funding, training and reimbursement. (Please refer to Section 3.9 Hazards and Hazardous Materials for further information regarding hazardous materials emergency response.)

Fire Response to Existing Cannabis Activities

There were five calls for fire department response at County licensed cannabis sites in 2018. Four were for fire response and one was for emergency medical services. The number and type of responses is not unusual and within the response capabilities of the FPDs (Burns, pers. comm., 2019).

EMERGENCY MEDICAL SERVICES

Emergency medical services in the County are provided by the FPDs and municipal fire departments. If 911 is called, the initial assessment of whether emergency medical assistance is required (vs. other emergency services) is made by the Yolo County 911 Dispatch Center operated by the Yolo Emergency Communications Agency.

LAW ENFORCEMENT

California Highway Patrol

The California Highway Patrol (CHP) provides uniform traffic law enforcement throughout the state. The primary purpose of the CHP is to ensure safe, convenient, and efficient transportation of people and goods on the highway system. There is one CHP office in Yolo County, located in the city of Woodland (CHP 2018).

California State Park Peace Officers

California State Park Peace Officers, or Rangers, carry out law enforcement and visitor service functions in State Parks. State Park officers have full peace officer powers pursuant to Penal Code Section 830.2, and perform a full range of peace officer duties and responsibilities. Duties include patrol, issuing citations, writing reports, physical arrests, conducting investigations, and providing emergency medical aid (CSP 2017). California State Parks in Yolo County include the Woodland Opera House State Historic Park, located in Woodland (CSP 2018).

Yolo County Sheriff's Office

Law enforcement in the unincorporated areas of the County is provided by the Yolo County Sheriff's Office. The Sheriff's Office is responsible for patrolling the County, administering the County jail and work program, providing security to the Yolo County Court system, providing animal services, and serving as the County coroner. Sheriff headquarters is located in Woodland with the capability of serving the County area through the 300 full and part time employees (Yolo County 2019c). The Sheriff's Office has two resident deputies in Clarksburg. In addition, in September 2019, the County Board of Supervisors approved the addition of a resident Sheriff's Office deputy for the Capay Valley, including Esparto and Madison. The Sheriff's Office also provides dedicated 24-hour patrol within Capay Valley. Lastly, he County has two Sheriff's Office detectives dedicated to the County's Cannabis Task Force. The Yolo County 2030 General Plan provides an average response time goal of 12 minutes for the Sheriff's Office in rural areas.

Additionally, each incorporated city in Yolo County has its own police department (discussed below).

Sheriff's Office Response to Existing Cannabis Activities

The Sheriff's Office and Cannabis Task Force have received calls regarding illegal cultivation sites and thefts on licensed cannabis cultivation sites. A summary of the number of illegal cannabis abatements and thefts at licensed cultivation sites in 2018 are listed below.

Table 3.13-4 Cannabis-Related Crime

	Illegal Cannabis Abatements	Theft at Licensed Cultivation Site
2018	12	9

For licensed cannabis sites that experienced a theft in 2018, the licensee was required to submit a plan for a fully functioning security plan that included following requirements:

- Cameras must be fully functional 24 hours a day, 7 days a week, and focused in the direction of cultivation activity and storage locations/vehicles.
- Lighting must be installed in area(s) being captured by video viewpoints to enhance picture clarity, especially in low light or complete darkness.
- Cameras need to be installed out of arm's reach of persons on-site.
- Routine maintenance of the cameras must be conducted and any obstructions interfering with obtaining a clear picture/video cleared.
- Camera recordings must be maintained for a period of not less than 30 days.
- Gates and doors to cultivation activity and storage need to remain locked to prevent unauthorized entry.
- Fence surrounding cultivation activity and storage needs to be fully enclosed, routinely maintained for structural integrity and adequately secured.

Each plan was approved by the Sheriff's Office and Cannabis Task Force prior to implementation. In addition, post installation inspections were conducted by the Sheriff's Office and Cannabis Task Force to confirm the security measures were in place and functioning properly. The security measures are then inspected as part of the monthly routine inspections conducted at the cultivation sites.

The County currently conducts background checks on licensees and property owners. It is anticipated that in the future, the background checks will be expanded to also include employees.

City Police

The City of Davis Police Department is headquartered at 2600 5th Street, Davis and employs 61 sworn officers, 37 civilian support professionals, one canine, and over 60 volunteers. There are four divisions in the department; administration, patrol, investigations, and records & communications (City of Davis 2014).

The City of West Sacramento Police Department is staffed with 74 sworn officers and 23 civilian full-time employees. The department is organizationally divided into three offices: Administration, Support Services, and Field Operations. There is one main police station on Jefferson Boulevard and one service center on Lake Washington Boulevard (City of West Sacramento 2015).

The Winters Police Department provides police protection to the entire city with headquarters located at 702 Main Street. It is staffed with 11 sworn positions, consisting of a chief, three sergeants, two corporals, one detective and four patrol officers(City of Winters 2019).

The City of Woodland Police Department has one station at 1000 Lincoln Avenue with 64 sworn officers and 15 support employees. The department has four divisions: Administration, Operations, Support Services, and Special Operations. The Special Operations Division houses the Investigations and Gang Suppression Units, which include gang suppression, Yolo County Narcotics Enforcement Team, and School Resource Officers (City of Woodland 2017).

UC Davis has its own police department. Patrol operations on the campus is managed by a patrol lieutenant and patrol teams (U.S. Fish and Wildlife Service and Yolo Habitat Conservancy 2017).

County Code Enforcement

The County has a Cannabis Task Force to address licensing and compliance for existing cultivators in the County. The task force, which is located within the Community Services Department, is made up of a program manager, staff supervisor, three enforcement officers, and two sheriff detectives. The task force issues annual cultivation licenses and enforces compliance with the County's cannabis interim ordinance through monthly site inspections and compliance with a track and trace system. The track and trace system records plant inventory at each site and movement through the commercial cannabis supply chain. The task force would be charged with ensuring compliance with the CLUO. Non-compliance with the provisions of the cannabis interim ordinance can lead to the issuance of Notices of Violations, penalties, revocation, and/or denial of licenses.

There is also a code enforcement unit within the Building Inspection Services Division of the Community Services Department. The code enforcement officers are charged with the enforcement of Yolo County Codes as adopted by the Board of Supervisors and the laws of the State of California.

Code Enforcement is a citizen-based program that inspects and investigates complaints from Yolo County citizens or within a mutual-aid capacity with other county, city, or regulatory agencies. As development occurs within Yolo County, it becomes the County's responsibility to work within its neighborhoods and communities through zoning, planning and building regulations. These codes encompass all public and private properties and help Yolo County citizens maintain a standard in the community for all to enjoy. Additionally, the Yolo County Codes address the public's desire to live, and work, in diverse, attractive and well-managed communities, demanding more creative strategies to enforce proper and effective, land use regulations.

Compliance is encouraged through various methods; communication, cooperation and coordination. Occasionally, officials must take measures beyond inspection; these include the issuance of Administrative Citations and Notice of Violation recordation (Yolo County 2018).

EXISTING RECREATION AREAS AND OPEN SPACES

Parks and open space within Yolo County include city and County parks, regional parks, and open space areas managed by federal, state, and local agencies, non-governmental organizations, commercial mitigation banks, and other private interests. The State of California owns approximately 17,460 acres within the County, including the Yolo Bypass Wildlife Area and the Fremont Weir Wildlife Area.

The Yolo Bypass Wildfire Area encompasses approximately 16,600 acres of managed wildlife habitat and agricultural land located within the southern floodway of the Yolo Bypass. The Wildlife Area is a public and private restoration project managed by the California Department of Fish and Wildlife. The Yolo Basin Foundation is responsible for environmental education programs associated with the Yolo Bypass Wildlife Area. These programs occur both within the Wildlife Area and a short distance to the west at the Wildlife Area Headquarters, which includes walking trails, picnic tables, and other recreational amenities open for daily public use.

The Fremont Weir Wildlife Area is located primarily in the northeastern part of the County. This area is a floodway consisting of approximately 1,500 acres and is typically used for fishing, bird watching, wildlife viewing, and hunting. No facilities are located in the wildlife area.

Yolo County manages over 2,000 acres of regional and community parks and open space areas. The term "resource" park is used to refer to regional and/or open space parkland, which is typically much larger in size than a community park, and is characterized by passive and/or very low-management uses. "Resource" parks are intended to serve the County population and outside visitors, rather than a singular community. Community parks are generally small in area and are developed for a variety of community uses, gatherings, and events. These parks are intended to provide active recreation areas, such as playgrounds, sports fields, sports courts, and picnic areas. A list of County parks and open space areas and their acreage is shown below in Table 3.13-5.

Table 3.13-5 Existing County Parks and Open Space Areas

Park	Acreage
Dunnigan Community Park	0.5
Esparto Community Park	1
Cache Creek Canyon Regional Park, Trail System, and Campground	685
Cache Creek Conservancy Nature Preserve	119
Camp Haswell Park	7
Capay Open Space Park and Trail System	41
Clarksburg River Access Park	4
Correll-Rodgers Habitat Area	40
Elkhorn Regional Park	49
Gibson House Museum	2
Grasslands Regional Park and Trail System	320
Helvetia Oak Grove	11
Knights Landing River Access Park	4
Millsap Property	17
Nichols Park	21
Valley Vista Regional Park	587
Putah Creek Fishing Access	87

Table 3.13-5 Existing County Parks and Open Space Areas

Tuli Mem Park	9
Wild Wings Park	17
Total Acreage	**2,025.5**

Source: Compiled by Ascent Environmental in 2019

PLANNED RECREATION AREAS AND OPEN SPACE

Yolo County has several planned recreation and open space areas, as described in the Yolo County General Plan (Yolo County 2009a) and city general plans (City of Davis 2007; City of West Sacramento 2016b; City of Winters 1992; City of Woodland 2002). Planned features include the following:

- Woodland Regional Park;
- Capay Valley Bicycle Trail;
- gateway park in the Western Foothills;
- Blue Ridge Trail;
- trail linking Putah Creek access sites;
- trail linkages along Putah Creek between existing access sites in Winters and Davis;
- extension of existing bicycle trail along Putah Creek corridor;
- gateway park to Yolo Bypass;
- trail linkages along the Sacramento River between Knights Landing and Clarksburg;
- gateway park in the Delta region;
- new California Indian Heritage Center;
- expanded Sacramento River access and trail linkage;
- Dunnigan Hills Area Park;
- new community park in Knights Landing;
- new community park in Dunnigan;
- trail linking Cache Creek access sites;
- expansion of Cache Creek Regional Park;
- additional parks and trail linkages along Cache Creek corridor;
- Cache Creek Parkway;
- extension of existing bicycle trail west of Davis;
- new and expansion of existing neighborhood, miniparks, and community parks in Davis; and
- ongoing acquisitions by City of Davis Open Space and Habitat Commission.

OTHER PUBLIC SERVICES

Additional public services include schools, libraries, and social services. These services are not likely to be affected by the CLUO but will be briefly discussed here.

Schools

Yolo County is serviced by seven school districts that run a total of 82 schools. These school districts include the Davis Joint School District, Esparto Unified School District, Pierce Joint Unified School District, River Delta Joint Unified School District, Washington Unified School District, Winters Joint Unified School District, and Woodland Joint Unified School District. There are a variety of parochial and other private schools in Yolo County, primarily within the incorporated cities.

The Davis Joint School District has total enrollment of 8,587 students across 10 elementary schools, five junior high schools, four high schools, one adult and community education, and one preschool (CDE 2019a; DJUSD 2019). The Davis Joint School District has relatively stable enrollment numbers and does not have capacity issues. The Esparto Unified School District has a total enrollment of 941 students across one

elementary school, one middle school, and two high schools (CDE 2019b; EUSD 2019). In previous years, this district had struggles accommodating the students. However, there has been a decline in enrollment numbers creating additional space for students.

Pierce Joint Unified School District has 1,479 students with two elementary schools, one junior high school, and one high school (CDE 2019c; PJUSD 2019). This district does not have capacity issues and can accommodate additional students. The River Delta Joint Unified School District has 2, 354 students with four elementary schools, two middle schools, and four high schools (CDE 2019d; River Delta USD 2019). The River Delta Joint Unified School District has relatively stable enrollment numbers and does not have capacity issues.

Washington Unified School District has 8,322 students with seven elementary schools and one high school (CDE 2019e; WUSD 2019). This district does not have capacity issues. The Winters Joint Unified School District has 1,541 students across three elementary schools, one middle school, and one high school (CDE 2019f; WJUSD 2019). Due to the relatively stable enrollment numbers, the district is not experiencing capacity issues. Woodland Joint Unified School District has 10,031 students with 12 elementary schools, two middle schools, and four high schools (CDE 2019g; Woodland JUSD 2019).This district is not experiencing capacity issues due to the stable enrollment numbers.

Libraries

The library system in Yolo County provides library services in all incorporated cities and throughout the County. There are seven branch libraries along with administrative and technical services departments located in Winters, Davis, Sacramento, Clarksburg, Woodland, Knights Landing, and Esparto. Property taxes, state funds, library fines and fees, and donations fund the library system. All communities and cities in Yolo County are part of the library system, except for the City of Woodland. The City of Woodland has the library administrative center and the County archives.

Social Services

The County provides a variety of general government service functions that improve quality of life for County residents. These services include health, elections, education, child support, and administration of County operations.

3.13.2 Regulatory Setting

FEDERAL

No federal laws, regulations, or programs were identified related to public services and the CLUO. Several federal agencies have jurisdiction over law enforcement and fire protection on federal lands in California, related to unpermitted cultivation operations. The U.S. Forest Service responds to fires in National Forests as well as to fires on other lands in support of other federal, state, and local agencies (USFS 2017). Because cannabis use and cultivation remains illegal under federal law, several federal agencies investigate and prosecute cannabis use, cultivation, and distribution on federally managed lands. Federal agencies involved in law enforcement in California include the U.S. Forest Service, whose Law Enforcement and Investigations division conducts law enforcement operations on federal lands, including eradication of unpermitted cannabis cultivation on National Forest lands. Both the U.S. Bureau of Land Management and the National Park Service law enforcement programs target cannabis cultivation on federally managed lands.

In addition to law enforcement on federal lands, there are federal agencies that investigate and prosecute cannabis business activities, which is currently considered illegal at the federal level. The Federal Bureau of Investigation, as the nation's foremost law enforcement agency, also works in California to investigate federal crimes and crimes that occur across state lines, including drug trafficking. The U.S. Drug Enforcement Administration enforces federal controlled substances laws and regulations, including enforcement activities related to cannabis.

STATE

Mitigation Fee Act

Government Code Section 66000 through 66025 (commonly referred to AB 1600 requirements) allows local agencies to enact a development impact fee in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project. A development impact fee is not a tax or special assessment and must be reasonably related to the cost of the service provided by the local agency. Local agencies use development impact fees under this provision for facilities and equipment such as vehicles, fire and law enforcement stations, and equipment necessary to provide services to development.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, and fire suppression training.

California Division of Occupational Safety and Health

In accordance with CCR, Title 8 Section 1270, "Fire Prevention," and Section 6773, "Fire Protection and Fire Equipment," the California Division of Occupational Safety and Health (referred to as Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

California Building Standards Code

The California Building Standards Code, Title 24 of the California Code of Regulations, serves as the basis for the design and construction of buildings in California. The California Building Code (Title 24, Part 2) covers all aspects of building design and required safety features for all 1 types of buildings, including fire protection systems, fire and smoke protection features, means of egress, and structural design and materials. Title 24, Part 3 is the Electrical Code, which contains standards for electrical systems, including safety features such as overcurrent protection, surge arresters, and proper wiring methods.

California Fire Code

The California Fire Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The California Fire Code establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. The California Fire Code also contains requirements related to emergency planning and preparedness, fire service features, building services and systems, fire resistance–rated construction, fire protection systems, and construction requirements for existing buildings, as well as specialized standards for specific types of facilities and materials. Structures used for indoor cultivation of cannabis and cannabis-supportive uses (e.g., manufacturing, distribution, processing, microbusinesses, and retail nurseries) would be subject to applicable sections of the California Fire Code.

Public Resources Code Section 4291

PRC Section 4291 requires a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material to maintain defensible space of 100 feet from each side and from the front and rear of the structure. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.

California Building Code

CCR Title 24, Part 2, Section 701A.3.2 (New Buildings Located in Any Fire Hazard Severity Zone) requires that new buildings located in any Fire Hazard Severity Zone within SRAs, any local agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted shall comply with all the requirements of Chapter 7A, including the following requirements:

- roofing design must be fire resistant and constructed to prevent the intrusion of flames and embers (Section 704A.1),
- attic ventilation must be designed to be resistant to the intrusion of flames and embers into the attic area of the structure (Section 704A.2),
- exterior walls (including vents, windows, and doors) must be designed with noncombustible or ignition-resistant material and resist the intrusion of flame and ember (Section 704A.3),
- decking must be designed with ignition-resistant material (Section 704A.4), and
- ancillary buildings and structures must comply with the above provisions (Section 704A.5).

Public School Development Impact Fees

Government Code Section 65995 establishes the dollar amount school districts may impose on new development; however, this may not be sufficient to fund all required facilities. Funding from state grants is possible but other sources would most likely still be required. Sources include but are not limited to Proposition 51 (2016 Public School Facility Bonds) funds, increased developer and local tax fees, and the local general obligation bond funds. New public school facilities proposed by school districts must undergo site-specific CEQA and California Board of Education evaluation before construction to identify and lessen environment-related impacts.

California Government Code Sections 65995(h) and 65996(b) require full and complete school facilities mitigation. Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provision of adequate school facilities and Section 65996(b) states that the provisions of the Government Code provide full and complete school facilities mitigation.

Emergency Response/Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Noncompliance with SEMS could result in the state withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. The preservation of life, property and the environment is an inherent responsibility of local, state, and federal government.

Cannabis Licensing Agencies

There are three state licensing agencies that regulate the commercial cannabis market:

- Bureau of Cannabis Control, housed within the Department of Consumer Affairs, which licenses testing labs, distributors, retail, and microbusinesses;
- CalCannabis Cultivation Licensing (CalCannabis), housed within the Department of Food and Agriculture, which licenses cannabis cultivators, nurseries, and processors; and
- Manufactured Cannabis Safety Branch, housed within the Department of Public Health, which licenses manufacturers of cannabis products, including edibles.

Regulations associated with public services are described below.

CalCannabis Licensing

- CCR Section 8102(aa): An attestation that the local fire department has been notified of the cultivation site if the application is for an indoor license type.

- CCR Section 8109: Licensees shall notify the department and law enforcement authorities within three (3) calendar days of discovery of any diversion, theft, loss of, or criminal activity related to licensee's cannabis or nonmanufactured cannabis products.

Bureau of Cannabis Control Licensing

- CCR Section 5501(i): An attestation that the local fire department has been notified of the cultivation site if the application is for an indoor license type.

- CCR Section 5036(a): A licensee shall notify the Bureau and local law enforcement within 24 hours of discovery of any of the following situations:

  (1) The licensee discovers a significant discrepancy, as defined in section 5034 of this division, in its inventory.

  (2) The licensee discovers diversion, theft, loss, or any other criminal activity pertaining to the operations of the licensee.

  (3) The licensee discovers diversion, theft, loss, or any other criminal activity by an agent or employee of the licensee pertaining to the operations of the licensee.

  (4) The licensee discovers loss or unauthorized alteration of records related to cannabis goods, customers, or the licensee's employees or agents.

  (5) The licensee discovers any other breach of security.

- CCR Section 5036(b): The notification to the Bureau pursuant to subsection (a) of this section shall be submitted on the Notification and Request Form, BCC-LIC-027 (New 10/18), which is incorporated herein by reference, and shall include the date and time of occurrence of the theft, loss, or criminal activity, the name of the local law enforcement agency that was notified, and a description of the incident including, where applicable, the item(s) that were taken or lost.

- CCR Section 5418(h): Immediately upon request by the Bureau or any law enforcement officer, the licensed retailer's delivery driver shall provide:

  (1) All delivery inventory ledgers from the time the licensed retailer's delivery driver left the licensed premises up to the time of the request;

  (2) All delivery request receipts for cannabis goods carried by the driver, in the delivery vehicle, or any deliveries that have already been made to customers; and

  (3) The log of all stops from the time the licensed retailer's delivery driver left the licensed premises up to the time of the request.

- CCR Section 5424(d): If a licensed retailer identifies any evidence of theft, diversion, or loss, the licensed retailer shall notify the Bureau and law enforcement.

- CCR Section 5424(e): If a significant discrepancy as defined in section 5034 of this division is discovered between a licensed retailer's physical inventory and the licensed retailer's inventory records, the licensed retailer shall notify the Bureau and law enforcement.

- CCR Section 5042: Limited Access Areas:

  (a) Licensees shall ensure that only employees of the licensee and other authorized individuals access the limited-access areas of the licensed premises.

  (b) For the purpose of this section, authorized individuals include outside vendors, contractors, or other individuals conducting business that requires access to the limited-access areas.

  (c) An individual who enters the limited-access area and is not employed by the licensee shall be escorted by an employee of the licensee at all times while within the limited-access area.

  (d) A licensee shall maintain a record of all authorized individuals who are not employees of the licensee who enter the limited-access areas. The record shall include the name of the individual, the company the individual works for, the reason the individual entered the limited-access area, the date, and the times the individual entered and exited the limited-access area. These records shall be made available to the Bureau immediately upon request.

  (e) A licensee shall not receive consideration or compensation for permitting an individual to enter the limited-access areas.

  (f) Entrances to all limited-access areas shall have a solid door and a lock meeting the requirements of section 5046 of this division. The door shall remain closed when not in use during regular business hours.

- CCR Section 4053: License Employee Badge Requirement:

  All agents, officers, or other persons acting for or employed by a licensee shall display a laminated or plastic-coated identification badge issued by the licensee at all times while engaging in commercial cannabis activity. The identification badge shall, at a minimum, include the licensee's "doing business as" name and license number, the employee's first name, an employee number exclusively assigned to that employee for identification purposes, and a color photograph of the employee that clearly shows the full front of the employee's face and that is at least 1 inch in width and 1.5 inches in height.

- CCR Section 5044: Video Surveillance System:

  (a) Each licensed premises shall have a digital video surveillance system with a minimum camera resolution of 1280 × 720 pixels.

  (b) The video surveillance system shall at all times be able to effectively and clearly record images of the area under surveillance.

  (c) Each camera shall be permanently mounted and in a fixed location. Each camera shall be placed in a location that allows the camera to clearly record activity occurring within 20 feet of all points of entry and exit on the licensed premises, and allows for the clear and certain identification of any person and activities in all areas required to be filmed under subsection (d) of this section.

  (d) Areas that shall be recorded on the video surveillance system include the following:

    (1) Areas where cannabis goods are weighed, packed, stored, loaded, and unloaded for transportation, prepared, or moved within the licensed premises;

    (2) Limited-access areas;

    (3) Security rooms;

(4) Areas storing a surveillance-system storage device with at least one camera recording the access points to the secured surveillance recording area; and

(5) Entrances and exits to the licensed premises, which shall be recorded from both indoor and outdoor vantage points.

(e) Licensed retailers and licensed microbusinesses authorized to engage in retail sales shall also record point-of-sale areas and areas where cannabis goods are displayed for sale on the video surveillance system. At each point-of-sale location, camera placement must allow for the recording of the facial features of any person purchasing or selling cannabis goods, or any person in the retail area, with sufficient clarity to determine identity.

(f) Cameras shall record continuously 24 hours per day and at a minimum of 15 frames per second (FPS).

(g) The physical media or storage device on which surveillance recordings are stored shall be secured in a manner to protect the recording from tampering or theft.

(h) Surveillance recordings shall be kept for a minimum of 90 calendar days.

(i) Surveillance recordings are subject to inspection by the Bureau, and shall be kept in a manner that allows the Bureau to view and obtain copies of the recordings at the licensed premises immediately upon request. The licensee shall also send or otherwise provide copies of the recordings to the Bureau upon request within the time specified by the Bureau.

(j) Recorded images shall clearly and accurately display the time and date. Time is to be measured in accordance with the standards issued by the United States National Institute of Standards and Technology.

(k) The video surveillance system shall be equipped with a failure notification system that provides notification to the licensee of any interruption or failure of the video surveillance system or video surveillance-system storage device.

(l) If multiple licensed premises are contained within the same building, a single video surveillance system covering the entire building may be used by all of the licensees under the following conditions:

(1) Each applicant or licensee shall disclose on their premises diagram where the surveillance recordings are stored.

(2) Each applicant or licensee shall include in their security operating procedures, submitted with the application pursuant to section 5002(c)(29)(D) of this division, an explanation of how the video surveillance system will be shared, including who is responsible for monitoring the video footage and storing any video recordings.

(3) All licensees shall have immediate access to the surveillance recordings to produce them pursuant to subsection (i) of this section.

(4) All licensees shall be held responsible and subject to discipline for any violations of the video surveillance requirements.

- CCR Section 5045: Security Personnel:

(a) A licensed retailer or licensed microbusiness authorized to engage in retail sales shall hire or contract for security personnel who are at least 21 years of age to provide on-site security services for the licensed retail premises during the hours of operation. All security personnel hired or

contracted for by the licensee shall be licensed by the Bureau of Security and Investigative Services and shall comply with Chapters 11.4 and 11.5 of Division 3 of the Business and Professions Code.

(b) Notwithstanding subsection (a) of this section, a licensed non-storefront retailer or licensed microbusiness who is not engaged in storefront retail sale is not required to hire or contract for security personnel. (c) If multiple licensed premises are contained within the same building, security personnel may be shared by all of the licensees to cover the entire building under the following conditions:

(1) Each licensee shall include in their security operating procedures, submitted with the application pursuant to section 5002(c)(29)(D) of this division, an explanation of how security personnel will be shared, including who is responsible for employing or contracting the security personnel.

(2) All licensees shall be held responsible and subject to discipline for any violations of the security personnel requirements.

- CCR Section 5046: Locks:

  A licensee shall ensure that the limited-access areas described in section 5042 of this division can be securely locked using commercial-grade, nonresidential door locks. A licensee shall also use commercial-grade, nonresidential door locks on all points of entry and exit to the licensed premises.

- CCR Section 5047: Alarm Systems:

  (a) A licensee shall maintain an alarm system as defined in Business and Professions Code section 7590.1(n) at the licensed premises.

  (b) A licensee shall ensure a licensed alarm company operator or one or more of its registered alarm agents installs, maintains, monitors, and responds to the alarm system.

  (c) Upon request, a licensee shall make available to the Bureau all information related to the alarm system, monitoring, and alarm activity.

  (d) If multiple licensed premises are contained within the same building, a single alarm system covering the entire building may be used by all of the licensees under the following conditions:

  (1) Each licensee shall include in their security operating procedures, submitted with the application pursuant to section 5002(c)(29)(D) of this division, an explanation of how the alarm system will be shared, including who is responsible for contracting with the alarm company.

  (2) All licensees shall have access to and be able to provide the information under subsection (c) of this section.

  (3) All licensees shall be held responsible and subject to discipline for any violations of the alarm system requirements.

Manufacture Cannabis Safety Branch Licensing

- CCR Section 40131(l): A copy of the signed closed-loop system certification and a document evidencing approval of the extraction operation by the local fire code official required pursuant to Section 40223 or 40225, if applicable.

- CCR Section 40200: Security Plan:

  Every licensee shall develop and implement a written security plan. At a minimum, the security plan shall include a description of the security measures to:

(a) Prevent access to the manufacturing premises by unauthorized persons and protect the physical safety of employees. This includes, but is not limited to:

(1) Establishing physical barriers to secure perimeter access and all points of entry into a manufacturing premises (such as locking primary entrances with commercial-grade, non-residential door locks, or providing fencing around the grounds and driveway, and securing any secondary entrances including windows, roofs, or ventilation systems);

(2) Installing a security alarm system to notify and record incident(s) where physical barriers have been breached;

(3) Establishing an identification and sign-in/sign-out procedure for authorized personnel, suppliers, and visitors;

(4) Maintaining the premises such that visibility and security monitoring of the premises is possible; and

(5) Establishing procedures for the investigation of suspicious activities.

(b) Prevent against theft or loss of cannabis and cannabis products. This includes but is not limited to:

(1) Establishing an inventory system to track cannabis and cannabis products and the personnel responsible for processing it throughout the manufacturing process;

(2) Limiting access of personnel within the premises to those areas necessary to complete job duties, and to those time-frames specifically scheduled for completion of job duties, including access by outside vendors, suppliers, contractors or other individuals conducting business with the licensee that requires access to the premises;

(3) Supervising tasks or processes with high potential for diversion, including the loading and unloading of cannabis transportation vehicles; and

(4) Providing areas in which personnel may store and access personal items that are separate from the manufacturing areas.

(c) Secure and back up electronic records in a manner that prevents unauthorized access and that ensures the integrity of the records is maintained.

- CCR Section 40205: Video Surveillance:

(a) At minimum, a licensed premises shall have a digital video surveillance system with a minimum camera resolution of 1280 × 720 pixels. The video surveillance system shall be able to effectively and clearly record images of the area under surveillance.

(b) To the extent reasonably possible, all video surveillance cameras shall be installed in a manner that prevents intentional obstruction, tampering with, or disabling.

(c) Areas that shall be recorded on the video surveillance system include the following:

(1) Areas where cannabis or cannabis products are weighed, packed, stored, quarantined, loaded and unloaded for transportation, prepared, or moved within the premises;

(2) Limited-access areas;

(3) Security rooms;

(4) Areas containing surveillance-system storage devices, which shall contain at least one camera to record the access points to such an area; and

(5) The interior and exterior of all entrances and exits to the premises.

(d) The surveillance system shall record continuously 24 hours per day and at a minimum speed of 15 frames per second.

(e) Any on-site surveillance system storage devices shall be located in secure rooms or areas of the premises in an access-controlled environment.

(f) The licensee shall ensure that all surveillance recordings are kept for a minimum of 90 days.

(g) All video surveillance recordings shall be available on the licensed premises and are subject to inspection by the Department and shall also be copied and sent, or otherwise provided, to the Department upon request.

(h) The video recordings shall display the current date and time of recorded events. Time is to be measured in accordance with the U.S. National Institute of Standards and Technology standards. The displayed date and time shall not significantly obstruct the view of recorded images.

(i) If multiple licensed premises are contained within the same building, a single video surveillance system covering the entire building may be used by all of the licensees under the following conditions:

(1) Each applicant or licensee shall disclose on their premises diagram where the surveillance recordings are stored;

(2) Each applicant or licensee shall include in their security operating procedures an explanation of how the video surveillance system will be shared, including who is responsible for monitoring the video footage and storing any video recordings;

(3) All licensees shall have immediate access to the surveillance recordings to produce them pursuant to the requirements of this section;

(4) All licensees shall be held responsible and subject to discipline for any violations of the video surveillance requirements.

- CCR Section 40207: Notification of Theft, Loss, or Diversion:

  If a licensee finds evidence of theft or diversion of cannabis or cannabis products, the licensee shall report the theft or diversion to the Department and local law enforcement within 24 hours of the discovery. The notice to the Department shall be in writing and shall include the date and time of the incident; a description of the incident, including items that were taken or missing; and the name of the local law enforcement agency that was notified of the incident.

  CCR Section 40223(b): Ethanol extraction operations shall be approved by the local fire code official and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

- CCR Section 40225: Closed-Loop Extraction System Requirements:

  (a) Chemical extractions using CO2; a volatile solvent; or chlorofluorocarbon, hydrocarbon, or other fluorinated gas shall be conducted in a professional closed loop extraction system designed to recover the solvents. The system shall be commercially manufactured and bear a permanently affixed and visible serial number. The system shall be certified by a California-licensed engineer that

the system was commercially manufactured, safe for use with the intended solvent, and built to codes of recognized and generally accepted good engineering practices, such as:

(1) The American Society of Mechanical Engineers (ASME);
(2) American National Standards Institute (ANSI);
(3) Underwriters Laboratories (UL); or
(4) The American Society for Testing and Materials (ASTM).

(b) Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for use by the local fire code official and comply with any required fire, safety, and building code requirements related to the processing, handling, and storage of the applicable solvent or gas.

(c) The certification document required pursuant to subsection (a) shall contain the signature and stamp of a California-licensed professional engineer and the serial number of the extraction unit being certified.

(d) The licensee shall establish and implement written procedures to document that the closed loop extraction system is maintained in accordance with the equipment manufacturer specifications and to ensure routine verification that the system is operating in accordance with specifications and continues to comply with fire, safety, and building code requirements.

(e) A licensee shall develop standard operating procedures, good manufacturing practices, and a training plan prior to producing extracts. Any personnel using solvents or gases in a closed loop system to create extracts must be trained on how to use the system, have direct access to applicable safety data sheets, and handle and store solvents and gases safely.

(f) The extraction operation shall be operated in an environment with proper ventilation, controlling all sources of ignition where a flammable atmosphere is or may be present, and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

(g) No closed loop extraction system operation shall occur in an area zoned as residential.

LOCAL

Central California Emergency Medical Services Agency

The EMS Authority provides statewide coordination and leadership for the planning, development, and implementation of local EMS systems. California has 33 local EMS systems, which provide EMS for California's 58 counties. Seven regional EMS systems and 26 single County agencies provide the services. Regional systems are usually comprised of small, more rural, less-populated counties and single-County systems generally exist in the larger and more urban counties (EMSA 2018).

Yolo County 2030 Countywide General Plan

The goals and policies of the Public Facilities and Services, Land Use and Community Character and Health and Safety Elements of the Yolo County 2030 Countywide General Plan seek to ensure that infrastructure and services will be sufficient to support existing and new development in Yolo County.

Policies related to public services and the project include:

- **Policy PF-4.1:** Ensure the provision of appropriate law enforcement service and facilities to serve existing and planned land uses.

- **Policy PF-4.2:** Strive to maintain an average response time of 12 minutes for 90 percent of priority law enforcement calls in the rural areas.

- **Policy PF-4.3**: Maintain a minimum ratio of 1.75 sworn officers per 1,000 service population, which is defined as both the number of residents and employees located solely within the unincorporated area. For the purposes of this policy, an employee is weighted at 0.26 the cost of service for a resident. Maintenance of this ratio includes the necessary facilities, equipment, and non-uniformed personnel to support that ratio. Commercial and/or industrial projects, businesses, events, and other proposals that generate higher demands for Sheriff's services shall be evaluated to determine if additional resources are needed to address potential fiscal impacts.

- **Policy PF-4.4**: Incorporate law enforcement concerns into land use planning, including the following measures:

    - Identify and mitigate potential law enforcement hazards of new development during the project review and approval process.

    - Work with local community groups to prevent crime.

    - Promote the creation of Neighborhood Watch Groups in residential areas.

    - Coordinate with Chambers of Commerce, business associations, and others to increase public safety within commercial areas.

- **Action PF-A25**: Enhance public safety through implementation of "Crime Prevention Through Environmental Design" strategies including designing the placement of activities and physical features, such as buildings, entrances and exits, corridors, fences, pavement, signs, lighting and landscaping, in such a way as to clearly define public and private space, maximize visibility, control access and circulation, and foster positive social interaction.

- **Policy PF-5.1:** Improve the performance and efficiency of fire protection and emergency medical services

- **Policy PF-5.2**: Maintain mutual aid agreements between fire districts and other emergency medical service providers to ensure efficient use of available resources.

- **Policy PF-5.3**: Require assertive fire protection measures in all development to supplement limited rural fire district resources.

- **Policy PF-5.4:** Encourage fire districts and other emergency medical service providers to achieve National Fire Protection Association standards of an average response time for emergency calls of nine minutes at least 90 percent of the time in the unincorporated communities and 15 minutes at least 80 percent of the time in rural areas, with the exception of remote areas (requiring a travel distance of more than 8 miles).

- **Policy PF-5.5:** Encourage fire districts to maintain an overall fire insurance (ISO) public protection classification (PPC) rating of Rural 7 or better for fire protection service within the unincorporated communities.

- **Policy PF-5.9:** The County shall require, and applicants must provide, a will-serve letter from the appropriate fire district/department confirming the ability to provide fire protection services to the project, prior to each phase.

- **Policy PF-5.10:** Reduce vegetation and other wildland fuels on County-owned land within the State Responsibility Area to reduce the intensity of fires, consistent with biological, scenic, and recreational considerations.

- **Action PF-A29**: Require that new development comply with all State and local requirements within the State Responsibility Area.

- **Action PF-A30**: Maintain requirements that fire sprinklers be installed in all new residences and commercial/industrial areas where appropriate.

- **Policy PF-6.2:** Work to ensure that schools serving new development are construct concurrent with the needs of the community, to the extent allowed by State law.

- **Policy PF-12.6:** Provide the public facilities and services necessary to meet community needs, in an efficient manner.

- **Policy LU-5.5:** Ensure that public facilities, services, and amenities are distributed equitably and in locations that enhance the quality of life for the broadest number of County residents.

- **Policy CC-2.2:** Ensure that the appropriate base level of rural services and infrastructure for existing development in each community is required in connection with new development.

- **Policy HS-3.1:** Manage the development review process to protect people, structures, and personal property from unreasonable risk from wildland fires.

- **Policy HS-3.2**: Encourage well-organized and efficient coordination between fire agencies and the County.

- **Policy HS-3.3:** Clearly communicate the risks, requirements, and options available to those who own land and live in wildfire hazard areas.

Measure K Cannabis Tax

In June 2018 the voters of Yolo County, including those in the incorporated cities, approved Measure K. This measure authorizes the County to impose a general tax on the gross receipts of commercial cannabis. The Board of Supervisors adopted Ordinance 1496 that amends Chapter 18 to Title 3 to the Yolo County Code to impose a County general tax on cannabis businesses in the unincorporated area of Yolo County. The ordinance establishes the following tax rates: a minimum tax rate of 1 percent of gross receipts per fiscal year, not to exceed a maximum tax rate of 15 percent of gross receipts per fiscal year, with the initial tax rate for cultivation being set at 4 percent of gross receipts per fiscal year with an automatic increase to 5 percent as of July 1, 2020, and the initial tax rate for all other commercial cannabis businesses being set at 5 percent, with subsequent adjustments of no more than 2 percentage points (up or down) in any 12 month period. The tax applies to all medical and nonmedical cannabis businesses.

The tax is for general governmental purposes and revenue generated from the tax can be spent for unrestricted general revenue purposes, including for items such as criminal enforcement of illegal cultivation, early childhood intervention and prevention, youth development, substance abuse education and treatment for children and adults, rural infrastructure and programs and cannabis research, or other expenditure per the Board of Supervisors' direction.

3.13.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis below evaluates to what extent adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the CLUO, may result in significant impacts on public services and recreation facilities that could trigger physical environmental impacts. This program-level analysis is based upon information provided in Section 3.13.1, "Environmental Setting," and communications with fire departments and the Yolo County Sheriff's Office. The reader is referred to Section 3.9, "Hazards and Hazardous Materials," for an analysis of wildfire hazards.

The assumptions for the extent of cannabis uses identified in Table 2-5, Section 3.0, "Environmental Analysis Approach," Appendix D, and Exhibits 2-4 through 2-8 in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," were used in the impact analysis below. Specific requirements of existing laws and regulations described in the regulator setting as well as the proposed CLUO (see Appendix C) were assessed for their ability to avoid or reduce impacts on public services and recreation facilities.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address possible impacts anticipated with the implementation of the CLUO under the five alternatives under consideration.

The project would result in a significant impact related to public services or recreation if it would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - fire protection,
    - police protection,
    - schools,
    - parks, or
    - other public facilities;
- increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

As described in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO would not result in impacts on public schools, parks, recreation, or other governmental services that would require the construction of new facilities to serve the project. Therefore, these impact issue areas are not further evaluated.

IMPACT ANALYSIS

Impact PS-1: Result in Substantial Adverse Physical Impacts Associated with the Need for New or Physically Altered Fire Protection Facilities

Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could create additional structures, electrical uses, and other cannabis operations that could expose people to additional fire risk, leading to the potential need in increased fire protection facilities. Compliance with Sections 8-21408(K), 8-21408(Q), and 8-21408(FF) of the CLUO, the California Building Standards Code, California Fire Code, and state cannabis regulations would provide a sufficient level of fire protection and access such that fire protection services would not be substantially affected. This impact would be **less than significant** for all alternatives.

As noted in Section 3.13.1, "Environmental Setting," fire services within the unincorporated areas of Yolo County are provided by 15 FPDs. Under the CLUO, new cannabis uses could be developed in the unincorporated areas of the County that could increase fire protection service demands as a result of new/additional structures and people in certain areas that may require fire protection. Development under the CLUO could result in additional structures and people in particular areas that are required to comply with the California Building Standards Code, the California Fire Code, and state cannabis regulations.

Fire protection demands for cannabis operations are generally no different than for similar land uses within the cannabis use categories identified in Section 8-2.1405 of the proposed CLUO. In general, fire protection related activities include plan review, site/structure inspections, fire code enforcement, fire preparedness/prevention education, fire suppression, and hazardous material/emergency response. Cannabis cultivation (both indoor and outdoor) including nurseries and processing, share fire risk characteristics of similar agricultural uses, for example, other field and nursery crops, and other agricultural processing activities. Due to field spacing (for outdoor crops) and limited overall grow size for greenhouse environments fire risk may be comparably less. Retail (dispensary) cannabis uses share fire risk characteristics of other similar retail uses such as pharmacies and drug stores operated in structures built for commercial occupancies, such as retail sales.

Manufacturing and testing uses share general similarities with other manufacturing, laboratory, and research development uses. For example, to create cannabis oil, a solvent (e.g. butane, ethanol, isopropanol, propane, etc.) is used to draw tetrahydrocannabinol (THC) from the flowers, leaves, and stems of cannabis plants. The resulting mixture of solvent and THC is then filtered and collected. Afterwards, the mixture is heated to evaporate the solvent and acquire the desired oil. Applicable fire regulations govern the maximum allowable quantity of hazardous materials in various controlled and non-controlled areas of a structure.

"Manufacturing" or "manufacturing operation" is defined in applicable state regulations to include all aspects of the extraction and/or infusion processes, including processing, preparing, holding, storing, packaging, or labeling of cannabis products. Manufacturing also includes any processing, preparing, holding, or storing of components and ingredients. Manufacturing may involve nonvolatile and volatile solvents which will determine what kind of California cannabis manufacturing license is required. "Nonvolatile solvent" means any solvent used in the extraction process that is not a volatile solvent, including carbon dioxide. "Volatile solvent" means any solvent that is or produces a flammable gas or vapor that, when present in the air in sufficient quantities, will create explosive or ignitable mixtures. The state's examples of volatile solvents include, butane, hexane, propane, and ethanol. A Type 6 cannabis manufacturing licensee can only use nonvolatile solvents, whereas a Type 7 licensee can use both nonvolatile and volatile solvents in extractions and infusions.

As described above, overall fire risk characteristics of cannabis activities such as fuel load, surface area, heat content, fuel moisture, and other considerations are comparable to similar uses in comparable land use categories. Potential risks involving combustibility, flammability, ventilation, and physical hazards are regulated through existing codes and requirements. Cannabis activities do not introduce new or unusual fire risk characteristics that would affect fire response as compared to uses allowed at the same locations under existing conditions.

The CLUO provides the following performance standards that address fire safety:

- Section 8-2.1408(F) requires design and construction of buildings and structures to comply with all applicable codes, standards, regulations, and guidelines. In addition, all required building permits shall be obtained.

- Section 8-2.1408(K) requires all operations to have a rapid entry system for use by emergency personnel and the permittees must demonstrate safe and adequate driveway access to the satisfaction of the County or Caltrans, as appropriate, in compliance with applicable standards. This standard also requires that driveways have an all-weather surface.

- Section 8-2.1408(Q) requires "all uses to comply with the California Building, Electrical, and Fire Codes as adopted by the County, and ensure adequate access, water availability, and other conditions for fire protection as applicable for the location and use/activity" Permittees shall manage vegetation and maintain fire breaks to minimize fire danger.

- Section 8-2.1408(FF) requires that sites have adequate parking that would not obstruct emergency or fire access to the area.

Permittees would be required to demonstrate compliance with these fire protection measures through site design details under CLUO Section 8-2.1408(OO). These CLUO performance standards would be consistent with General Plan Policy PF-5.3 and Action PF-A29 regarding the provision of fire protection measures.

CCR Title 17, Division 1, Chapter 13 provides fires safety requirements for cannabis manufacturing uses:

- Section 40223(b): Ethanol extraction operations shall be approved by the local fire code official and shall be operated in accordance with applicable Division of Occupational Safety and Health (Cal/OSHA) regulations and any other state and local requirements.

- Section 40225(b): Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for use by the local fire code official and comply with any required fire, safety, and building code requirements related to the processing, handling, and storage of the applicable solvent or gas.

- Section 40225(d): The licensee shall establish and implement written procedures to document that the closed loop extraction system is maintained in accordance with the equipment manufacturer specifications and to ensure routine verification that the system is operating in accordance with specifications and continues to comply with fire, safety, and building code requirements.

- Section 40280(a): The licensee shall implement a training program to ensure that all personnel present at the premises are provided information and training that covers health and safety hazards and emergency response procedures.

Compliance with these standards for manufacturing uses may involve additional improvements to buildings to suppress and/or contain fires (e.g., sprinklers, fire rated doors and walls, and other similar improvements) as well as the use of hazardous material storage lockers for flammable materials that are designed to be fire resistant.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given the minor extent of this use, no increases in the demand for fire services are anticipated, and no new/expanded fire protection facilities would be necessary.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

This alternative assumes the retention of the current extent of cannabis cultivation that is allowed in the County. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. As shown in Exhibit 3.13-2, existing and eligible cultivation sites under Alternative 1 are located in the following FPDs:

- Capay Valley FPD,
- Dunnigan FPD,
- Willow Oak FPD,

- Esparto FPD,
- Madison FPD,
- Winters FPD,
- Knights Landing FPD,
- Zamora FPD,
- Yolo FPD,
- Clarksburg FPD, and
- Springlake FPD.

In addition to the CLUO performance standards specified above (Sections 8-2.1408[F], 8-2.1408[K], 8-2.1408[Q], 8-2.1408[FF], and 8-2.1408[OO]), the nine cultivation site relocations assumed under Alternative 1 would be required to comply with state requirements pertaining to fire protection. These requirements include CCR Title 24, Part 2, Chapter 7A, which requires buildings to be fire resistant (roof material, decking material, accessory structures, and venting to resist the intrusion of flame and ember); PRC Section 4291, which addresses defensible space and fuel modification standards; and provision of sufficient fire equipment and emergency access standards.

Based on the FPDs experience over the past couple of years, the development under Alternative 1 would not exceed the existing response capability of the FPDs (Burns, Tofoya 2019). Therefore, through compliance with the proposed CLUO regulations and the CA Building Standards Code and CA Fire Code requirements, Alternative 1 would not increase the need for expanded fire protection services such that construction of new fire protection facilities (e.g., fire stations) would be necessary.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 3.13-3, Alternative 2 is assumed for analysis purposes to add 54 new cannabis uses (cultivation and noncultivation) to the following FPDs:

- Capay Valley FPD,
- Dunnigan FPD,
- Willow Oak FPD,
- Esparto FPD,
- Madison FPD,
- Winters FPD,
- Zamora FPD,
- Yolo FPD, and
- Springlake FPD.

Cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(Q) for provision of fire breaks to protect buildings and avoid the spread of fire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(F) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase fire hazards to residents or buildings.

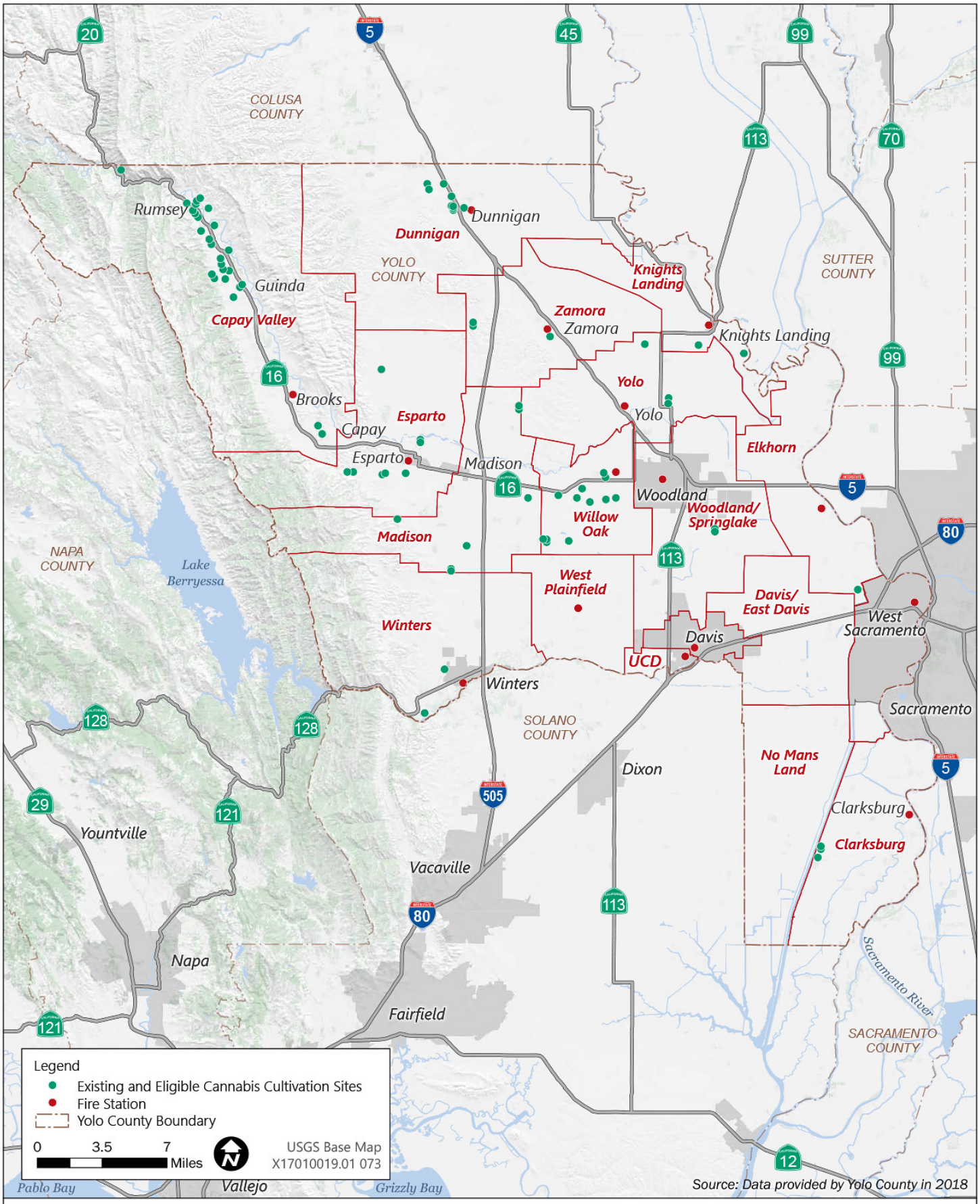


Exhibit 3.13-2 **Alternative 1 Cannabis Uses and Fire Protection Districts**

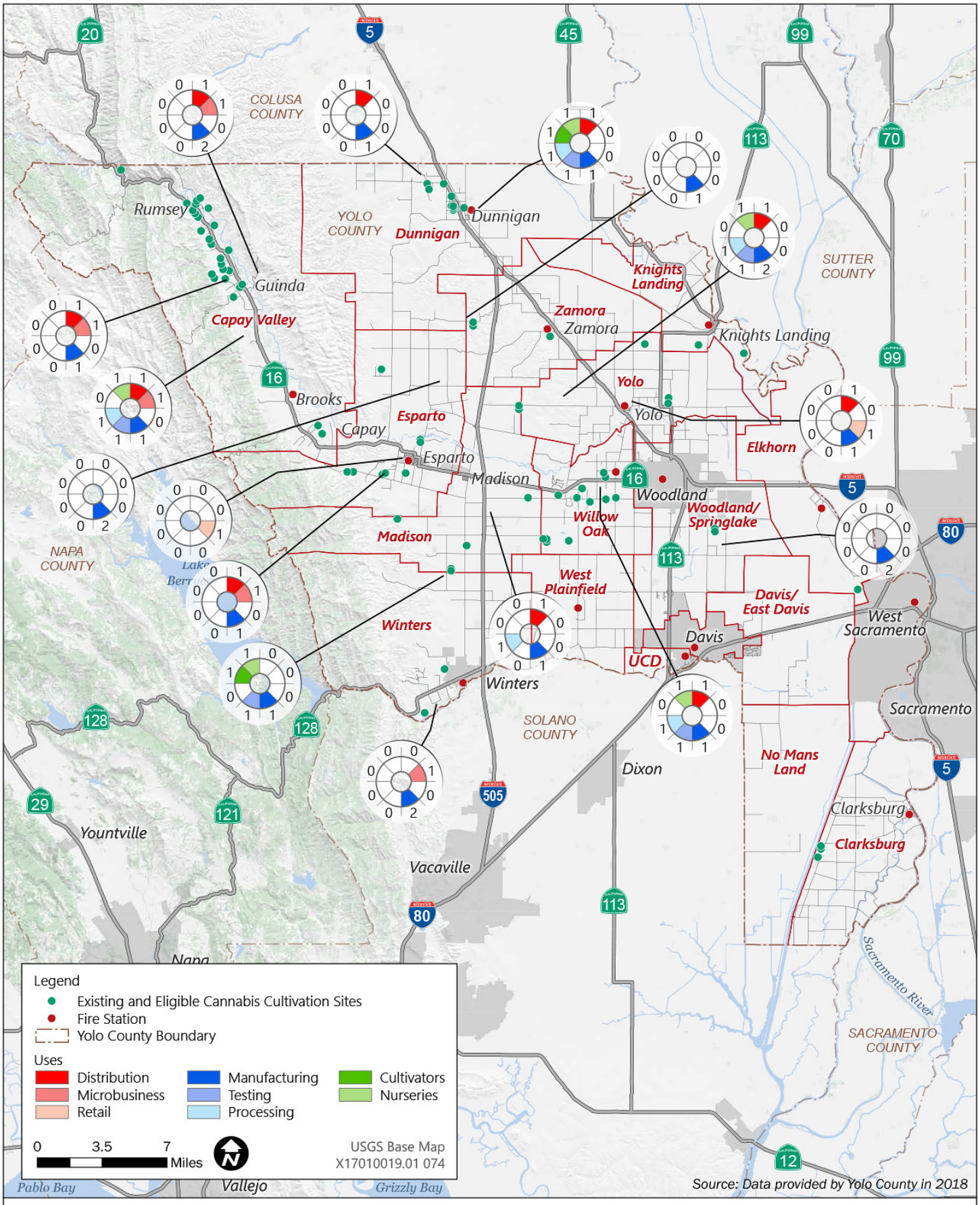


Exhibit 3.13-3 **Alternative 2 Cannabis Uses and Fire Protection Districts**

Compliance with the applicable CLUO performance standards, the California Building Standards Code, the California Fire Code, and state cannabis regulations would ensure that fire protection and safety measures are incorporated into the cannabis site designs so that a demand for new fire protection services would be minimized. In addition, as part of the land use permitting process under the CLUO, each individual cannabis project would be evaluated to ensure compliance with the local and state fire protection requirements. This project evaluation would also verify that sufficient response capability exists within the applicable FPD and automatic aid jurisdictions. On-site inspections of each cannabis project would be conducted to ensure compliance with County and state fire protection requirements. Given these provisions, there would be no need for expanded fire protection services that would necessitate the construction of new fire protection facilities (e.g., fire stations).

If a hazardous materials incident was beyond the response capabilities of the local Fire Protection District, the Yolo Operational Area Hazardous Response Team would respond. Nevertheless, there would be a need for local fire personnel to become familiar with volatile manufacturing facilities. This could be provided by the facility owners working with the applicable FPDs and would not require new fire protection facilities.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 is assumed to result in new cultivation sites in all of the County's fire districts. As shown in Exhibit 3.13-4, Alternative 3 is assumed for analysis purposes to add a total of 186 new cannabis uses (cultivation and noncultivation) to the following FPDs:

- Capay Valley FPD,
- Dunnigan FPD,
- Willow Oak FPD,
- Esparto FPD,
- Madison FPD,
- Winters FPD,
- Zamora FPD,
- West Plainfield FPD,
- Yolo FPD, and
- Springlake FPD.

Compliance with the applicable CLUO performance standards, the California Building Standards Code, the California Fire Code, and state cannabis regulations identified above and in the discussion for Alternative 2 would ensure that fire protection and safety measures are incorporated into the cannabis site designs so that a demand for new fire protection services would be minimized. In addition, as part of the land use permitting process under the CLUO, each individual cannabis project would be evaluated to ensure compliance with the local and state fire protection requirements. This project evaluation would also verify that sufficient response capability exists within the applicable FPD and automatic aid jurisdictions. On-site inspections of each cannabis project would be conducted to ensure compliance with County and state fire protection requirements.

Given these provisions, there would be no need for expanded fire protection services that would necessitate the construction of new fire protection facilities (e.g., fire stations).

If a hazardous materials incident was beyond the response capabilities of the local Fire Protection District, the Yolo Operational Area Hazardous Response Team would respond. Nevertheless, there would be a need for training and familiarization of local fire personnel with volatile manufacturing facilities. This could be provided by the facility owners working with the applicable FPDs and would not require new fire protection facilities.

This impact would be **less than significant** under Alternative 3.

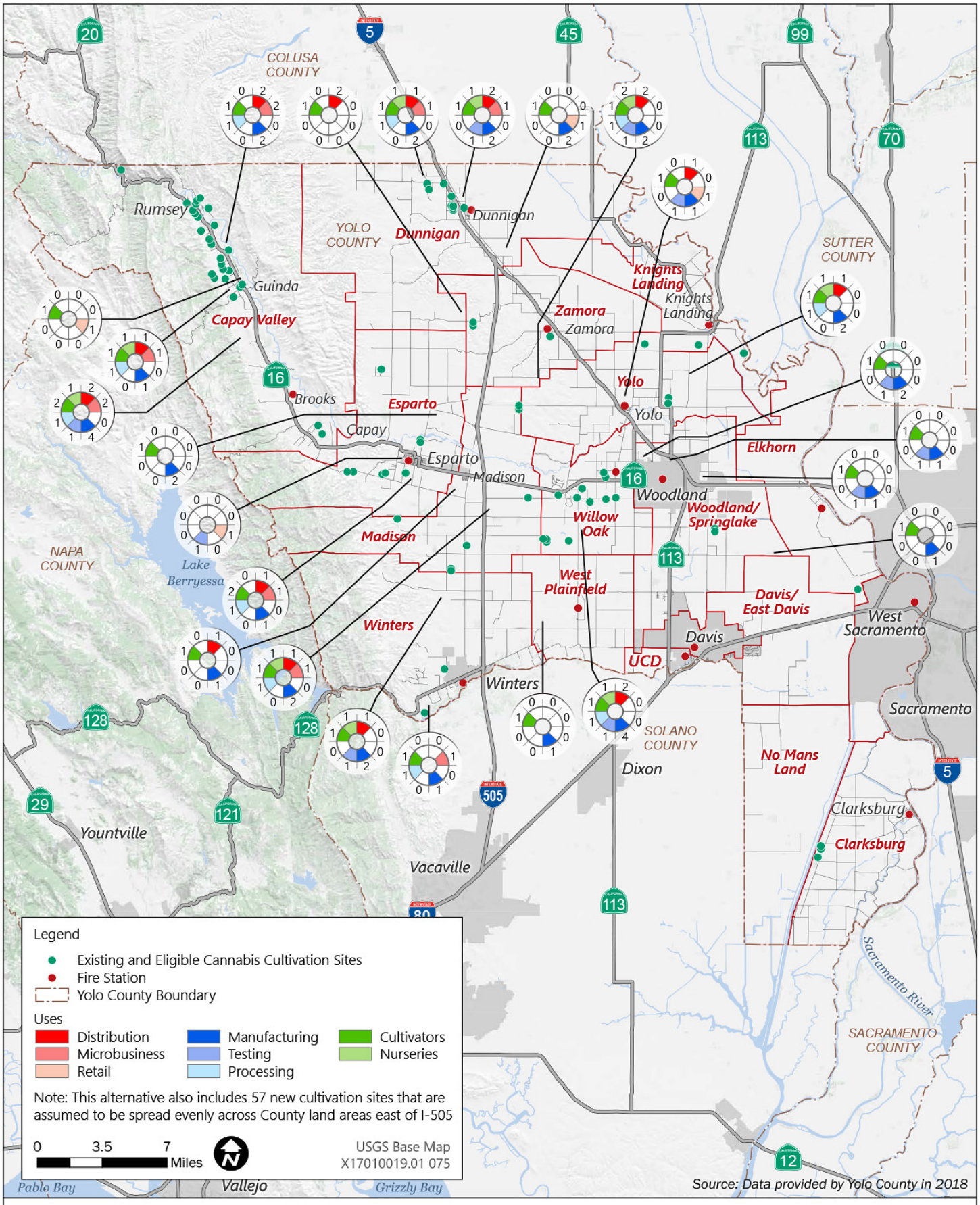


Exhibit 3.13-4 **Alternative 3 Cannabis Uses and Fire Protection Districts**

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 3.13-5, Alternative 4 is assumed to add for analysis purposes 54 new cannabis uses (cultivation and noncultivation) into the following FPDs:

- Capay Valley FPD,
- Dunnigan FPD,
- Willow Oak FPD,
- Esparto FPD,
- Madison FPD,
- Winters FPD,
- Zamora FPD,
- Yolo FPD, and
- Springlake FPD.

This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation.

Compliance with the applicable CLUO performance standards, the California Building Standards Code, the California Fire Code, and state cannabis regulations identified above and in the discussion for Alternative 2 would ensure that fire protection and safety measures are incorporated into the cannabis site designs so that a demand for new fire protection services would be minimized. In addition, as part of the land use permitting process under the CLUO, each individual cannabis project would be evaluated to ensure compliance with the local and state fire protection requirements. This project evaluation would also verify that sufficient response capability exists within the applicable FPD and automatic aid jurisdictions. On-site inspections of each cannabis project would be conducted to ensure compliance with County and state fire protection requirements. Given these provisions, there would be no need for expanded fire protection services that would necessitate the construction of new fire protection facilities (e.g., fire stations).

If a hazardous materials incident was beyond the response capabilities of the local Fire Protection District, the Yolo Operational Area Hazardous Response Team would respond. Nevertheless, there would be a need for training and familiarization of local fire personnel with volatile manufacturing facilities. This could be provided by the facility owners working with the applicable FPDs and would not require new fire protection facilities.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 3.13-6, Alternative 5 is assumed to add for analysis purposes 52 new cannabis uses (cultivation and noncultivation) to the following FPDs:

- Capay Valley FPD,
- Dunnigan FPD,
- Willow Oak FPD,
- Esparto FPD,
- Madison FPD,
- Winters FPD,
- Zamora FPD,
- Yolo FPD, and
- Springlake FPD.

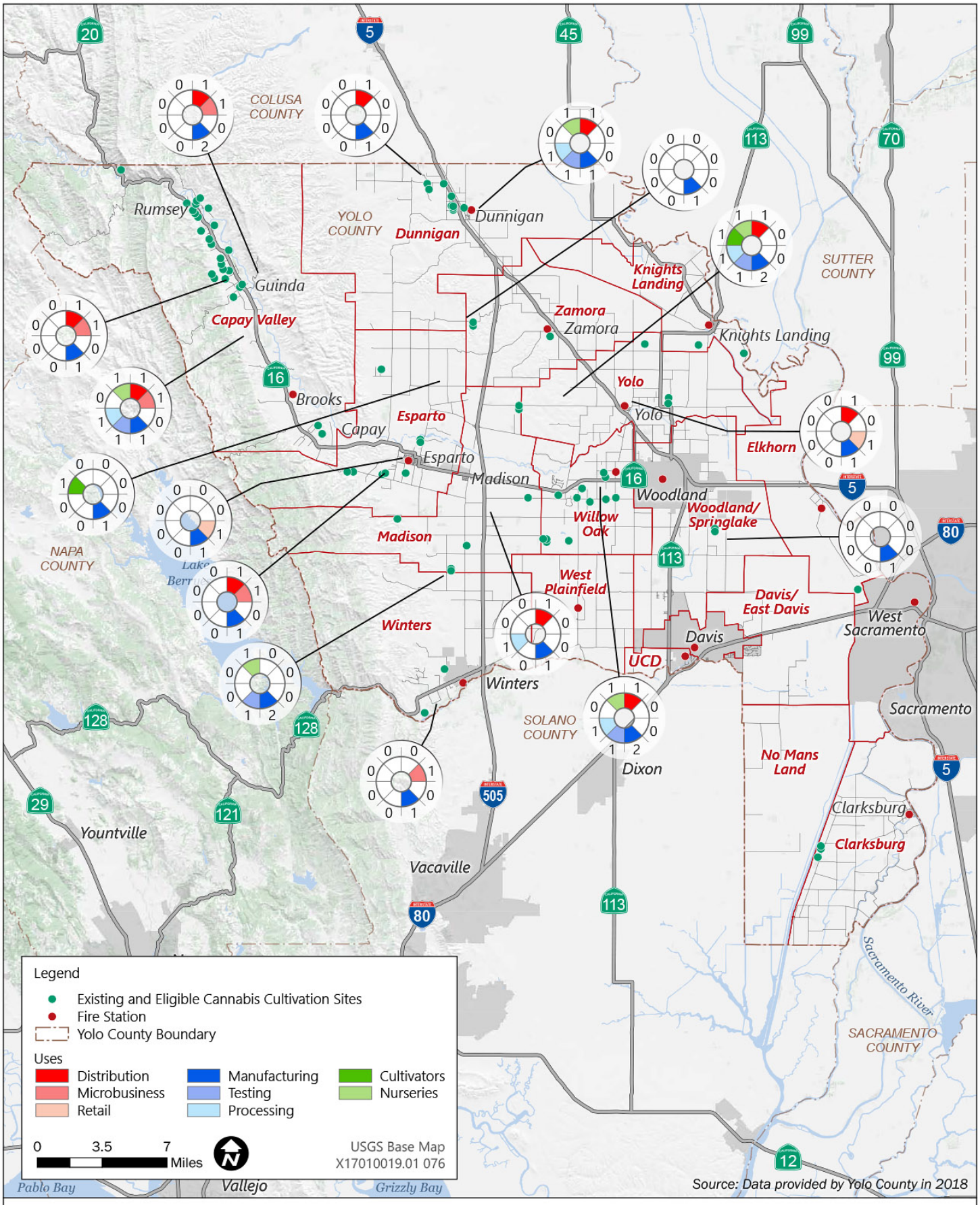


Exhibit 3.13-5 **Alternative 4 Cannabis Uses and Fire Protection Districts**

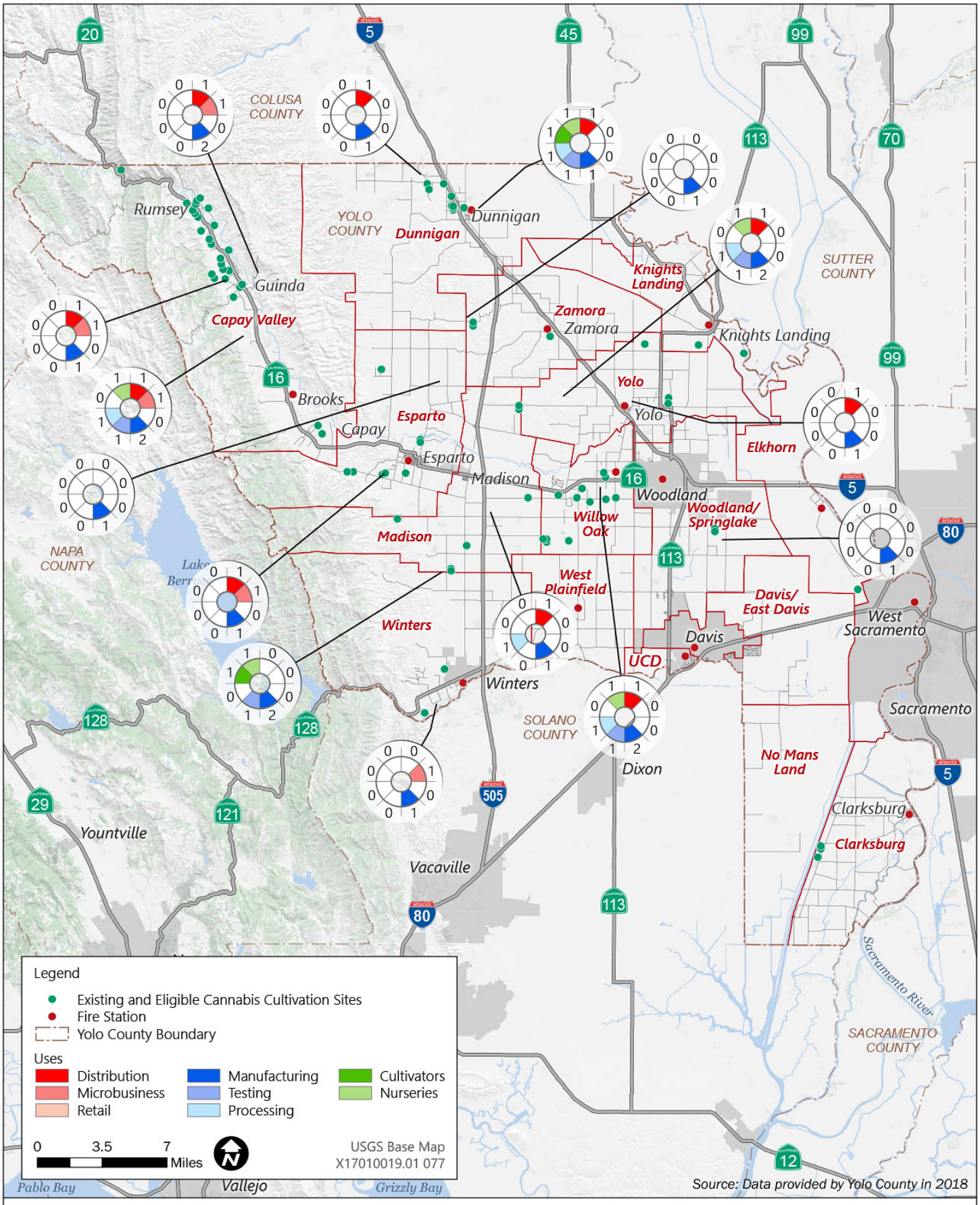


Exhibit 3.13-6 **Alternative 5 Cannabis Uses and Fire Protection Districts**

Compliance with the applicable CLUO performance standards, the California Building Standards Code, the California Fire Code, and state cannabis regulations identified above and in the discussion for Alternative 2 would ensure that fire protection and safety measures are incorporated into the cannabis site designs so that a demand for new fire protection services would be minimized. In addition, as part of the land use permitting process under the CLUO, each individual cannabis project would be evaluated to ensure compliance with the local and state fire protection requirements. This project evaluation would also verify that sufficient response capability exists within the applicable FPD and automatic aid jurisdictions. On-site inspections of each cannabis project would be conducted to ensure compliance with County and state fire protection requirements. Given these provisions, there would be no need for expanded fire protection services that would necessitate the construction of new fire protection facilities (e.g., fire stations).

If a hazardous materials incident was beyond the response capabilities of the local Fire Protection District, the Yolo Operational Area Hazardous Response Team would respond. Nevertheless, there would be a need for training and familiarization of local fire personnel with volatile manufacturing facilities. This could be provided by the facility owners working with the applicable FPDs and would not require new fire protection facilities.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact PS-2: Result in Substantial Adverse Physical Impacts Associated with the Need for New or Physically Altered Law Enforcement Facilities

Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not require increased law enforcement services that would result in the need for new or altered facilities from compliance with the CLUO and state regulations. Potential impacts related to law enforcement services for all alternatives would be **less than significant** for all alternatives.

As stated above in Section 3.13.1, "Environmental Setting," law enforcement protection services are provided by the Yolo County Sheriff's Department. The Sheriff's Office and Cannabis Task Force have received calls regarding illegal cultivation sites and thefts on licensed cannabis cultivation sites. As shown in Table 3.13-4, there were 12 illegal cannabis abatements and 9 thefts at licensed cannabis sites in 2018.

The CLUO provides the following performance standards that address security:

- Section 8-2.1408(LL) requires "a fully functional, operating, site security system with cameras operating 24-hours a day, seven days a week, is a requirement. Permittees shall describe how site and operational security will be addressed specific to the site and use type, including features that may consist of access control, alarms, security personnel, guard dogs, fencing, and building/structural security. All gates, doors, and windows of structures and facilities used for cannabis activities shall be locked/secured. Permittees are responsible to prohibit individuals form loitering on the premises if they are not engaged in activity expressly related to the activity/operations. A security plan shall be provided to the County and shall be treated as confidential by the County pursuant to Section 6255(a) of the CGC. Failure to secure a site pursuant to the security plan may be grounds for revocation."

- Section 8-2.1410(D) requires a 24-hour good neighbor contract, an odor control plan, a security plan, and potentially other as identified by the County.

Permittees would be required to demonstrate compliance with these security measures through site design details under CLUO Section 8-2.1408(OO). These CLUO performance standards would be consistent with General Plan Policy PF-4.4 and Action PF-A25 regarding law enforcement.

Construction of cannabis-related buildings under all of the CLUO alternatives would be required to pay the County Facilities and Services Development Fee at the building permit issuance that would provide funding for facility improvements or new facilities for law enforcement whose timing would be determined by County as part of facilities planning. Pursuant to General Plan Policies PF-12.1 through PF-12.3, the development of these facilities by the County would be conducted in an environmentally sustainable manner (Yolo County 2009:416).

As further described in Section 3.13.2, "Regulatory Setting," state cannabis regulations include the following security requirements for processing, testing, distribution, retail, and microbusinesses:

- Sections 5042 and 5043: standards that limit access to authorized personnel, documentation of authorized individuals, and employee badge requirements.
- Section 5044: requirements for the provision of video surveillance system.
- Section 5045: standards for provision of security personnel.
- Sections 5046 and 5047: requirements for locks for all points of entry and exit and the provision of alarm systems.

State cannabis regulations include the following security requirements for manufacturing uses:

- Section 40200: development and implementation of a security plan that include requirements for a security alarm system and documentation of authorized individuals,
- Section 40205: requirements for the provision of video surveillance system.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way. Given these CLUO requirements and that the personal use outdoor cultivation would be an ancillary use to the developed parcel, no significant law enforcement impacts are expected.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

This alternative assumes the retention of the current extent of cannabis cultivation that is allowed in the County. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. The CLUO performance standards set forth in Section 8-2.1408(LL) and Section 8-2.1410(D) would minimize the potential for criminal activities through implementation of site security system that includes the implementation of access control, security cameras, alarms, security personnel, and fencing at sites.

As identified in Table 3.13-4, there have been cannabis-related crime activities in the County. However, Yolo County has Sheriff officers dedicated solely to crimes related to cannabis. While additional staffing may be required, this should not require construction of additional law enforcement facilities. Compliance with CLUO performance standards measures would ensure that law enforcement and safety measures are incorporated into each site and there would be no need for expanded law enforcement facilities.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Exhibit 2-5 identifies the assumed distribution of new cannabis uses in the County that consists of 54 new cultivation and noncultivation uses (see Table 2-4). Alternative 2 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards in the CLUO (see Table 2-5).

As identified under Alternative 1, there have been cannabis-related crime activities in the County. However, Yolo County has Sheriff officers dedicated solely to crimes related to cannabis. While additional staffing may be required, this should not require construction of additional law enforcement facilities. Compliance with CLUO performance standards measures would ensure that law enforcement and safety measures are incorporated into each site and there would be no need for expanded law enforcement facilities.

Compliance with CLUO performance standards set forth in Section 8-2.1408(LL) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Implementation of these measures would ensure protection of sites that would not require the need to expand law enforcement services and facilities.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 2-6, Alternative 3 assumes 186 new cannabis uses (cultivation and noncultivation) would be generally spread throughout the County though 40 new cannabis uses are assumed to be sited along the SR 16 corridor west of the City of Woodland (see Table 2-4). This alternative is also assumed to result in the relocation of nine of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning requirements under the CLUO (see Table 2-5).

As identified under Alternative 1, there have been cannabis-related crime activities in the County. However, Yolo County has Sheriff officers dedicated solely to crimes related to cannabis. While additional staffing may be required, this should not require construction of additional law enforcement facilities.

Compliance with CLUO performance standards set forth in Section 8-2.1408(LL) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Implementation of these measures would ensure protection of sites that would not require the need to expand law enforcement services and facilities.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Use Types

Exhibit 2-7 identifies the assumed distribution of new cannabis uses in the County. Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses.

As identified under Alternative 1, there have been cannabis-related crime activities in the County. However, Yolo County has Sheriff officers dedicated solely to crimes related to cannabis. While additional staffing may be required, this should not require construction of additional law enforcement facilities.

Compliance with CLUO performance standards set forth in Section 8-2.1408(KK) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Implementation of these measures would ensure protection of sites that would not require the need to expand law enforcement services and facilities.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Exhibit 2-8 identifies the assumed distribution of new cannabis uses in the County that consists of 52 new cultivation and noncultivation uses (see Table 2-4). Alternative 5 is also assumed to result in the relocation of 30 of the 78 existing and eligible cannabis cultivation sites due to compliance with zoning and buffer standards of the CLUO (see Table 2-5).

As identified under Alternative 1, there have been cannabis-related crime activities in the County. However, Yolo County has Sheriff officers dedicated solely to crimes related to cannabis. While additional staffing may be required, this should not require construction of additional law enforcement facilities.

Compliance with CLUO performance standards set forth in Section 8-2.1408(KK) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Implementation of these measures would ensure protection of sites that would not require the need to expand law enforcement services and facilities.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

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3.14 TRANSPORTATION AND CIRCULATION

This section describes the applicable federal, state, and local regulations and policies related to transportation and circulation; discusses the existing roadway network and transportation facilities in the County; describes existing transportation and circulation conditions within the County; and analyzes the potential impacts from implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, on transportation and circulation.

The impact analysis presented in this section is based primarily on the traffic impact analysis (TIA) prepared by KD Anderson & Associates. The TIA is included as Appendix G and provides additional detailed data, modeling, and information related to the transportation and circulation analysis.

Several comment letters pertaining to transportation and circulation were received in response to the notice of preparation. Commenters expressed concern related to potential impacts related to increases in traffic along County Road 89 and County Road 27 associated with cannabis operations. These comments are considered below. Other commenters noted that the speed of traffic and roadway conditions along County Road 49 are of concern as they relate to the potential for increased traffic along this roadway. These issues are not addressed within this section as they are enforcement and maintenance issues, respectively. However, emergency access and hazards due to geometric design are addressed in this section. The reader is referred to Appendix A for comment letters on the Notice of Preparation.

3.14.1 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The environmental setting for transportation includes baseline descriptions for roadway, bicycle, pedestrian, and transit facilities.

The following key sources of data and information were used in the preparation of this section:

- Traffic Impact Analysis for Yolo County Cannabis Ordinance (see Appendix G),
- Yolo County 2030 Countywide General Plan (Yolo County 2009a), and
- Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018).

PROJECT STUDY AREA

The study area was identified based on assumed locations where cannabis activities could occur within the unincorporated area of the County with implementation of the CLUO under each of the five alternatives, and the span of potential project-related impacts beyond that area based on where any potential CEQA impact might occur, including across jurisdictional boundaries. Additionally, identification of the study area included consideration of the project's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes, mode split, and other considerations. The project study area is consistent with the study area developed for the transportation analysis conducted for the Yolo County 2030 Countywide General Plan EIR.

ROADWAY NETWORK

Regionally, the unincorporated portions of Yolo County are served by a roadway network consisting of state highways, streets within incorporated cities, rural arterial roads, rural collector roads, and local rural roads. General descriptions of these roadways and their intended function are provided below.

State Highways

The following state highways in Yolo County include freeways, expressways, and conventional highways that are operated and maintained by the California Department of Transportation (Caltrans):

- State Route (SR) 16,
- SR 45,
- SR 84,
- SR 113, and
- SR 128.

Interstate and U.S. numbered routes are also part of the state highway system and are maintained by Caltrans. Interstate (I-) 80, I-5, and I-505 serve the unincorporated portion of Yolo County. Descriptions of these facilities are listed below:

- I-80 is a principal east/west route in Yolo County serving all of the major population centers within the County including Davis, West Sacramento, Winters and Woodland, and providing connections to the San Francisco Bay Area and Sacramento County. I-80 is a major commute route between residential areas in the greater Sacramento area and the San Francisco Bay Area employment centers and is a major truck route between the San Francisco Bay Area, Sacramento, the Tahoe Basin, and points east. From the Solano County line to the Sacramento County line, I-80 is a six-lane freeway that connects the city of Davis and the city of West Sacramento.

- I-5 is a north/south route in Yolo County and serves as the primary truck route for the transportation of goods. From the Sacramento County line to the Colusa County line, I-5 is a four-lane freeway and provides connections to the city of Woodland and communities of Dunnigan, Zamora, and Yolo.

- I-505 is a north/south freeway which serves as a major connection for goods movement and interregional travel between I-80 near the city of Vacaville and I-5 in the northern part of Yolo County. I-505 is a four-lane freeway from the Solano County line to I-5 and provides a connection to the city of Winters.

- SR 16 serves east-west traffic through the western rural area of Yolo County, including the communities of Rumsey, Guinda, Brooks, Capay, Esparto, Madison, Monument Hills, and the city of Woodland. SR 16 also provides connection to the Cache Creek Casino Resort located near the town of Brooks. North of Rumsey, SR 16 passes through the Cache Creek Regional Park area and is one of the routes used by trucks to access Colusa and Lake Counties. SR 16 extends east as a two-lane conventional highway from the Colusa County line to the Woodland City limits, then north where it connects to I-5.

- SR 113 provides a connection for agricultural and commercial traffic to I-5 and I-80. SR 113 between Davis and Woodland is a four-lane freeway that terminates at I-5. SR 113 continues from I-5 in Woodland as a two-lane conventional highway north to the town of Knights Landing and continues into Sutter County.

- SR 128 serves local traffic in the city of Winters and regional traffic. SR 128 extends as a two-lane conventional highway from the Solano/Napa County line to I-505 in Winters.

Two additional state highways in Yolo County (SR 84 and SR 45) mainly serve local and agricultural traffic within the County. SR 84 (aka Jefferson Blvd) is a two-lane conventional highway that extends from the Solano County line to the West Sacramento City limits providing access to the Clarksburg community. SR 45 is also a two-lane conventional highway that extends from the Colusa County line to Knights Landing.

COUNTY ROADWAYS

The County maintains an extensive roadway system that provides a high level of access compared to the relatively low levels of traffic on most roadways. Currently, the County maintains approximately 800 miles of roadways in the unincorporated areas.

Major County roads are also part of the regional roadway system and typically provide connections to the highway and freeway systems. County Roads 98 and 102 are roadways that are used by motorists traveling between Davis and Woodland. County Road 31 connects the cities of Davis and Winters. Similarly, Old River Road connects the cities of West Sacramento and Woodland.

The Yolo County circulation system includes numerous County-maintained roads that are not included in the General Plan Circulation Element based on their function. These local roads typically have the primary function of providing access to individual properties and are not regularly used for regional circulation. Many local roads do not fully satisfy current Yolo County design standards for travel way/shoulder width, or for vertical/horizontal alignment. Most are 20–22 feet wide with limited shoulders. Local roads typically carry low traffic volumes (i.e., fewer than 500 vehicles per day) but can also provide truck access to individual properties, particularly in agricultural and aggregate mining areas.

Level of Service Thresholds

Level of service (LOS) is a qualitative measure describing traffic operating conditions whereby a letter grade, from LOS A to F, is assigned. These 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. The LOS thresholds for roadways are based on traffic volume thresholds. LOS does not represent the perspective of other roadway users such as pedestrians, bicyclists, or transit users, and therefore, is not the only measure of roadway performance used by the County. The LOS grades for roadways are described in the County General Plan (p. CI-3) as follows (capacity ranges are identified for each LOS; however, the actual capacity of a roadway depends on the roadway type):

- **LOS A** represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver for motorists. LOS A generally represents utilization of less than 30 percent of roadway capacity.

- **LOS B** has stable operating conditions for motorists, but the presence of other vehicles on the road causes a noticeable, though slight, reduction in comfort, convenience and maneuvering freedom for drivers. LOS B generally represents utilization of 30 to 50 percent of roadway capacity.

- **LOS C** has stable operating conditions for motorists, but the operation of individual motorists is substantially affected by the interaction with other vehicles in the traffic stream. LOS C generally represents utilization of 40 to 70 percent of roadway capacity.

- **LOS D** represents high-density but stable flow for motorists, however they will experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience. LOS D generally represents utilization of 60 to 90 percent of roadway capacity.

- **LOS E** represents operating conditions at or near capacity for motorists. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver for motorists is difficult. Unstable operation is frequent and minor disturbances in traffic flow can cause breakdown conditions. LOS E generally represents utilization of 80 to 100 percent of roadway capacity.

- **LOS F** is used to define forced or breakdown conditions for motorists. This condition exists wherever the volume of vehicular traffic demand exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

Analysis of the study area roadway segments was conducted using peak hour volume thresholds consistent with those developed for the Yolo County General Plan EIR and based on the methodology contained in the Highway Capacity Manual. Additionally, the analysis is consistent with the technical approach and protocol established for transportation impact studies and reports in the Yolo County Transportation Impact Study Guidelines (TIS Guidelines) which is based on the current state-of-the-practice in transportation planning and engineering. Table 3.14-1 below presents these volume thresholds.

Table 3.14-1 Operational Class and Peak Hour Level of Service Thresholds

Operational Class	Peak Hour Level-of-Service Capacity Threshold (vehicles per hour)				
	A	B	C	D	E
Minor Two-Lane Highway	90	200	680	1,410	1,740
Major Two-Lane Highway	120	290	790	1,600	2,050
Four-Lane, Multilane Highway [a]	1,070	1,760	2,530	3,280	3,650
Two-Lane Arterial	-	-	970	1,760	1,870
Four-Lane Arterial, Undivided	-	-	1,750	2,740	2,890
Four-Lane Arterial, Divided	-	-	1,920	3,540	3,740
Six-Lane Arterial, Divided	-	-	2,710	5,320	5,600
Eight-Lane Arterial, Divided	-	-	3,720	7,110	7,470
Two Freeway Lanes [a]	1,110	2,010	2,880	3,570	4,010
Two Freeway Lane + Auxiliary Lane [a]	1,410	2,550	3,640	4,490	5,035
Three Freeway Lanes [a]	1,700	3,080	4,400	5,410	6,060
Three Freeway Lanes + Auxiliary Lane [a]	2,010	3,640	5,180	6,350	7,100
Four Freeway Lanes [a]	2,320	4,200	5,950	7,280	8,140

[a] LOS capacity threshold is for one direction.

– LOS is not achievable because of type of facility.

Source: KD Anderson & Associates 2019

Traffic Operations

Roadway segments LOS analysis was conducted as part of the traffic impact analysis for the proposed CLUO prepared by KD Anderson & Associates and is summarized below and included in Appendix G.

The study area roadway segments and associated LOS under existing conditions during the p.m. peak hour are shown in Table 2 in Appendix G. LOS was determined by comparing traffic volumes for the study area roadway segments with peak hour LOS capacity thresholds set forth in General Plan Policy CI-3.1 (see Section 3.14.2, "Regulatory Setting," for further discussion of General Plan circulation policies). The majority of evaluated roadway segments operate at LOS A, B, or C under existing conditions, which represent acceptable operating conditions. However, the three study area roadway segments listed below experience p.m. peak hour volumes that result in unacceptable LOS:

- County Road 102 between Covell Boulevard and County Road 29: LOS D
- County Road 102 between County Road 29 and County Road 27: LOS D
- County Road 102 between County Road 17 and SR 113: LOS D

General Plan Policy CI-3.1(U) and (V) state that once passing lanes and intersection improvements are implemented the resulting LOS threshold would go from LOS C to LOS D for the segments of County Road 102 from Covell Boulevard to County Road 27, and from LOS D to LOS E for the segment from County Road 17 to SR 113. However, funding for these improvements is not certain and these improvements have not been identified in an adopted capital improvement program, therefore, LOS C remains the applicable LOS

threshold. This operation condition is the result of business and other commuter traffic using County Road 102 to travel between the City of Davis and the City of Woodland.

Vehicle Miles Traveled

State CEQA Guidelines Section 15064.3 was added in December 2018, to address the determination of significance for transportation impacts. It directs that a project's effects on automobile delay (such as LOS) may no longer be considered a threshold for project transportation impacts, and further directs that vehicle miles traveled (VMT) is generally the most appropriate measure of transportation impacts. This change is the result of legislation (SB 743) and is intended to change the focus from congestion to, among other things, reduction in greenhouse gas emissions, encouraging mixed use development, and other factors.

Pursuant to CEQA Guidelines Section 15064.3(c) this change in analysis may be implemented now and is mandated to be used beginning July 1, 2020. Because this ordinance will apply to applications received after the date on which VMT is required to be considered, VMT is used as the primary metric for analyzing transportation impacts in this EIR.

VMT is a metric that counts the number of miles traveled by motor vehicles that are generated by or attracted to a project. VMT captures motorized trip generation rates, thereby accounting for the effects of project features and surroundings. It also captures trip length, and so can also account for regional location, which is an important determinant of vehicle travel. A "VMT" is one vehicle traveling on a roadway for one mile. Regardless of how many people are traveling in the vehicle, each vehicle traveling on a roadway generates one VMT for each mile it travels. VMT modeling was conducted for the purposes of this EIR, and VMT is estimated and projected for a typical weekday. Table 3.14-2 presents an estimate of VMT in Yolo County and the Sacramento Area Council of Governments (SACOG) six-county area as a whole between the years of 2005 and 2012.

Table 3.14-2 Average Daily Vehicle Miles Traveled

Year	Yolo County VMT	SACOG Area VMT
2005	5,683,000	54,572,000
2008	5,489,000	53,859,000
2012	5,710,000	55,148,000

Note: VMT = vehicle miles traveled.

Source: KD Anderson & Associates 2019

TRANSIT SYSTEM

The Yolo County Transportation District operates YOLOBUS, which offers local fixed routes within Woodland and West Sacramento and intercity routes serving Davis, West Sacramento, Winters, Woodland, downtown Sacramento, Sacramento International Airport, Capay, Dunnigan, Esparto, Madison, Yolo, Knights Landing, Vacaville, and Cache Creek Casino.

The district also operates the following curb-to-curb dial-a-ride services:

- local service for persons with disabilities in Woodland;
- local service and to medical appointments in Sacramento for West Sacramento seniors and persons with disabilities; and
- intercity service between the communities of Winters, Woodland, Davis, West Sacramento, Sacramento International Airport, and downtown Sacramento.

Davis Community Transit operates origin-to-destination Dial-a-Ride service for persons with disabilities within the city of Davis.

Commercial bus service is provided by Greyhound through limited service bus stops in Davis and Woodland. These limited service bus stops provide connections to full-service stations located in the San Francisco Bay Area and the greater Sacramento area. Amtrak also provides commercial bus service at the downtown Davis train station. There are no Greyhound bus stops within the unincorporated portions of Yolo County.

Yolo Commute provides ridesharing information and programs that operate within Yolo County and to/from surrounding areas. Additionally, Yolo County has four park-and-ride facilities: three along I-80 (in West Sacramento and Davis) and one near I-505 in the city of Winters.

Passenger Rail

Amtrak offers daily round-trip train service from the downtown Davis train station to the San Francisco Bay Area and to downtown Sacramento. Trains that stop in Davis include the Coast Starlight (one daily round trip), California Zephyr (one daily round trip), and the Capitol Corridor (15 weekday round trips and 11 weekend round trips). The Capitol Corridor Joint Powers Authority is an intercity passenger train system that provides service between San Jose, Oakland/San Francisco, and Sacramento/Placer County along a 170-mile rail corridor, including stops in Davis.

Freight Rail

Yolo County is served by three freight railways including Union Pacific Railroad, Sierra Northern Railroad, and California Northern. The Union Pacific operates a railroad line connecting Davis to West Sacramento and provides services within the Port of Sacramento. The Sierra Northern Railroad operates a railroad line that runs from West Sacramento to Woodland (approximately 16 miles long) known as the Sacramento River Train. California Northern operates a 110-mile-long railroad line that runs from the city of Davis in Yolo County to the town of Tehama near Red Bluff.

EXISTING BIKE AND PEDESTRIAN FACILITIES

The bicycle and pedestrian transportation system in Yolo County is composed of local and regional bikeways and trails. Yolo County provides favorable bicycling conditions due to its flat terrain, mild climate, and relatively short distance between cities. In addition, the city of Davis and University of California, Davis, have an extensive network of bicycle facilities with good connections to the County bicycle network.

Bikeways are classified into the following three types:

- Class I – off-street bike paths,
- Class II – on-street bike lanes marked by pavement striping, and
- Class III – on-street bike routes that share the road with motorized vehicles.

The following five major bikeways exist within the unincorporated areas of Yolo County:

- Class I path along I-80 and Russell Boulevard, and Class II bike lanes along County Road 32A;
- Class II bike lanes along County Road 102 from Knights Landing to eastern Woodland and on to nearby Davis;
- Class II bike lane along County Road 99 from the southern City limit of Woodland south to County Road 29, then east 1 mile to County Road 99D, then south on County Road 99D to the city of Davis;

- Class II bike lane along County Road 31, County Road 93A and Russell Boulevard between Davis and Winters; and

- Class I bike path along County Road 32 west from Davis to County Road 95A.

Additionally, the County has developed a Parks and Open Space Master Plan (Yolo County 2006) that includes descriptions and resources of hiking trails within the unincorporated parts of the County. The County also has an additional evolving system of trails along Lowe Cache Creek associated with the Cache Creek Area Plan. On April 9, 2019, the Board of Supervisors accepted the Cache Creek Parkway Plan Open Space Inventory and Baseline Improvements document released December 2018.

3.14.2 Regulatory Setting

FEDERAL

There are no federal laws or regulations addressing transportation and circulation that are relevant to the project.

STATE

California Department of Transportation Concept Reports

Caltrans has completed transportation concept reports (TCRs) or route concept reports for I-5, I-80, I-505, SR 16, SR 45, SR 84, SR 113, and SR 128. These reports identify long-range improvements and establish the concept, or desired LOS for specific corridor segments. These reports identify long-range improvements needed to adequately serve 20-year traffic forecasts. Additionally, the reports identify the ultimate design concept for conditions beyond the immediate 20-year design period.

Interstate 5 Transportation Concept Report

The I-5 TCR (Caltrans 2017a) identifies the 20-year concept (through 2035) for the corridor as maintaining the existing four-lane freeway from the Yolo/Sacramento County line to the Yolo/Colusa County line. Future improvements within the horizon period consist of maintenance and roadside safety projects and includes a bridge vertical clearance project at County Road 103. In the "ultimate facility," construction of bus/carpool lanes from the Sacramento County line to SR 113 and Intelligent Transportation System elements (e.g., ramp meters, variable messaging signs) are proposed. Caltrans has established an ultimate concept of LOS D for I-5 from the Sacramento County line to County Road 102, LOS E from County Road 102 to SR 113, LOS D/E from SR 113 to I-505 and LOS D north of SR 505 through Yolo County.

Interstate 80 Transportation Concept Report

The I-80 TCR (Caltrans 2017b) identifies the 20-year concept and ultimate facility for the corridor as widening the existing six lanes through Yolo County (including the Yolo Causeway) to include high-occupancy vehicle lanes in both directions. The concept also includes increasing transit service and implementing traffic operation systems such as ramp metering and changeable message signs along the corridor. Caltrans has established a concept of LOS E for I-80 through Yolo County. In addition to the concept report, a Corridor System Management Plan focuses on the integrated management of travel modes and roadways to facilitate the efficient and effective mobility of people and goods within California's most congested transportation corridors. This document identifies the addition of high-occupancy vehicle lanes between Mace Boulevard (in Davis) and Enterprise Drive (in West Sacramento) along I-80 in both directions.

Interstate 505 Transportation Concept Report

The I-505 TCR (Caltrans 2017c) identifies the 20-year concept and ultimate facility for I-505 as maintaining the existing four-lane freeway.

State Route 16 Transportation Corridor Concept Report

The SR 16 Transportation Corridor Concept Report (Caltrans 2012a) identifies the 20-year concept and ultimate facility for SR 16 as maintaining the existing two-lane conventional highway with the addition of passing lanes, left-turn lanes, and bicycle facilities in some sections where feasible. The segment of SR 16 from County Road 21A to I-505 has a two-lane concept. Caltrans has established a concept of LOS D for SR 16 between the Yolo/Colusa County line and County Road 85B, and LOS E from County Road 85B to I-5.

State Route 45 Transportation Concept Report

The SR 45 TCR (Caltrans 2014a) contains the 20-year improvement concept for SR 45. Through Yolo County the concept is LOS D. The concept and ultimate facility would maintain the existing two-lane roadway.

State Route 84 Transportation Corridor Concept Report

The SR 84 Transportation Corridor Concept Report (Caltrans 2012b) contains the 20-year improvement concept for SR 84. The ultimate concept is LOS D, and no improvements other than routine maintenance are planned for this route.

State Route 113 Transportation Concept Report

The SR 113 TCR (Caltrans 2014b) contains the 20-year improvement concept for SR 113. The concept facility for the section between I-80 and I-5 is to maintain the existing four-lane freeway. North of I-5 the concept facility remains a two-lane conventional highway. The ultimate concept LOS from the Solano County line to I-5 is LOS E, while north of I-5 the concept is LOS D.

Draft State Route 128 Transportation Concept Report

The Draft SR 128 TCR (Caltrans 2017d) contains the 20-year improvement concept for SR 128. The concept facility for the roadway is to maintain the existing two-lane highway. The 20-year concept LOS from the Solano County line to County Road 87E is LOS D, while the concept from County Road 87E to the I-5 is LOS E.

California Department of Transportation Statewide Transportation Improvement Program

The California Statewide Transportation Improvement Program (STIP) is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, and metropolitan plans. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations and Regional Transportation Planning Agencies. The STIP contains all capital and noncapital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the U.S. Code.

California Department of Transportation Interregional Transportation Improvement Program

Caltrans's 5-year Interregional Transportation Improvement Program is prepared pursuant to Government Code 14526, Streets and Highways Code Section 164, and the California Transportation Commission's STIP Guidelines. Regional agencies work with Caltrans to identify projects that will address improvements to the interregional transportation system and improve the movement of people, vehicles, and goods between regions.

REGIONAL

Sacramento Area Council of Governments

SACOG is an association that includes the Counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba, as well as 22 cities, including the Cities of Davis, West Sacramento, Winters, and Woodland. As a metropolitan transportation organization, SACOG is required to prepare a long-range transportation plan for all modes of transportation—including public transit, automobile, bicycles, and pedestrians—every 4 years for the six-county area.

Metropolitan Transportation Plan/Sustainable Communities Strategy

SACOG is responsible for the preparation of, and updates to, the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation

Improvement Program (MTIP) for the six-county Sacramento region (SACOG 2016). In response to this requirement, SACOG completed the MTP/SCS 2035. The purpose of the MTP/SCS 2035 is to establish regional access and identify mobility goals; identify present and future transportation needs, deficiencies, and constraints within the transportation system; analyze potential solutions; estimate available funding; and propose investments. On February 18, 2015, the SACOG Board of Directors adopted the 2016 update to the MTP/SCS. The draft proposed 2020 MTP/SCS and related Draft EIR were released late September 2019 and are scheduled for adoption no later than February 2020.

The Congestion Management Process (CMP) and MTP/SCS are developed as a single integrated document. As part of the MTP/SCS, SACOG's CMP addresses the six-county Sacramento region and the transportation network therein. The CMP focuses on travel corridors with significant congestion and critical access and mobility needs to identify projects and strategies that meet CMP objectives.

Transportation projects are nominated by local agencies and analyzed against community priorities identified through public outreach as well as technical performance and financial constraints. The output of the MTP and CMP is a list of projects with identified lead agencies and completion years, contained in Appendix A-1 of the MTP/SCS. The adopted list and schedule of projects for the MTP/SCS then informs the development of the MTIP, described in more detail below.

Metropolitan Transportation Improvement Program

SACOG, the federally designated metropolitan planning organization for the region, prepares and adopts the MTIP approximately every 2 years. The MTIP is a short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. SACOG adopted the 2019/20 MTIP in September 2018 (SACOG 2018). The 2019/20 MTIP covers 4 years of programming: federal fiscal years 2019–2022. The project listing (Appendix G) provides a detailed description for each individual project in the 2019/20 MTIP, including those for Yolo County.

Regional Bicycle, Pedestrian and Trails Master Plan

SACOG approved the *Regional Bicycle, Pedestrian, and Trails Master Plan* in April 2015. It envisions a complete transportation system that supports healthy living and active communities where bicycling and walking are viable and popular travel choices in a comprehensive, safe, and convenient network. The *Regional Bicycle, Pedestrian, and Trails Master Plan* is intended to guide the long-term decisions for the Bicycle and Pedestrian Funding Program. The projects included in this plan are regionally significant projects that require at least partial regional funding. This plan is not funding-constrained, so it contains at least 20 years' worth of projects. As part of a Master Plan update in spring 2018, SACOG finalized an update to the planned and existing bikeway networks for use in the Project Performance Assessment data tool, a tool developed by SACOG to be used to analyze transportation investments at the project level.

LOCAL

Yolo County 2030 Countywide General Plan

The vision for Yolo County as set forth in the General Plan is to remain an area of active and productive farmland and open space where both traditional and innovative agricultural practices will continue to flourish in the countryside, while accommodating the recreational and tourism needs of residents and visitors (Yolo County 2009a). The Vision and Principles section of the General Plan contains principles and objectives related to transportation and relevant to the project. A summary of these policies is provided below.

- **Principle 1**: The success of Yolo County depends upon the success of agriculture.
    - **Objective 1.3**: Safe and efficient transportation system for moving products from farm to market.
- **Principle 5**: The safest and most efficient way to move goods and people is through a variety of transportation alternatives.

- **Objective 5.10:** Efficient and safe circulation for agricultural equipment.

- **Objective 5.11**: Efficient and safe routes to markets for transporting agricultural goods.

The Circulation Element of the General Plan contains various policies related to transportation potentially relevant to the project. A summary of these policies is provided below. It is noted that some policies directly address a VMT threshold; however, these policies apply to development of new planned communities, most of which have been removed from the General Plan, and although the policies remain, they are not directly applicable because they specifically apply within specific plan areas.

- **Policy CI-1.3**: Reduce the total vehicle miles of travel (VMT) per household by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of "smart growth" and sustainable planning principles.

- **Policy CI-2.2**: Encourage employers (including the County) to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking for carpools/vanpools.

- **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 planned capacity of the County's roadways.

  Bullets A. through W. under this policy identify and detail additional LOS standards that apply to specific roadway segments within the County.

  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-3.18**: Ensure adequate access for emergency vehicles.

- **Policy CI-3.20:** Achievement of the VMT threshold shall be measured based on the build-out of the plan area phases using a travel demand forecasting model that is sensitive to built environment variables including but not limited to the 4Ds (density, diversity, design, and destination).

- **Policy CI-3.21:** Other Specific Plan areas allowed under the General Plan shall strive to achieve the VMT threshold of 44 miles generated per household per weekday to the extent feasible, using the same methods described above.

- **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.

- **Policy CI-3.6:** Incorporate the concept of "complete" streets1 which requires more complete consideration of all users of the street. Develop roadway cross-sections for community and rural areas, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip and sidewalk width. In general it is intended that roadway cross-sections in the county be as narrow as possible (particularly in community areas) while still meeting recommended safety standards, the requirements of the General Plan, and the needs of users.

- **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-3.11:** 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-4.2:** Support regional air quality and greenhouse gas objectives through effective management of the county's transportation system.

Yolo County Bicycle Transportation Plan

The purpose of the *Yolo County Bicycle Transportation Plan* approved in March 2013 is to formulate a long-range, comprehensive, and consistent policy guide for achieving a countywide bikeway network, and list current priorities for bicycle facility development. The plan sets forth goals and policies for bicycle facilities in the unincorporated County in response to identified needs. The plan provides a viable system of bike routes that when constructed will encourage and promote more bicycle riding. Because of the uncertainty of funding, this plan does not contain funding or construction schedules. Specific policies and suggested actions are described and routes are prioritized as guides for future action. This plan has been reviewed for consistency with bicycle planning documents prepared by the Cities of Davis, West Sacramento, Winters, and Woodland; Solano County; and the City and County of Sacramento. Specific policies and suggested, actions are described, and routes are prioritized as guides for future action.

County of Yolo Transportation Impact Study Guidelines

The Yolo County TIS Guidelines have been developed to provide a clear and consistent technical approach to transportation impact analysis for projects within Yolo County's jurisdiction and establishes protocol for transportation impact studies and reports based on the current state-of-the-practice in transportation planning and engineering (Yolo County 2010). Individual projects under the CLUO would be required to demonstrate consistency with the Yolo County TIS Guidelines.

In general, a TIS is required when any one of the following conditions is met:

- The project has the potential to create a significant environmental impact under CEQA.

- The proposed project has the potential to generate 100 new passenger vehicle trips per day or an equivalent number of truck trips.

- The project requires a permit application, which is subject to discretionary approval.
- The project would substantially alter physical or operational conditions on a County roadway, bikeway, sidewalk, or other transportation facility.

3.14.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

This transportation impact analysis considers existing transportation facilities and operations as documented in Section 3.14.1, "Environmental Setting" and traffic impact analysis provided in Appendix G. The analysis uses General Plan policies related to County transportation systems and agricultural uses. The analysis also evaluates whether implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, could result in increased transportation impacts.

Consistency with General Plan Circulation Policies Methodology

The evaluation of potential impacts related to transportation is based on a review of existing transportation facilities and conditions, anticipated future facilities, and transportation-related plans and policies relevant to implementation of the CLUO and permitted future cannabis uses. Due to the countywide scope of the CLUO and because the exact locations of all future commercial cannabis operations are not known at this time, the analysis does not evaluate specific intersections. The traffic operations addresses roadway segments representative of the County's overall transportation network and whether implementation of the CLUO under the assumed extent of cannabis uses for EIR analysis purposes under the five alternatives would conflict with General Plan circulation policies, including roadway capacity. The segments analyzed for the purpose of this analysis were developed for the Yolo County General Plan EIR based on a series of links with common physical and traffic conditions. Details regarding the traffic operations is provided in Appendix G.

VMT Significance Threshold Methodology

State CEQA Guidelines Section 15064.3

State CEQA Guidelines Section 15064.3, added to address the requirements SB 743, is intended to change the focus from congestion to, among other things, reduction in greenhouse gas emissions, encouraging mixed use development, and other factors.

State CEQA Guidelines Section 15064.3(b) identifies four criteria for analyzing the transportation impacts of a project. To determine how the CLUO should be considered, each of the criteria is discussed below:

- Section 15064.3(b)(1) addresses land use projects. The proposed project is a new ordinance regulating cannabis activities and operations within unincorporated Yolo County. The proposed CLUO would establish a use permit process for cannabis which would not apply to other agricultural crops in Yolo County. The proposed project does not involve a conversion to other land uses as presumed to be envisioned by this section of the CEQA Guidelines but rather would apply to otherwise allowed land uses (e.g., agriculture, retail sales, manufacturing) that would involve cannabis. Section 15064.3(b)(1) describes that projects with specified proximity to "major" or "high quality" transit should be presumed to cause a less than significant transportation impact. The unincorporated area of Yolo County does not have transit service that meets these criteria and therefore this presumption would not apply to projects regulated under the CLUO. This section does not apply to the proposed CLUO. This section describes that projects which would decrease VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect. Future individual projects seeking Cannabis Use Permits pursuant to the CLUO may be subject to this criterion (as described below).

- Section 15064.3(b)(2) addresses Transportation Projects. The proposed project is a set of proposed land use regulations for all cannabis activities and operations within unincorporated Yolo County. As such it does not fall within this category of "transportation projects." This section does not apply.

- Section 15064.3(b)(3), Qualitative Analysis, explains that there may be conditions under which a qualitative rather than quantitative analysis of VMT is appropriate. Table 9 of Appendix G attempts to provide quantified estimates of VMT associated with implementation of the CLUO. As described in the VMT quantification methodology discussion below, SACSIM and CalEEMod models cannot accurately measure VMT for this project and therefore a qualitative analysis was conducted. Because a quantitative method was found to be infeasible this EIR relies on a qualitative analysis of VMT.

- Section 15064.3(b)(4), Methodology, explains that the County has discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

In support of CEQA Guidelines Section 15064.3, OPR has issued a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The OPR Technical Advisory outlines recommended procedures and methods for evaluating transportation impacts for residential, office, and retail projects. However, it does not offer guidance for a programmatic project like the subject CLUO which would implement a new set of proposed land use regulations for cannabis activities and operations within unincorporated Yolo County. Residential, office, and retail land uses, which are the focus of the OPR Technical Advisory, are governed by the General Plan (Yolo County 2009a) with which the CLUO is consistent, and County Zoning Regulations, within which the CLUO would be incorporated.

The OPR Technical Advisory notes by way of background (page 2) that there are three primary ways of reducing GHG emissions for the transportation sector: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. Local jurisdictions are not able to influence or control the first two, but through careful land use planning local governments can ensure reductions in vehicle travel. The OPR Technical Advisory highlights the relationship between reduction of VMT and reduction of GHG emissions, which is a key component of SB 743.

Additionally, the OPR Technical Advisory notes that some local agencies have developed screening thresholds to indicate when detailed analysis is needed and includes recommendations related to VMT screening thresholds for small projects. The OPR Technical Advisory states that absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with an SCS or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR 2018). This EIR is a programmatic EIR that looks at the combined effect of assumed future cannabis operations under the CLUO; thus, this EIR does not rely on this screening threshold. It is noted that the Yolo County TIS Guidelines state that a proposed project that has the potential to generate 100 new passenger vehicle trips per day or an equivalent number of truck trips would require a project-specific transportation impact study. Therefore, any individual projects under the CLUO that would not require a project-specific transportation impact study based on requirements within the Yolo County Transportation Impact Study Guidelines would also be assumed in project-level CEQA documents, using OPR guidance, to result in a less than significant VMT impact.

Thus, taking into consideration the four criteria detailed in Section 15064.3(b) for analyzing the transportation impacts and their applicability to the CLUO, state policy, and the recommendations of the OPR Technical Advisory, the following threshold was determined as conservative but appropriate for the purpose of analyzing the potential for change in VMT under each CLUO alternative:

- An increase in countywide VMT as compared to existing conditions shall be presumed to result in a significant effect.

VMT Quantification Efforts

The following describes the evaluation process used to determine whether a transportation model could be used to accurately quantify changes in VMT from the assumed extent of cannabis uses identified in the CLUO alternatives evaluated in the EIR. As further described below, the SACOG SACSIM travel demand model and CalEEMod model were rejected due to concerns regarding accuracy.

SACSIM Model

Modeling and analysis of VMT under the CLUO and the associated alternatives herein examine the net effect of the CLUO in terms of total daily VMT (i.e., VMT associated with full buildout of each alternative). Thus, the analysis looks at the combined effect on total daily VMT under each alternative, and accounts for changes to travel patterns resulting from the new employment opportunities created by cannabis uses assumed under the five CLUO alternatives. Change in employment associated with the CLUO is used to assess the transportation-related effects of the CLUO because employment is the primary trip generating unit used by the SACSIM model to estimate VMT for the industrial and retail land use categories.

The OPR Technical Advisory presents various metrics for analyzing VMT, including total VMT, VMT per capita, and VMT per employee. The VMT per capita/per employee metrics are most applicable to projects that involve a single site and a single type of land use. However, the CLUO alternatives assume multiple sites and multiple types of land uses. Thus, total VMT is performance metric used in this EIR because it more accurately captures the totality of the effect of the various cannabis uses assumed under the CLUO alternatives on VMT.

CEQA Guidelines Section 15144 addressing forecasting states that while foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can. Within the study area the current version of the SACOG SACSIM travel demand model is recognized as the best available tool for accounting for all aspects of travel associated with various land uses. The model takes into consideration the following factors:

- land use intensity,
- land use location,
- interaction between land uses throughout the model area, and
- quality of access to the roadway network.

The SACSIM model addresses travel within the six-county area composed of Yolo, Sacramento, Placer, El Dorado, Yuba, and Sutter Counties. Although the SACSIM model's inventory of land uses does not include agricultural employment (i.e., the land use that would most closely approximate the trip generation and VMT of cannabis uses associated with cultivation), it does include industrial uses. Similar to agricultural land uses, the travel patterns associated with the industrial land use category would account for employee commute travel but would also reflect regional deliveries of materials and products. Due to the relatively similar travel characteristics between agricultural and industrial land uses, the trip generation characteristics of industrial land uses were applied to cultivation operations and nursery facilities for the purposes of this analysis. Additionally, the SACSIM industrial land use type was assigned to the processing, manufacturing, testing, and distribution facilities under the CLUO. The SACSIM retail land use category was assigned to the retail cannabis uses under the CLUO, and a combination of the SACSIM industrial and retail land use categories (i.e., two-thirds industrial and one-third retail) was assigned to the CLUO micro business land uses.

The SACSIM travel demand model forecasts the amount of travel by estimating vehicle trips between geographic units. These geographic units include traffic analysis zones (TAZs). The size of TAZs vary from model to model and area to area. However, to provide a general idea of the size of TAZs in the SACSIM model, approximately 30 TAZs are used to characterize the Davis area. The model estimates the mix of land use types within each TAZ in a model area, and this land use data is then used to estimate the number of trips to and from each TAZ. The origin of trips from each TAZ in the model are matched with a destination in other TAZs and the travel between all TAZs is calculated to estimate VMT.

While most existing and eligible cannabis cultivation sites would remain in their current locations, some of the existing sites are assumed to relocate to comply with zoning and buffering standards under CLUO (depending on the alternative). However, due to the size of the TAZs built in to the SACSIM travel demand model, it is assumed that any existing cannabis cultivation site that would potentially be relocated would move to a location within the same TAZ. Therefore, based on this assumption and the method by which the SACSIM travel demand model estimates VMT, the relocation of existing cannabis cultivation sites would not affect the calculated VMT estimates.

Travel Outside of SACOG Region

The OPR Technical Advisory states that lead agencies should not truncate any VMT analysis because of jurisdictional or other boundaries, for example, by failing to count the portion of a trip that falls outside the jurisdiction or by discounting the VMT from a trip that crosses a jurisdictional boundary (OPR 2018). For this reason, where methodologies exist to estimate the full extent of VMT from a project, they should be applied.

Because the SACSIM model does not account for travel outside of its six-county area in its VMT calculation, off-model adjustments were made to the SACSIM model outputs for each alternative to ensure that the VMT was not truncated as described above. The off-model adjustments were based on census data and characteristics for employee travel generated by Yolo County. It was assumed that each alternative's net effect on total VMT outside of the SACSIM area would be 34 percent of the effect of each alternative on internal VMT. For additional details related to VMT quantification methods see Appendix G.

Model Limitations

Travel forecasting models (such as the SACSIM model) generally use residential land uses to estimate the number vehicle trips, and nonresidential land uses to estimate where the trips would go. Additionally, as noted above, the SACSIM model does not include the agricultural land use or employment category; therefore, it is not designed to directly analyze the effects of new agricultural land uses and the associated increase employment on VMT. As a result, the land use employment categories detailed above (i.e., industrial and retail) were used as representative land uses to analyze the cannabis operations and nursery facilities allowed under the CLUO in order to attempt to quantify changes in VMT. Although the industrial and retail land uses are those within the SACSIM model that would most closely approximate the trip generation and VMT of cannabis operations and nursery facilities, they are forecasting tools that do not precisely capture the trip generation, distribution, and assignment characteristics of cannabis operations allowed under the CLUO.

SACSIM was used to model the net VMT change under each of the alternatives. Detailed VMT modeling details and results are provided in Table 9 of Appendix G. While the modeling did identify changes in VMT, results were nominal and were within the typical forecasting errors of these model types. Further the SACSIM model is not designed to factor the proximity of cannabis cultivation and noncultivation uses that are assumed in the EIR analysis for alternatives 2 through 5. The provision of a range of cultivation and noncultivation operations within the unincorporated area of the County would reduce VMT generated as compared to traveling to cities and/or outside the County for commercial nurseries, testing, manufacturing, and retail uses. Due to the limitations of the SACSIM model as detailed above, and in the absence of relevant studies and data, the SACSIM model cannot accurately measure VMT for this project.

CalEEMod

The OPR Technical Advisory identifies sketch models such as CalEEMod as potential tools that could be used to estimate VMT. CalEEMod calculates VMT by simply multiplying the number of trips generated by individual land uses by trip length. The default trip generation rates used by the program are ITE Trip Generation rates, and trip lengths are based on data supplied by the air districts or an average trip length for the state as a whole.

The specific cannabis use types that could be developed under the CLUO (i.e., commercial nurseries, processing, distribution, testing, manufacturing, microbusiness, and retail uses) are not contained within the ITE Trip Generation Manual. Similar to the concerns described above for the SACSIM model, cannabis uses could potentially be assigned to land uses contained within the ITE Trip Generation Manual with similar travel characteristics. However, using proxy land uses would not precisely capture the unique trip generation

characteristics of cannabis uses. The application of a regional or state average trip lengths would not necessarily capture the trip length characteristics cannabis uses.

Also, CalEEMod does not factor the proximity of cannabis cultivation and noncultivation uses that are assumed in alternatives 2 through 5. As explained above for the SACSIM model, the potential provision of a range of cultivation and noncultivation use within the unincorporated area of the County is expected reduce VMT generated as compared to traveling to cities and/or outside the County for cannabis supporting uses (e.g., commercial nurseries, processing, distribution, testing, manufacturing, microbusiness, and retail uses). Because CalEEMod does not account for how mutually supportive land use relationships would affect trip generation or length, and in the absence of relevant studies and data, using CalEEMod to model VMT would not provide an accurate estimate for this project.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines, the General Plan, the County Transportation Impact Study Guidelines, and professional judgment. The following identifies the significance criteria used to assess impacts on the transportation and circulation system from implementation of the project.

General Plan Consistency

Impacts on the roadway system would be significant if the project would:

- conflict with a program, plan, ordinance, or policy addressing the circulation system.

VMT

As described above, impacts on VMT would be significant if the project would:

- conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision(b).

As described in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO would not result in the conflicts with bicycle, pedestrian, and transit transportation systems; would not create transportation safety hazards; and would not adversely affect emergency access. Therefore, these impact issue areas are not further evaluated.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County

IMPACT ANALYSIS

Impact TRANS-1: Conflict with Program, Plan, Ordinance or Policy Addressing the Circulation System

Adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO could result in additional traffic on County roadways. This increase in traffic and use of County transportation facilities would not conflict with the General Plan transportation policies. This impact would be **less than significant** for all alternatives.

A stated objective of the General Plan is to combine minimum efficient urbanization with the preservation of productive farm resources and open space amenities (Yolo County 2009a). Yolo County is dedicated to protecting and enhancing its rich agricultural soils and farming economy by directing residential growth to established cities and rural communities. Specific overarching principles and objectives within the General Plan strive to emphasize the provision of efficient transportation system for agricultural uses, and safe and efficient circulation for the agricultural equipment and goods. Thus, the intent of the General Plan and its

associated principles, objectives, and policies related to transportation in the County is to focus growth in the existing incorporated cities and towns in order to preserve roadway capacity along the County roadway network to ensure the efficient transportation of agricultural goods and equipment.

The Circulation Element of General Plan establishes LOS policies for roadways and intersections in the unincorporated portion of Yolo County. Changes in traffic operations associated with the implementation of the CLUO, based on the assumptions associated with each of the five project alternatives is shown in Section 3.14.1, "Environmental Setting," and contained in Table 6 of Appendix G. The roadway segment LOS analysis applies County LOS standards as described in the General Plan Policy CI-3.1. Additional modeling assumptions, calculations, and analysis for each of the alternatives is provided in Appendix G.

As shown in Table 6 in Appendix G, assumed cannabis uses under CLUO alternatives 2 through 5 would add traffic to three segments of County Road 102 (between Covell Boulevard to SR 113) that exceeds the identified General Plan thresholds for these segments under existing conditions. In addition, cannabis uses under Alternative 3 would add traffic on County Road 98 (County Road 24 to State Route 16) and County Road 102 (County Road 27 to Gibson Road) that exceeds the identified General Plan thresholds for these segments under existing conditions. County Road 98 and 102 are used extensively by business and other commuter traffic traveling between the City of Davis and the City of Woodland. Despite the County's stated intentions that capacity on these roadways be retained for agricultural uses, the vast majority of the operational LOS capacity of these specific roadway segments is utilized under existing conditions by business and commuter traffic passing through the unincorporated area. In response to the potential for conditions such as this, Policy CI-3.1 allows exceptions to identified LOS thresholds for agricultural uses. These exceptions, described further below, are applicable to cannabis uses. The effect of these exceptions is that agricultural use of these roadways does not constitute an adverse impact. Further discussion is provided below.

As described, an important function of the County roadway network is to provide for the efficient transport of agricultural goods and equipment as detailed in the General Plan. Policy CI-3.1 of the General Plan states that the goal of the service thresholds is to balance the preservation of community and rural values with a safe and efficient circulation system, and that LOS thresholds are intended to limit the planned capacity of the County's roadways (Yolo County 2009a). The LOS standards and policies are in place, among other purposes, to retain adequate roadway capacity for agricultural purposes. Policy CI-3.1 (X) of the General Plan states that exceptions to the LOS thresholds may be allowed in such circumstances that may include but are not limited to preserving agriculture or open space land, enhancing the agricultural economy, and preserving the rural character of the County. Cannabis is defined by the state and is proposed to be defined in the CLUO as an agricultural land use that would be subject to the agriculturally-focused "exceptions" of Policy CI-3.1(X).

The following CLUO requirements promote the reduction of vehicle travel consistent with General Plan CI-1.3 and CI-2.2.

- Section 8-2.1408(N) Employee Services: Permittees shall comply with applicable labor standards including parking, toilets, drinking water, safety stations, shading, and hand-washing stations. Employee housing (temporary and/or permanent), including for on-site security, must have all necessary services (e.g. approved systems for the provision of water and treatment of wastewater) and required approvals. The provision of employee housing without required permits/approvals is grounds for revocation or suspension of the use permit. Permittees shall encourage employee ride-sharing and encourage employees to minimize trips.

- Section 8-2.1408(JJ) Roadways: In accordance with the County's adopted policies and standards cannabis operators are strongly encouraged to take affirmative measures to combine trips, reduce greenhouse gas emissions, and minimize vehicle miles traveled. Policy CI-3.1 of the Circulation Element of the County General Plan identifies level of service policies intended to retain capacity on rural roads for agricultural uses, which includes cannabis cultivation.

> If triggered by conditions identified in the Yolo Transportation Impact Study Guidelines, e.g. 100 new trips or more, applicants will prepare a traffic assessment for consideration as part of their use CUP application. In situations where a project would substantially and adversely alter physical or operational conditions on a County roadway beyond the planned condition anticipated in the adopted General Plan, roadway improvements (e.g. safety improvements) or other circulation improvements will be required as appropriate.
>
> The permittee shall install/undertake appropriate roadway improvements identified by the County Engineer or District Fire Chief as appropriate, for County roads, or Caltrans and District Fire Chief for State roads, to adequately resolve identified concerns in a manner consistent with adopted standards and requirements as applied to other similar uses.

The following CLUO Sections 8-2.1408(K) (below) and 8-2.1408(JJ) (described above) would ensure adequate emergency access consistent with Policy CI-3.18.

> Driveway approaches to County and State maintained roads shall be per current County Improvement Standards or Caltrans requirements, as applicable. An encroachment permit may be required. Controlled access entries must provide a rapid entry system (e.g. Knox Box approved by the local Fire District or fire service provider) for use by emergency personnel and provide adequate space for vehicles to access the lock without impeding the right-of-way. A County assigned street address is a requirement. The address must be posted and adhere to display requirements of the Fire Code. Permittees must demonstrate safe and adequate driveway access to the satisfaction of the County or Caltrans, as applicable, in compliance with applicable standards. Access considerations identified in Section 8-1.802 of the County Code shall apply. *(For the convenience of the reader these include: will the proposed use have access characteristics different from other permitted land uses; does the proposed access have inadequate design; will emergency vehicle access be impaired; would the proposed access adversely affect safe operations on the adjoining roadway system; are site distance, visibility, proximity to parking, drainage, turning radius, angle of intersection, vertical alignment, and pavement condition adequate for the proposed use and consistent/equitable in relation to access requirements for other permitted uses; proximity to other driveways and intersections; other relevant circumstances identified by the County).* Driveways shall have an all-weather surface, such as compacted gravel.

Thus, implementation of the CLUO under any of the alternatives would not conflict with the transportation related objectives, goals, and policies of the General Plan.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel, no significant vehicle travel to support the cultivation is expected.

This impact would be **less than significant** for all alternatives.

Impact TRANS-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)

As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). Construction and operation of commercial cannabis sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would generate vehicle trips. Alternative 1 would result in no increase in project-generated net VMT over existing conditions and therefore would have **no impact.** The implementation of Alternative 2, Alternative 3, Alternative 4, and Alternative 5 would result in no net increases in cumulative VMT; therefore, the impact would be **less than significant.**

Implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO assumed for analysis purposes would create new agriculturally-related opportunities. While most existing and eligible cannabis cultivation sites would remain in their current locations, some of the existing or eligible cultivation sites assumed to be required to relocate to comply with zoning and/or buffering standards under CLUO (nine sites under alternatives 1, 3, and 4 and 30 sites under alternatives 2 and 5). As detailed above, it is assumed that any cannabis cultivation sites that would potentially be relocated under the alternatives would be moved to nearby locations; therefore, the relocation would not result in any change in VMT.

As identified in Table 2-4, alternatives 2 through 5 would expand existing cannabis uses in the County to include new cultivation sites as well as noncultivation uses (commercial nurseries, processing, distribution, testing, manufacturing, microbusiness, and retail uses) that would support the cultivation of cannabis. Cannabis is defined by the state and is proposed to be defined in the CLUO as an agricultural land use. Cannabis uses proposed under the CLUO are consistent with planned land use activities and growth under the General Plan as well as the agricultural, industrial, and commercial zoning in the County. The General Plan EIR concluded that General Plan planned population and employment growth would result in significant and unavoidable impacts related to the increase in VMT (Yolo County 2009b). Implementation of the CLUO would not alter the impact conclusions of the General Plan EIR.

The following CLUO sections address transportation measures to reduce VMT:

- Section 8-2.1408(N): Employee Services: Permittees shall comply with applicable labor standards including parking, toilets, drinking water, safety stations, shading, and hand-washing stations. Employee housing (temporary and/or permanent), including for on-site security, must have all necessary services (e.g. approved systems for the provision of water and treatment of wastewater) and required approvals. The provision of employee housing without required permits/approvals is grounds for revocation or suspension of the use permit. Permittees shall encourage employee ride-sharing and encourage employees to minimize trips.

- Section 8-2.1408(JJ): Roadways: In accordance with the County's adopted policies and standards cannabis operators are strongly encouraged to take affirmative measures to combine trips, reduce greenhouse gas emissions, and minimize vehicle miles traveled. Policy CI-3.1 of the Circulation Element of the County General Plan identifies level of service policies intended to retain capacity on rural roads for agricultural uses, which includes cannabis cultivation.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor cultivation would be an ancillary use to the residential parcel, no significant vehicle travel to support the cultivation is expected that would affect VMT.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

No new cannabis uses would be developed under Alternative 1; thus, there would be no increase in project-generated traffic or VMT above existing conditions. As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). Therefore, **no impact** on VMT would occur under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Implementation of Alternative 2 is assumed to result in the addition of new cannabis noncultivation facilities (i.e., processing, manufacturing, testing, and distribution facilities) within the County. The placement of such facilities in the unincorporated area of the County near existing and future cultivation uses would allow

cultivators to avoid transporting cannabis to more distant locations where these facilities currently exist (e.g., existing testing facilities are located in the cities of Davis and Sacramento). Therefore, allowing for noncultivation facilities to be located in close proximity to cultivation operations could potentially reduce VMT under Alternative 2. Additionally, many of the sites where cannabis operations could occur are currently occupied by VMT-generating land uses (i.e., agricultural, industrial, commercial). Implementation of Alternative 2 is not expected to alter the existing land use traffic generation of the sites in a manner that could substantially change VMT base conditions because cannabis uses operate similar to agricultural, industrial, and commercial zoned land uses. All cannabis uses would be subject to the requirements of CLUO Section 8-2.1408(N) and 8-2.1408(JJ) that include vehicle trip reduction measures.

Thus, implementation of Alterative 2 is not expected result in a net increase in countywide VMT beyond what was evaluated in the General Plan EIR. As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

Like Alternative 2, Alternative 3 is assumed to result in the addition of noncultivation facilities (i.e., processing, manufacturing, testing, distribution, retail sales, and microbusiness facilities) within the County, which is currently devoid of any such facilities. The placement of such facilities in the unincorporated area of the County near existing and future cultivation uses would allow cultivators to avoid transporting cannabis to more distant locations where these facilities currently exist (e.g., existing testing facilities are located in the cities of Davis and Sacramento). Therefore, allowing for noncultivation facilities to be located in close proximity to cultivation operations could potentially reduce VMT, as well as through compliance with the requirements of CLUO Section 8-2.1408(N) and 8-2.1408(JJ) that include vehicle trip reduction measures.

Thus, implementation of Alterative 3 is not expected result in a net increase in countywide VMT beyond what was evaluated in the General Plan EIR. As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Like Alternative 2, Alternative 4 is assumed to result in the addition of noncultivation facilities (i.e., processing, manufacturing, testing, distribution, retail sales, and microbusiness facilities) within the County, which is currently devoid of any such facilities. The placement of such facilities in the unincorporated area of the County near existing and future cultivation uses would allow cultivators to avoid transporting cannabis to more distant locations where these facilities currently exist (e.g., existing testing facilities are located in the cities of Davis and Sacramento). Therefore, allowing for noncultivation facilities to be located in close proximity to cultivation operations could potentially reduce VMT, as well as through compliance with the requirements of CLUO Section 8-2.1408(N) and 8-2.1408(JJ) that include vehicle trip reduction measures.

Thus, implementation of Alterative 4 is not expected result in a net increase in countywide VMT beyond what was evaluated in the General Plan EIR. As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Like Alternative 2, Alternative 5 is assumed to result in the addition of noncultivation facilities (i.e., processing, manufacturing, testing, distribution, and microbusiness facilities) within the County, which is currently devoid of any such facilities. The placement of such facilities in the unincorporated area of the County near existing and future cultivation uses would allow cultivators to avoid transporting cannabis to more distant locations where these facilities currently exist (e.g., existing testing facilities are located in the cities of Davis and Sacramento). Therefore, allowing for noncultivation facilities to be located in close

proximity to cultivation operations could potentially reduce VMT, as well as through compliance with the requirements of CLUO Section 8-2.1408(N) and 8-2.1408(JJ) that include vehicle trip reduction measures.

Thus, implementation of Alterative 5 is not expected result in a net increase in countywide VMT beyond what was evaluated in the General Plan EIR. As described in subsection 3.14.3 under VMT Significance Threshold Methodology, implementation of the proposed CLUO, including subsequent Cannabis Use Permits approved pursuant to the adopted CLUO, would not conflict or be inconsistent with CEQA Guidelines 15064.3(b). This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

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3.15 UTILITIES AND SERVICE SYSTEMS

This section provides an overview of stormwater drainage, wastewater (sewage/septic), water, natural gas, electricity capacity, telecommunications, and solid waste services in Yolo County and a discussion of how adoption and implementation of the proposed CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO would affect capacity and ability to provide these services. Comments received in response to the NOP pertained to groundwater supplies and surface water impacts on surface water flows. These issues are considered in Section 3.4, "Biological Resources," and Section 3.10, "Hydrology and Water Quality."

Stormwater, flooding, and groundwater water resources are addressed in Section 3.10, "Hydrology and Water Quality." Section 3.6, "Energy," contains additional information related to efficient use of electricity and natural gas in Yolo County.

In response to circulation of the NOP, comment letters included one from Pacific Gas and Electric Company (PG&E), which provided requirements for projects near gas and electric facilities and procedures for requesting service. These issues are considered below. The reader is referred to Appendix A for NOP comments.

3.15.1 Environmental Setting

The environmental setting conditions identified below are based on available information on utility services (wastewater, water supply, solid waste, drainage, energy facilities, and telecommunications) that include the following primary sources:

- 2014 and 2015 Municipal Service Review and Sphere of Influence Studies for service providers prepared by the Yolo Local Agency Formation Commission (LAFCo),
- CalRecycle 2019 data on the Yolo County Central Landfill,
- City of Woodland 2035 General Plan and Climate Action Plan (CAP) Draft EIR, and
- Yolo County 2030 Countywide General Plan Draft EIR.

WASTEWATER SERVICE

Wastewater (sewage/septic) collection and treatment systems in the County varies by jurisdiction. In general, wastewater treatment in Yolo County is provided by three types of treatment systems: (1) wastewater treatment plants (WWTP), (2) on-site wastewater treatment systems (OWTSs), and (3) community wastewater treatment systems.

The Cities of Davis, Winters, and Woodland each have municipal WWTPs that treat wastewater generated in their respective cities. The cities of Davis and Woodland WWTPs provide tertiary treatment, and the City of Winters WWTP provides secondary treatment. These municipal systems are not available to serve development in the unincorporated parts of the County unless the areas are within the sphere of influence of the cities and annexation is anticipated. For example, the Davis WWTP also serves the unincorporated communities of El Macero, Willowbank, North Davis Meadows, Jury Industrial, and Royal Oaks because these areas are within the City of Davis sphere of influence. Similarly, Woodland serves some of the developed areas within the North Woodland community area.

In addition, two municipal wastewater treatment systems serve portions of the unincorporated County. El Rio Villa is served by the City of Winters, and portions of North Woodland are served by the City of Woodland. The Yocha Dehe Wintun Nation Cache Creek resort has its own WWTP providing tertiary treatment of wastewater. The University of California, Davis, operates a WWTP that provides tertiary wastewater treatment to the campus and discharges effluent to Putah Creek.

Within the unincorporated areas of the County, some of the unincorporated communities use community wastewater systems (Exhibit 3.15-1 depicts the service areas these community service districts [CSDs]):

- **Esparto CSD**. Esparto CSD provides wastewater collection and treatment services to the community of Esparto. The wastewater is collected through a system of vitrified clay pipe mains, which range in diameter from 4 to 12 inches. The collection system flows by gravity to a system of 10 facultative treatment ponds located on the eastern side of Esparto. A pump station is located at the headworks to the treatment ponds and is pumped into ponds by a submersible pump lift station equipped with two 500-gallon-per-minute (gpm) submersible pumps. The CSD owns 90 acres of land, which are intended to be used for treatment ponds or other treatment and disposal facilities. However, the actual useable area is approximately 75 acres containing 10 ponds totaling 42.7 acres (Yolo LAFCo 2015).

  Esparto CSD's current collection and treatment systems have the capacity to meet flow generation of current development, plus an additional 10- to 15-percent increase in flow (Yolo LAFCo 2015).

- **Knights Landing CSD**. The Knights Landing CSD owns and operates the wastewater collection and treatment system that serves the residents of Knights Landing. Wastewater is conveyed to the treatment facilities through a collection system consisting of 4-inch-diameter service laterals; 6-, 8-, and 10-inch-diameter vitrified clay pipe mains; 12-inch-diameter trunk sewer; a sewer lift station; and an emergency alarm at the lift station. Once it reaches the collection system, wastewater drains by gravity to the treatment facility, which consists of 10 facultive ponds and a spreading area that serves as an emergency holding area during heavy flooding (Yolo LAFCo 2014a).

  The existing wastewater system has the capacity to meet the current need and could also accommodate some additional flow. However, the system is subject to issues with infiltration of ground water and inflow of storm water in the collection system, which can place additional burden on the system. (Yolo LAFCo 2014a).

- **Madison CSD**. Madison CSD provides wastewater collection and treatment services for the community of Madison. The existing collection system, consisting of 6-inch and 8-inch vitrified clay pipe, flows by gravity to a treatment pond system. The treatment system consists of four facultive ponds located on a 14-acre property, and a submersible pump lift station with a 120-gpm pump and a 4-inch-diameter discharge line (Yolo LAFCo 2015).

  Madison CSD's wastewater system has the capacity to serve the current demand and additional infill development in the area (Yolo LAFCo 2015).

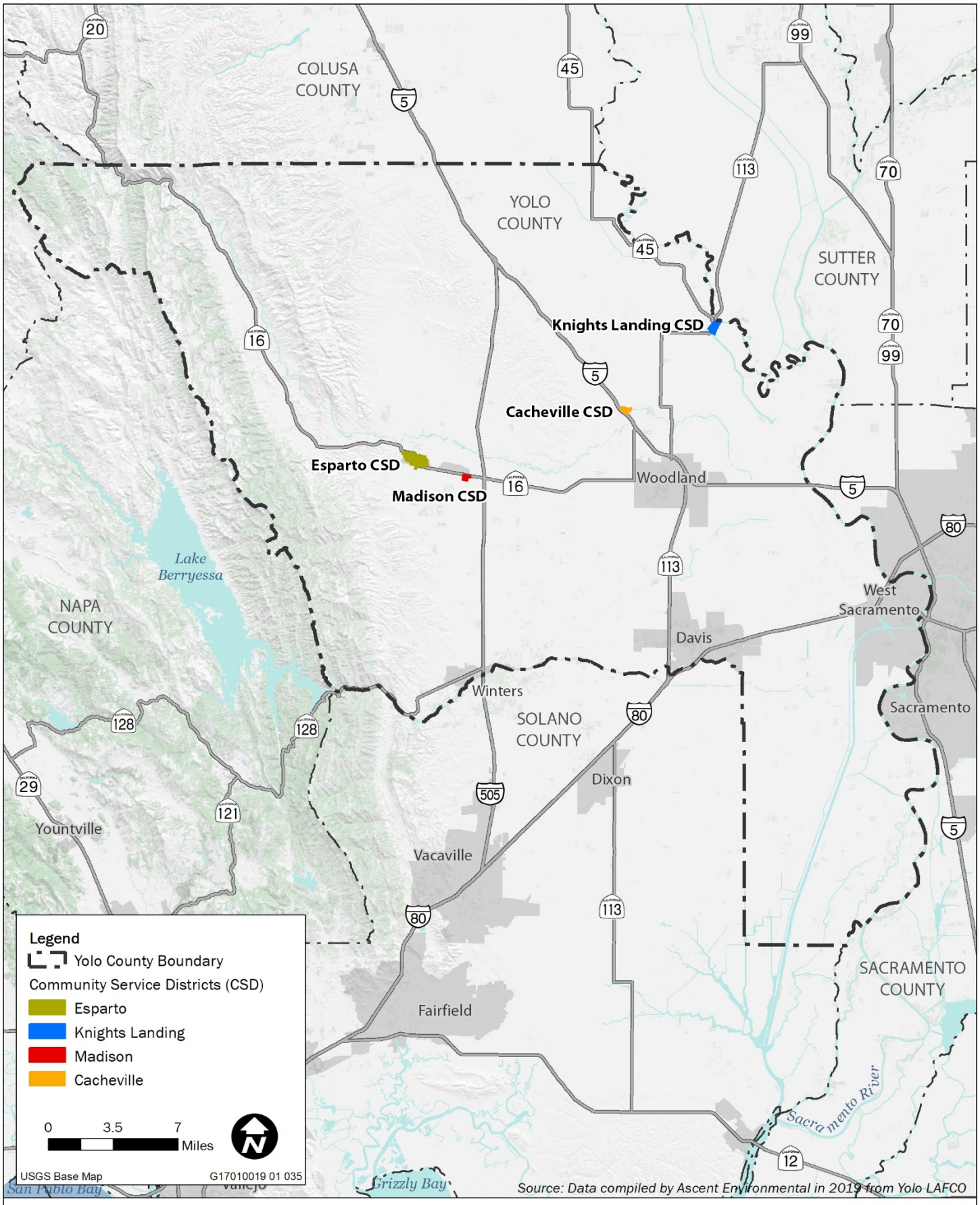


Exhibit 3.15-1 **Community Service Districts**

PUBLIC WATER SUPPLY SERVICES

Potable water supply for the unincorporated area of the County is provided through private wells, small public water systems, and groundwater service from CSDs. The reader is referred to Section 3.10, "Hydrology and Water Quality," for a detailed description of irrigation supplies associated with surface water and groundwater sources in the County.

Community Services Districts

The following discussion is a summary of CSDs and water districts that provide public water service for agricultural and rural portions of the County near existing cannabis cultivation sites:

- **Esparto CSD**. The Esparto CSD owns, operates, and maintains the water system servicing the community of Esparto. The system's infrastructure includes four wells, a 500,000-gallon storage tank, a booster pump station, and two tanks connected to the distribution system of 4-inch- and 6-inch-diameter pipes. the combined capacity of the CSD's three wells is 1,432 gallons per minute (gpm). A capacity of 1,432 gpm is not adequate to deliver the state- mandated 1,500 gpm and 2,500 gpm commercial fire flow requirements. However, due to recent improvements, the system likely meets both domestic supply needs and fire flow requirements (Yolo LAFCo 2015).

- **Knights Landing CSD.** The Knights Landing CSD owns, operates and maintains the water system serving the community of Knights Landing. The system's infrastructure includes three wells (the School Yard/Railroad Street Well [Well 3], Ridge Cut Well [Well 4], and Third Street Well [Well 5]); 4-, 6-, and 8-inch-diameter pipes; and a back-up generator at Well 3. Well 3 has a capacity of 500 gpm, Well 4 has a capacity of 1,000 gpm and Well 5 has a capacity of 1,500 gpm. The District's water system has the capacity to meet the community's existing water supply needs (Yolo LAFCo 2014a).

- **Madison CSD.** The Madison CSD provides domestic water services to the community of Madison and seasonably to the residents of the Madison Migrant Center. The water system consists primarily of 6-inch-diameter pipes. The System has three wells (Park Wells 1, 2, and 3). Park Well 3 is the primary well with a production rate of 500 gpm. Park Well 1 is used as the back-up well with a production rate of 450 gpm. Park Well 2 is considered an emergency back-up well due to sand infiltration problems and is only capable of approximately 110 gpm. The water system is considered to be adequate (Yolo LAFCo 2015).

- **Cacheville CSD**. The Cacheville CSD provides domestic water services to residents in the town of Yolo through a community groundwater system that was constructed in the 1970. The water systems infrastructure includes two wells; 4-inch- and 6-inch-diameter pipes; pump; and two 5,000-gallon tanks. The primary well (Washinton Well) has a capacity of approximately 1,000 gpm, and the backup well (Sacramento Street Well) has a capacity of 100 gpm. While the existing water system has capacity to meet current domestic water demands, it would require new facilities to provide water service for new development in the area (Yolo LAFCo 2014b).

Small Community Service and Transient Community Water Service Providers

There are numerous other small community and transient community water service providers within Yolo County. The following water service providers serve approximately 15 residential service connections all year round, and 25 nonresidential transient service connections. They use groundwater as their source of drinking water (Yolo County 2018a: Appendix C):

- Campers Inn - RV & Golf Course
- North Davis Meadows
- Monroe/Leinberger Center
- Wild Wings Golf Community
- Woodland-Davis Clean Water Agency

The following water service providers serve approximately 25 nonresidential service connections at least 60 days per year. They use groundwater as their source of drinking water:

- Americas Best Value Inn
- Road Trip Bar & Grill
- Bogle Family Limited Partner
- Casa Ruiz
- Holland Market
- St Joseph's Church
- Yolo Bypass Wildlife Area
- Yolo Fruit Stand - Water
- Mumma (Thomas) Well
- California Motel
- Caltrans-Dunnigan Rest Area
- Dunnigan Express
- Jack in The Box #3465
- River Garden Farms #1
- Club Pheasant
- Elkhorn Saloon
- SacWest RV Park & Campground
- Sacramento Yacht Club
- Fast & Easy Mart #54 - Water
- Canyon Creek Resort
- Inn at Park Winters
- Pacific Coast Producers
- Plainfield Station
- Yolo Sportsmen's Association
- La Amistad
- First Baptist Church
- Cache Creek Canyon-Middle Site
- Mountain Valley Golf Center
- Ceja-Reyes Inc
- Capay Open Space Park
- United Travel Plaza
- Dunnigan Chevron
- Grassland Park Host Well (Old Yolo Bowmen Well)
- Elkhorn Regional Park
- Fraternal Order of Eagles #2345
- Kentucky Avenue Industrial
- Sherwood Harbor Marina
- Farmer's Market
- Stan's Yolo Marina
- Nelson's Grove
- Clarksburg Community Church
- Zamora Shell & Mini Mart
- West Valley Baptist Church C- 12
- Jehovah's Witnesses - Kingdom Hall
- Jehovah's Witnesses - Southport
- Jehovah's Witnesses - Davis
- Satiety Winery
- Brannigan's Turkey Farm
- Faye Properties Inc
- Vega's Water System
- Wild Wings Wastewater Recycling Facility
- Cache Creek Resort

The following water service providers serve approximately 26 nonresidential service connections at least 6 months per year. They use groundwater as their source of drinking water:

- Old Sugar Mill Winery
- Clarksburg Middle School
- Delta High School
- Harris Moran Seed Company - Water
- Davis Migrant Center
- Teichert Construction
- Pilot Travel Center #168 - Water
- Davis Joint Unified School District - Fairfield School
- Plainfield Elem School - Water
- Yolo Fliers Club
- Migrant Head Start Program - Water
- Yolo County Airport
- Crew Wine Company
- Dollar General Store #16171
- Clark Pacific – County Road 18C
- Syngenta Seeds Inc
- Unitarian Church of Davis
- Yolo County Central Landfill - Water
- Grace Valley Christian Center
- Seminis Vegetable Seed
- Pavestone
- Pioneer Hi-Bred International

SOLID WASTE DISPOSAL

Solid waste disposal services in the County are provided by the Yolo County Division of Integrated Waste Management, which contracts to haulers to provide curbside pickup of solid waste and recyclable for residents and businesses (Waste Management Inc. and Recology Davis). Businesses that generate 4 cubic yards of more of organic waste must also arrange for organic waste recycling services.

Table 3.15-1 provides an overview of the Yolo County Central Landfill.

Table 3.15-1 Active Solid Waste Facilities in Yolo County

Facility Name	Facility Type	Maximum Permitted Throughput	Remaining Capacity	Estimated Closure Date	Waste Types
Yolo County Central Landfill	Solid Waste Disposal	1,800 tons/day	35, 171,142 cubic yards	1/1/2081	Tires, Sludge (BioSolids), Construction/demolition, Mixed municipal, Agricultural

Source: CalRecycle 2019

Cannabis Disposal Procedures at Yolo County Central Landfill

The Yolo County Department of Integrated Waste Management has prepared internal procedures for the disposal of waste generated from cannabis operations (Yolo County 2018b). The procedures allow for cannabis disposal at the Yolo County Central Landfill with the following information: (1) A copy of the driver's license/photo ID of the disposer and (2) Completion of a "Cannabis Acceptance Form." Cannabis waste is not currently accepted at the green waste facility (see list of facilities at Yolo County Landfill above in Table 3.15-1).

Items considered to be hazardous waste must set up a hazardous waste appointment through the Conditionally Exempt Small Quantity Generator business program. Various items related to cannabis operations are considered to be hazardous waste, including (Yolo County 2018b):

Cultivators:

- Growth media – coconut husk or inorganic matrix
- Nonsalable plant material
- Fertilizers; pesticides; other agricultural chemicals
- Grow lamps – fluorescent and HID
- Lamp ballasts
- Electronic equipment from lighting and irrigation control
- Activated carbon from odor control systems

Processors/Manufacturers:

- Butane canisters/cylinders
- Solvents used in extractions, such as alcohols
- Filter media contaminated with solvents, cannabis residuals
- Nonsalable plant material left over after extraction
- Personal protective equipment, including gloves contaminated with residual materials

Laboratory:

- Solvents
- Extraction Residuals (filters, plant or product that has undergone extraction containing solvents or cannabis residuals)
- Samples, both unprocessed and post-extraction/analysis

Franchised waste haulers (Waste Management Inc. and Recology Davis) may haul organic cannabis waste to the Yolo County Landfill in source-separated loads only, following similar record-keeping procedures as described above for self-haulers.

STORMWATER DRAINAGE FACILITIES

Drainage facilities in the unincorporated portions of the County are limited and primarily consist of roadside open drainage ditches that discharge to canals and other surface water features. The Esparto CSD and Madison CSD do maintain stormwater drainage facilities in the developed portions of their service areas. These facilities include curbs and gutters, stormwater pipeline networks, and detention basins (Yolo County 2009). Stormwater drainage facilities consisting of pipelines and irrigation canals along the Sacramento River are maintained by Reclamation District 999 and 730. The reader is referred to Section 3.10, "Hydrology and Water Quality," for further discussion of surface water and drainage conditions in the County.

ENERGY FACILITIES

Electrical and natural gas infrastructure in the County consists of electrical transmission lines (60 kilovolt [kV], 115 kV, 230 kV, and 500 kV], substations, and natural gas transmission pipelines maintained by PG&E (Yolo County 2009: Figure IV.H-5). Propane tanks are also used on individual parcels in areas of the County where natural gas service is not available. The reader is referred to Section 3.6, "Energy," for a further discussion of energy use in the state and County.

TELECOMMUNICATIONS

Telephone services in Yolo County are provided by AT&T. The residential broadband market in unincorporated Yolo is served by multiple wireline providers including AT&T of California, Comcast, Omsoft, Frontier, and Verizon, in addition to a few resellers of wireline providers in the area. Fixed wireless providers also have coverage in unincorporated Yolo including AFES, Winters Broadband, and DigitalPath. There is more penetration of satellite and 3G/4G mobile wireless broadband in unincorporated Yolo due to its rural geography and lack of wireline infrastructure. In more rural parts of the County, such as agricultural areas, internet services are generally limited to wireless technologies (3G and 4G) (Magellan Advisors 2015).

3.15.2 Regulatory Setting

The following polices and regulations are focused on utility services. The reader is referred to Section 3.6, "Energy," and Section 3.10, "Hydrology and Water Quality," for additional policies and regulations regarding energy use and water resources.

FEDERAL

Clean Water Act

Since 1972 the Clean Water Act (CWA) has regulated the discharge of pollutants to navigable waters. Since 1973 California has been delegated the National Pollutant Discharge Elimination System (NPDES) permit program from the U.S. Environmental Protection Agency and thus prepares and issues the permits. NPDES permits contain effluent limitations that prescribe the level of pollutants allowed in the discharge. These limits are based on either technology-based limits or water-quality based limits. Technology-based limits require that the best available technology be used for the removal of pollutants. Water-quality based limits are those limits that are more stringent than technology-based limits and are applied when necessary to achieve water quality standards as set by a basin plan's beneficial uses and water quality objectives.

Permits can be issued for individual discharges or as a "general" permit for a class or group of discharges. Permits are issued for a five-year period and must be reviewed and reissued every five years. Facilities are also classified as either "major" or "minor" facilities depending on the volume and/or type of pollutants discharged.

NPDES permits establish specific requirements for discharges from municipal and industrial sources and affect how sanitary and industrial wastewater is handled. Individual permits are established for publicly-owned treatment works (POTWs). Industrial facilities that discharge wastewater to a municipal sewer system are covered under the NPDES pretreatment program. Industrial facilities that discharge wastewater directly to a surface water require an individual or general NPDES permit.

Industrial facilities that discharge to sanitary sewer systems of larger agencies are required to pre-treat their wastes so that they approximate the strength of domestic sewage. Sewer agencies are required to have a pre-treatment program that monitors these industrial dischargers. The Water Boards audit this pre-treatment program to ensure compliance with the regulations.

Discharges to surface water that are not covered under the CWA may be regulated in California by Waste Discharge Requirements as authorized in applicable statutes. This occurs when the surface water is a water of the State and is not under federal jurisdiction or the discharge type is exempted in the CWA, such as agricultural drainage. Other special cases exist as well for discharges of storm water, pesticides, wastes from concentrated animal feeding operations, and wastes from vessels.

STATE

The reader is also referred to Section 3.10, "Hydrology and Water Quality," for a further description of water resources policies and regulations.

Cannabis Licensing Agencies Regulations

Three state licensing agencies regulate the commercial cannabis market:

- California Bureau of Cannabis Control, housed within the California Department of Consumer Affairs. The bureau licenses testing labs, distributors, dispensaries, and microbusinesses.

- CalCannabis Cultivation Licensing (CalCannabis), housed within the California Department of Food and Agriculture (CDFA). CalCannabis licenses cannabis cultivators, nurseries, and processors.

- Manufactured Cannabis Safety Branch, housed within the California Department of Public Health (CDPH). The Manufactured Cannabis Safety Branch licenses manufacturers of cannabis products, including edibles.

Regulations associated with utilities and service systems are described below.

Wastewater Service

The following cannabis licensing agency state regulations are applicable to the project as they relate to wastewater treatment.

Manufactured Cannabis Safety Branch Licensing

CCR Section 40240 contains wastewater requirements for cannabis manufacturing and products. According to these regulations, sewage disposal systems must be maintained and kept in good repair.

Water Service

The following state regulations are applicable to the project as they relate to water supply.

Cultivation Licensing

CCR Sections 8102 and 8107 outline water supply requirements for cultivators, nurseries, and processors. These requirements include identification of applicable water sources (retail water supplier, groundwater well, rainwater catchment system, or diversion from a surface water body) used for cultivation activities. If water is sourced from a retail water supply source, the name of the retail water supplier and a copy of the most recent bill must be kept on the premises. Depending on the type of water supplier, more information may be necessary.

Bureau of Cannabis Control Licensing

CCR Sections 5501 and 5503 provide water requirements for microbusiness applications that include cultivation activities. These requirements include identification of applicable water sources (retail water supplier, groundwater well, rainwater catchment system, or diversion from a surface water body) used for cultivation activities. If water is sourced from a retail water supply source, the name of the retail water supplier and a copy of the most recent bill. Depending on the type of water supplier, more information may be necessary.

Manufactured Cannabis Safety Branch Licensing

CCR Section 40240 contains water requirements for cannabis manufacturing and products. According to these regulations, running water must be supplied in all areas necessary for the processing of cannabis products; the cleaning of equipment, utensils, and packaging materials; and for employee sanitary facilities. Any water that contacts cannabis, components, cannabis products, contact surfaces, or packaging materials shall be potable.

Solid Waste Service

The following state regulations are applicable to the project as they relate to solid waste.

Cultivation, Nursery, and Processor Licensing

CCR Sections 8108 and 8308 of the CalCannabis regulations outline requirements for solid waste management for cultivators, nurseries, and processors. These regulations require development and implementation of a cannabis waste management plan that includes methods for managing cannabis waste, such as on-premises composting, collection and processing by an agency, or self-hauling to a permitted facility. Proof of services must be provided through evidence of a subscription service or receipt from self-haul facility. A licensee must report all cannabis waste activities, up to and including disposal into the state's track-and-trace system.

Bureau of Cannabis Control Licensing

CCR Section 5054 of the Bureau of Cannabis Control regulations provides methods for disposal of cannabis manufacturing products. These regulations require that to be rendered as cannabis waste for proper disposal, cannabis goods must first be destroyed on the licensed premises. This includes, at a minimum, removing or separating the cannabis goods from any packaging or container and rendering it unrecognizable and unusable. A licensee must report all cannabis waste activities, up to and including disposal into the state's track-and-trace system.

Manufactured Cannabis Safety Branch Licensing

The Manufactured Cannabis Safety Branch regulations require a licensee to have a written cannabis waste management plan (see CCR Section 40290). This requires that all disposed cannabis is entered into the track-and-trace system. Cannabis waste may be collected from a licensee in conjunction with a regular organic waste collection route used by the local agency, a waste hauler franchised or contracted by the local agency, or a private waste hauler permitted by the local agency. If a local agency, a waste hauler franchised or contracted by the local agency, or a private waste hauler permitted by the local agency is being used to collect and process cannabis waste, a licensee must provide evidence of a subscription service. If the licensee chooses to self-haul solid wastes, copies of a certified weight ticket or receipt from the solid waste facility must be made available upon request.

Track-and-Trace System

The California Cannabis Track-and-Trace system is the program used statewide to record the inventory and movement of cannabis and cannabis products through the commercial cannabis supply chain. The system uses unique identifier tags that are used for plants and packages inventories, defined as follows.

- Plants are immature or flowering. All plants must enter the system through immature plant lots (up to 100 plants per lot). Each immature plant must be labelled with the lot unique identifier. Individual flowering plants are assigned a plant tag.

- Packages are created from immature plants, harvest batches, testing lab samples, production batches, and other packages. Any amount of cannabis or cannabis product that may be sold, manufactured, or transferred, must be placed into one or more packages, and each individual package must have a unique identifier tag created.

As part of the annual state licensing procedures, either CalCannabis Cultivation Licensing, the Bureau of Cannabis Control, or the California Department of Public Health will send system-training registration information to the applicant. Applicants are strongly encouraged to complete the required user training while their provisional/annual license application is being reviewed. Once a provisional/annual license is approved and the license holder and/or designated account manager have completed the required training, the applicant may access the tracking systems.

State Water Resources Control Board – Cannabis Cultivation Policy

The State Water Resources Control Board's (SWRCB's) cannabis cultivation policy provides requirements for the treatment of wastewater associated with indoor cannabis cultivation. Indoor cannabis cultivation structure must either (1) discharge all industrial wastewaters generated to a permitted wastewater treatment collection system and facility that accepts cannabis cultivation wastewater; or (2) collect all industrial wastewater in an appropriate storage container to be stored and properly disposed of by a permitted wastewater hauler at a permitted wastewater treatment facility that accepts cannabis cultivation wastewater.

California Health and Safety Code

A public water system is defined in CHSC Section 116275(h) as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." Human consumption is defined in Section 116275(e) as "the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes."

California Integrated Waste Management Act

The California Waste Management Act of 1989 requires state, County, and local governments to substantially decrease the volume of waste disposed at landfills by the year 2000 and beyond. The act requires each County to submit an Integrated Waste Management Plan to the California Integrated Waste Management Board that includes an adopted Source Reduction and Recycling Element from each of its cities as well as a County-prepared Source Reeducation and Recycling Element for the unincorporated area. The element identifies existing and future quantities and types of solid waste, an inventory of existing

disposal sites, a determination of the plan's economic feasibility, enforcement programs, and implementation schedule.

California Code of Regulations, Energy Efficiency Standards

Energy consumption in new buildings in California is regulated by State Building Energy Efficiency Standards (CALGreen) contained in the CCR, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide consumption reduction.

PG&E Gas Rules

PG&E's Gas Rules 15 and 16 provide policies and procedures for the extension of gas services and distribution mains necessary to furnish permanent services to customers. It outlines responsibilities for installation and extension of gas lines, as well as financial contributions by project applicants.

LOCAL

Yolo County 2030 Countywide General Plan

The following policies address utility services and are applicable to the project:

- **Policy CC-2.2**: Ensure that the appropriate base level of rural services and infrastructure for existing development in each community is required in connection with new development.
- **Policy CC-4.11**: Require site specific information appropriate to each application to enable informed decision-making, including but not limited to the following: biological resources assessment, noise analysis, traffic and circulation assessment, air quality calculations (including greenhouse gases), cultural resources assessment, geotechnical study, Phase One environmental site assessment, title report, storm drainage analysis, flood risk analysis, water supply assessment, sewer/septic capacity and service analysis and fiscal impact analysis.
- **Policy CO-5.16:** Require all development to have an adequate water supply. Require significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment. The assessment shall demonstrate a long-term, reliable water supply satisfactory under normal and above normal rainfall conditions, as well as drought conditions. Satisfy the requirements of CEQA Guidelines Section 15155 to consult with water agencies regarding water supply assessments.
- **Policy PF-1.1**: Require discretionary projects to demonstrate adequate long-term wastewater collection, treatment, and disposal capacity, including full funding for land acquisition, facility design and construction, and long-term operations and maintenance for needed wastewater treatment and disposal facilities. Where such funding is dependent upon a community vote, approval of the project by the County shall be contingent upon a successful voting outcome.
- **Policy PF-1.2**: Promote innovative and efficient options for sewage and septic treatment that are appropriate for the type of development to be served, existing facilities available, and administrative alternatives.
- **Action PF-A3**: Require service hook-up for all septic users within a community when new sewer treatment facilities are made available.
- **Policy PF-9.1:** Meet or exceed State waste diversion requirements.
- **Policy PF-9.3:** Employ innovative strategies to ensure efficient and cost-effective solid waste and other discarded materials collection, disposal, transfer, and processing.

- **Policy PF-9.8:** Require salvage, reuse or recycling of construction and demolition materials and debris at all construction sites.
- **Policy PF-9.9**: Encourage use of salvaged and recycled materials in construction.
- **Policy PF-11.3:** Require utility lines to follow field edges to minimize impacts on agricultural operations.
- **Policy PF-12.10:** Ensure that all basic community services (e.g., septic/sewage, water, drainage, roads, power, parks, schools, libraries, etc.) for new planned development, including all Specific Plan areas, are made available consistent with the target service levels established in this General Plan, prior to or concurrent with need, to the extent feasible.

Countywide Integrated Waste Management Plan

Counties are required to prepare and submit to CalRecycle an integrated waste management plan that includes a Household Hazardous Waste Element, Source Reduction Recycling Element, Nondisposal Facility Element, and Regional Siting Element if regional agencies have been formed. The Countywide Integrated Waste Management Plan summarizes waste management problems facing the County. It also provides an overview of the actions that will be taken to achieve PRC Section 4178.

Yolo County Code

Water Supply Requirements

Title 6, Chapter 8 of the Yolo County Code provides objectives, criteria, and procedures for the regulation of domestic water supplies and wells in order to assure high quality water supplies. Section 6-8.301 establishes water quality and monitoring standards for public water systems. Sections 6-8.1000 through 6-8.1012 include standards for private wells that include well spacing requirements from septic systems, property lines, animal confinement areas and hazardous material operations, and well design standards regarding casings, depth of well, and disinfection requirements.

Public Sewers

Title 6, Chapter 5, Article 3 of the Yolo County Code addresses public sewer use. Section 6-5.035 contains prohibitions of certain waters and wastes into the public sewer, including flammable or explosive materials and toxic or poisonous wastes that could constitute a hazard to humans or animals.

Yolo County Onsite Wastewater Treatment System Ordinance

Chapters 5 and 8 of Title 6 of the County of Yolo Code of Ordinances were amended in 2016 to establish conformity with standards for the approval, installation, and operation of Onsite Wastewater Treatment Systems within Yolo County. This Ordinance is consistent with the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems adopted by the California State Water Resources Control Board on June 19, 2012. A County Onsite Wastewater Treatment Manual provides the policy, procedural, and technical requirements for the implementation of the provisions of the amended ordinance. Section 6-19.601(a) of the Ordinance requires that places of business which cannot be connected to a public sewer system, must be connected to an onsite wastewater treatment system. In addition, Ordinance Section 6-19.610(g) specifies that portable toilets may be used on a temporary basis, including agricultural purposes and at construction sites. Section 6C2(b) of the Onsite Wastewater Treatment Manual provides further clarification stating that portable toilets are only allowed for temporary or limited use areas such as construction sites, mobile or temporary agricultural uses, temporary campsites, and special events.

The Yolo County Division of Environmental Health Policy and Procedure Chapter 6, Division 5, Section 3.16 specifically addresses onsite wastewater treatment system requirements for agricultural operations, including cannabis. The policy defines two types of agricultural operations: cultivation only and cultivation with onsite processing. Cultivation only operations apply to businesses engaged in cultivation and harvesting only. This is similar to row crop type operations with little handling of the product. Cultivation with onsite

processing defines processing as including but is not limited to trimming, drying, curing, grading, storing, packaging, and labeling of non-manufactured product incidental to the operation. Cultivation only businesses may operate with portable toilets. However, cultivation businesses with onsite processing may connect to a public sewer or an approved onsite wastewater treatment system.

Issues related to onsite-wastewater treatment systems are addressed in Section 3.10, "Hydrology and Water Quality;" however, the ordinance provides the following definition, which is pertinent to the discussion below related to wastewater treatment.

"Sec. 6-19.433 Industrial Wastewater: Any Wastewater generated from any manufacturing, processing institution, commercial, or agricultural operation, or any operation that discharges other than Domestic Wastewater."

3.15.3 Environmental Impacts and Mitigation Measures

METHODS AND ASSUMPTIONS

The impact analysis is based on existing conditions identified in Section 3.15.1,"Environmental Setting." Assumptions associated with construction and operation of assumed cannabis uses under each of the five alternatives are provided in Table 2-4, Exhibits 2-4 through 2-8, and Appendix D. Potential impacts on public water and wastewater services are based on the assumed locations of new cannabis uses in relation to the CSDs and cities for EIR analysis purposes as shown in Exhibits 3.15-2 through 3.15-6. The reader is referred to Section 3.10, "Hydrology and Water Quality," regarding countywide groundwater supply and drainage impacts and potential wastewater treatment facility impacts associated with cannabis use waste discharges.

Chapter 4, "Cumulative Impacts and Overconcentration," contains a separate detailed analysis of the potential for cumulative effects not otherwise identified in this section, and effects from concentrations or clusters of multiple cannabis uses located in distinct subregions of the County.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. These thresholds address possible impacts anticipated with the implementation of the CLUO under the five alternatives under consideration.

The project would result in a significant impact on utilities and service systems if it would:

- require or result in the relocation or construction of new or expanded water or wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects;
- not have sufficient water supplies available from a public water system to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

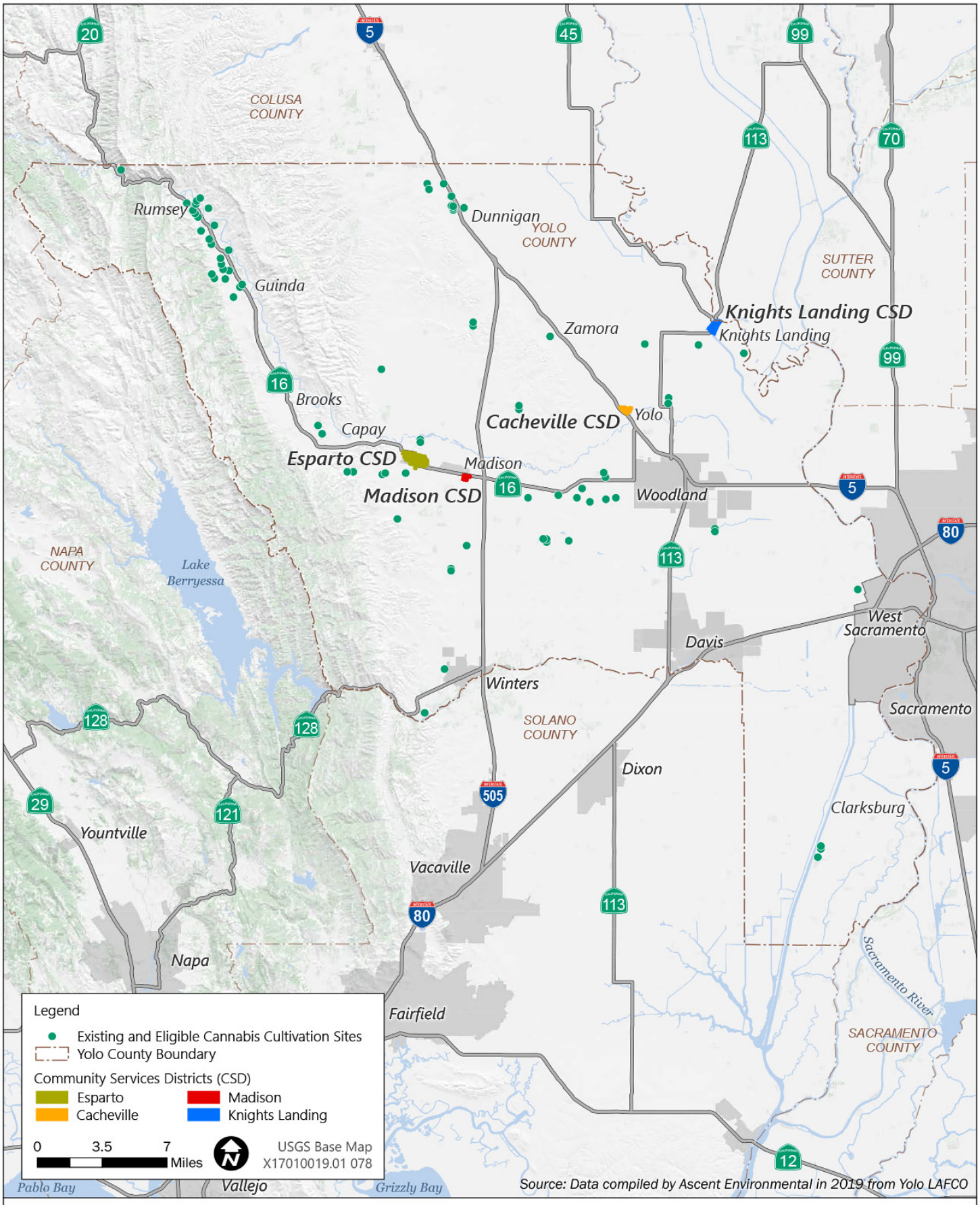


Exhibit 3.15-2 **Alternative 1 Cannabis Uses and Community Service Districts**

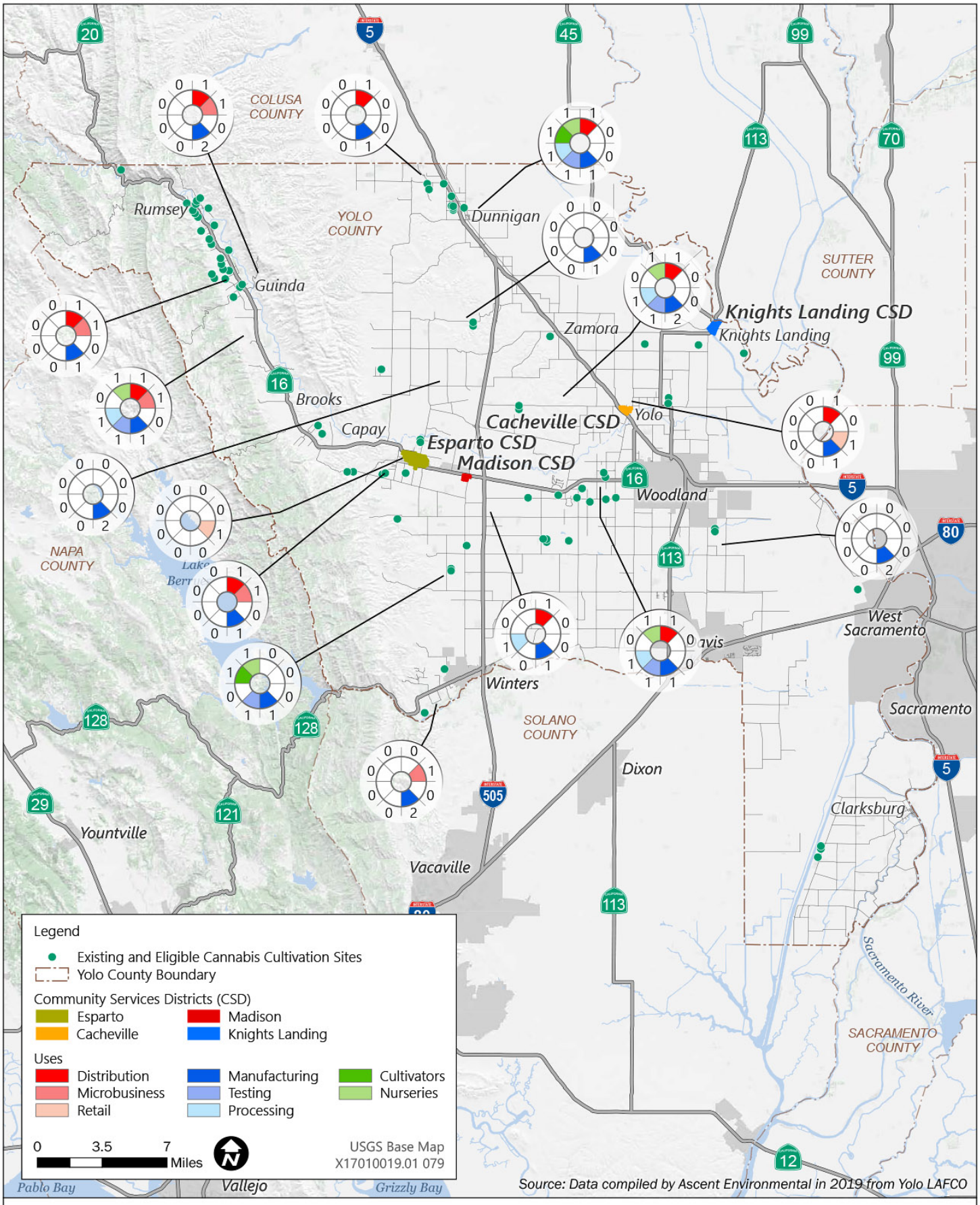


Exhibit 3.15-3 **Alternative 2 Cannabis Uses and Community Service Districts**

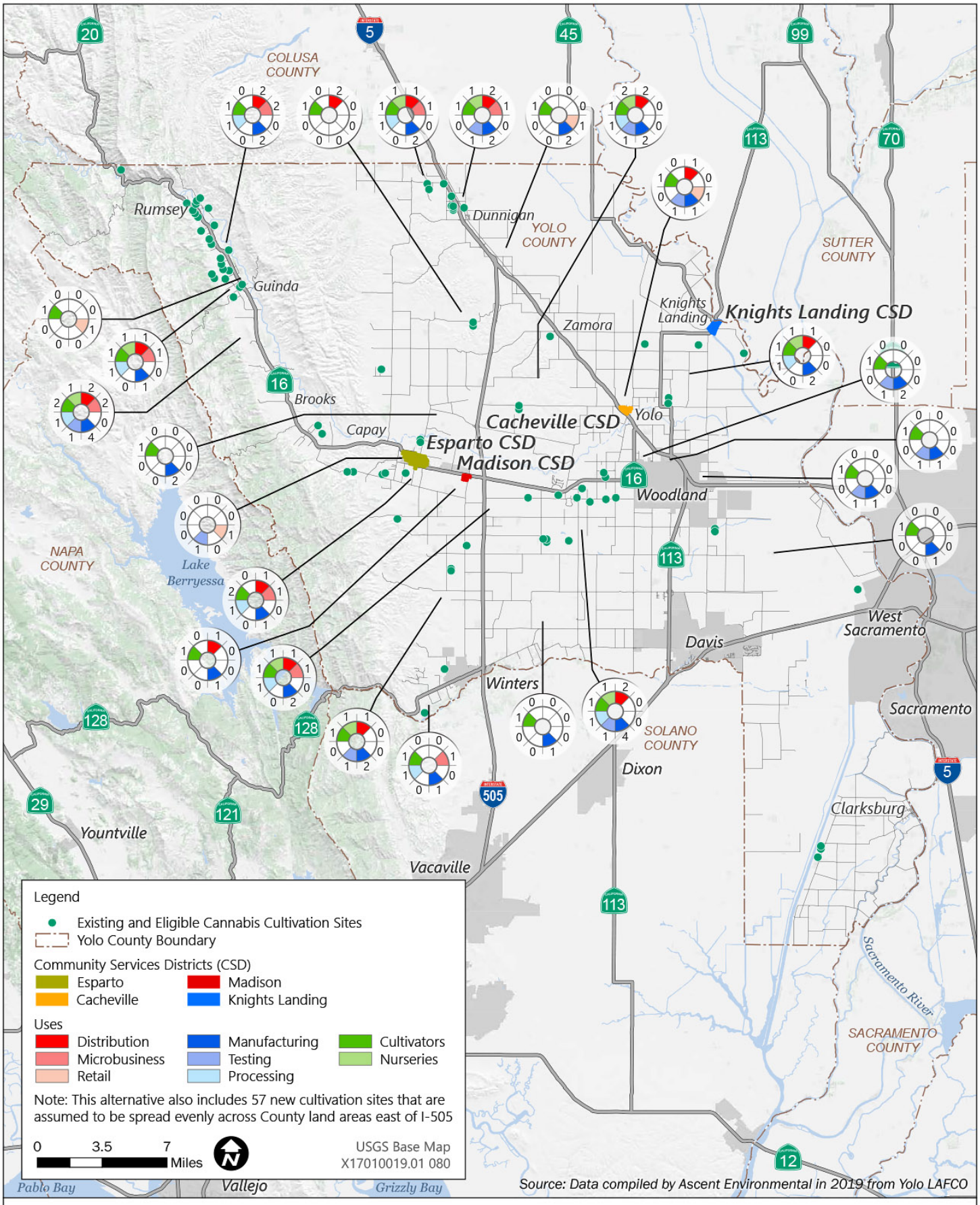


Exhibit 3.15-4 **Alternative 3 Cannabis Uses and Community Service Districts**

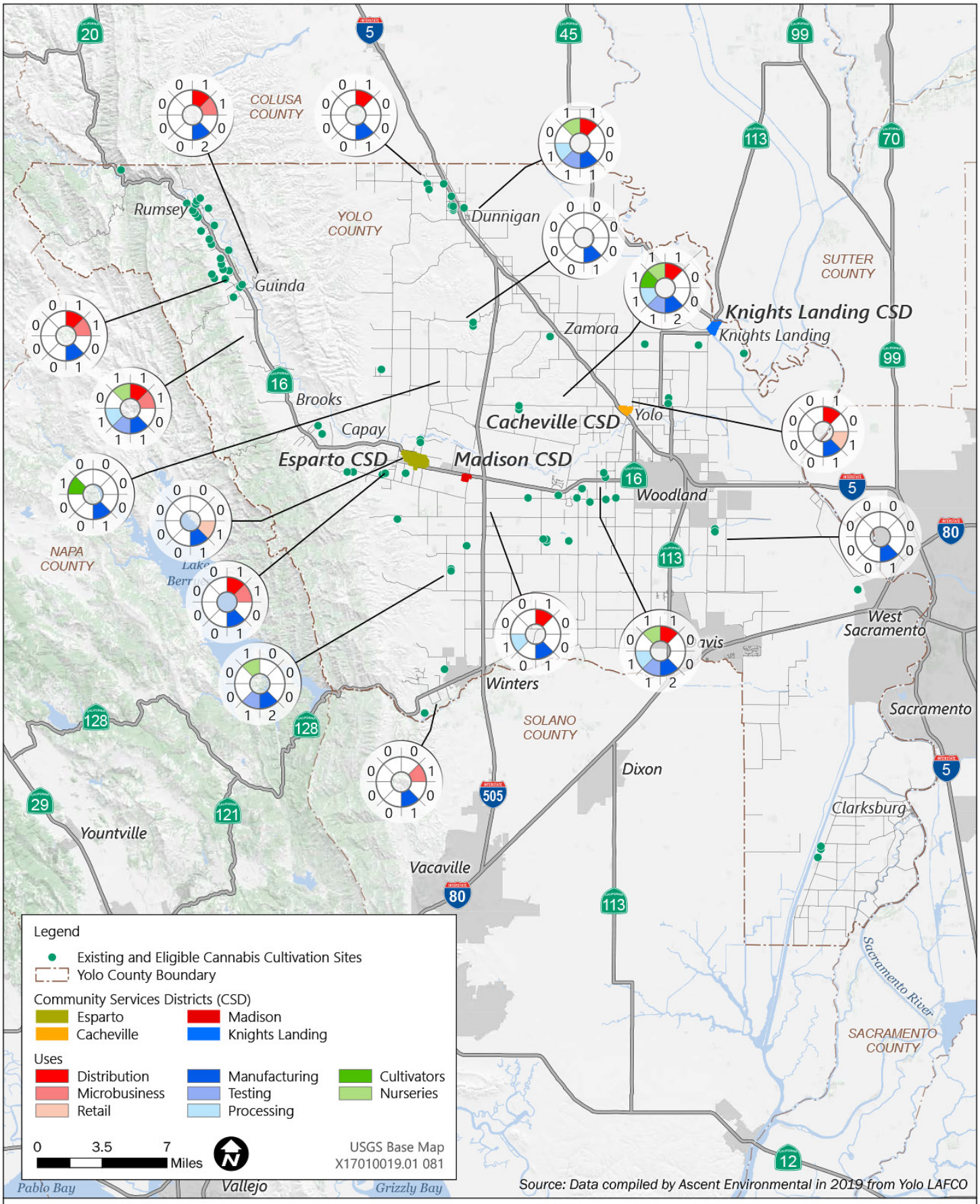


Exhibit 3.15-5 **Alternative 4 Cannabis Uses and Community Service Districts**

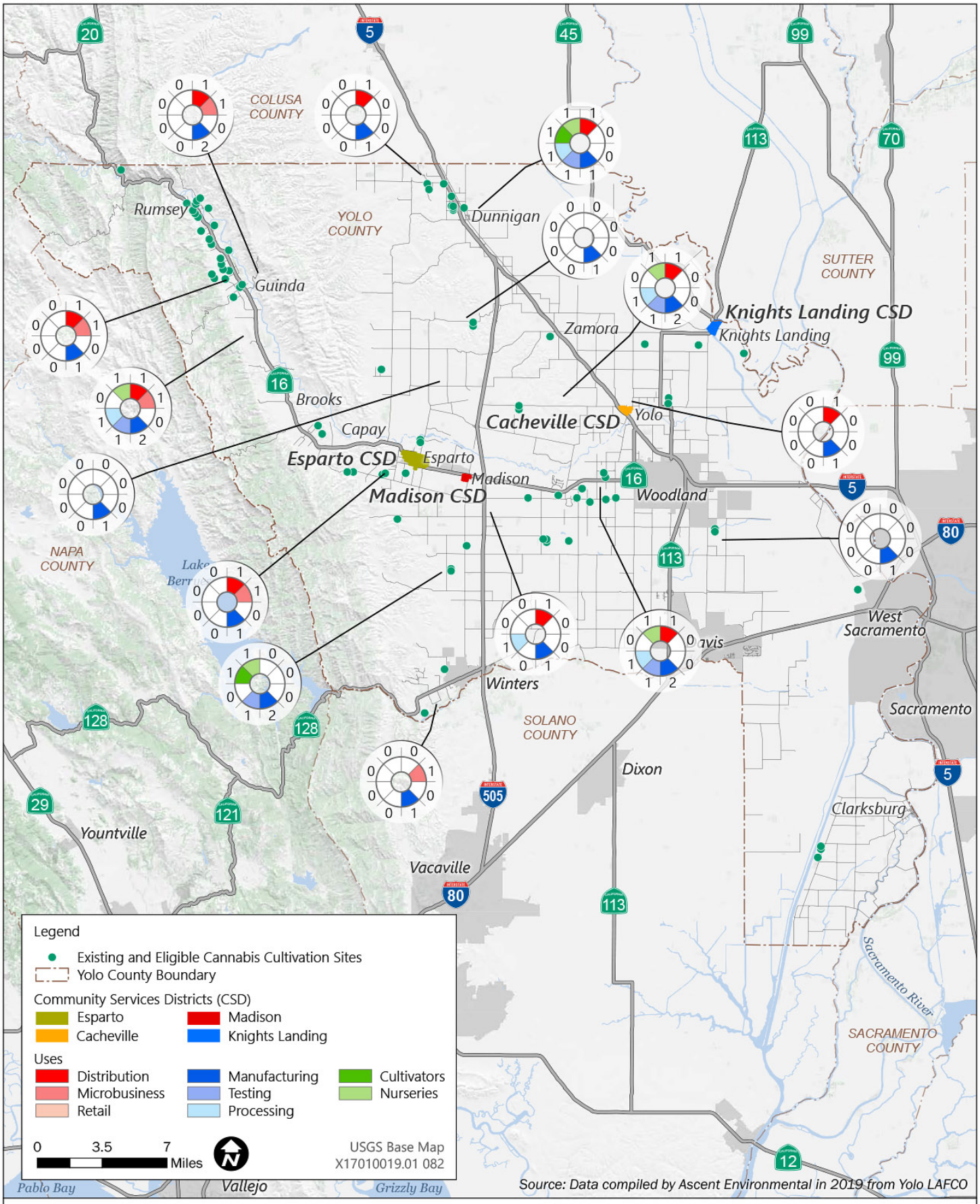


Exhibit 3.15-6 **Alternative 5 Cannabis Uses and Community Service Districts**

As described in Section 3.15.1, "Environmental Setting," groundwater is the water supply source for public water systems in the unincorporated area of the County. Groundwater supply impacts are addressed in Impact HYDRO-2 in Section 3.10, "Hydrology and Water Quality."

Section 3.0, "Approach to the Environmental Analysis," identifies that implementation of the CLUO would not result in significant environmental impacts related to drainage facilities, electrical or natural gas facilities, or telecommunication facilities. Therefore, this impact issue area is not further evaluated.

IMPACT ANALYSIS

Impact UTIL-1: Result in Relocation or Expansion of Wastewater Treatment Systems and Facilities

Adoption and Implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could require public wastewater services from CSDs or the City of Woodland. The CLUO would require cannabis use permittees to demonstrate adequate wastewater service. This impact would be **less than significant** for all alternatives.

New cannabis cultivation and noncultivation uses would require wastewater services, which may be provided using on-site systems, typically as septic tanks, or connecting to a municipal wastewater treatment plant or facility. Some cannabis use wastewater may be defined as "industrial wastewater" under Section 6-19.433 of the Yolo County Code and require additional wastewater treatment for public wastewater systems to accept and permitting (e.g., report of waste discharge) from the Central Valley Regional Water Quality Control Board (RWQCB) for on-site wastewater treatment systems. Irrigation tail water or hydroponic wastewater from cultivation operations may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver). Other sanitation based wastewaters may also be generated at indoor commercial cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams. Cannabis manufacturing and testing uses share general similarities with other manufacturing, laboratory, and research development uses that use solvents (e.g., butane, ethanol, isopropanol, propane, etc.) to draw tetrahydrocannabinol (THC) from the flowers, leaves, and stems of cannabis plants. The reader is referred to Impact HYDRO-4 in Section 3.10, "Hydrology and Water Quality," for a further discussion of this issue.

CLUO Section 8-2.1406(L)(5) would require cannabis uses to meet the following finding for issuance of a Cannabis Use Permit to ensure adequate wastewater services are available to serve the site. Cannabis Use Permits would not be issued if this finding cannot be made.

> Adequate utilities, access roads, drainage, sanitation, and/or other necessary facilities will be provided, as required in applicable County and State regulations, standards, and specifications.

Section 8-2.1408(TT) includes the following requirements for verification of adequate wastewater service:

- Access to adequate toilet facilities during operation must be provided and shall meet the requirements of the Division of Environmental Health (see Section 6-19.601 et. seq. of the YCC. If a connection to a public sewer system cannot be provided, an onsite wastewater treatment system (OWTS) or other approved wastewater disposal method is required. A permit from the Division of Environmental Health is required prior to construction of an OWTS. Wastewater effluent must be discharged into an approved OWTS or public sewer system. Permittees shall comply with applicable County and State and requirements for wastewater discharge.

CLUO Section 8-2.1408(OO) requires the site design to demonstrate compliance with wastewater service. Compliance may be provided as details on the on-site wastewater treatment system and its permits or verification of wastewater service by a public wastewater treatment facility and any required connection

improvements (e.g., pipeline connections and pumps). This is consistent with General Plan Policies CC-4.11, PF-1.1, and PF-1.2 and Action PF-A3 regarding wastewater service provision.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. These activities would be an ancillary use to the residential use of the parcel and is not expected to generate any wastewater treatment requirements that are not already provided on the parcel.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

This alternative assumes the retention of the current extent of cannabis cultivation that is allowed in the County. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO. As shown in Exhibit 3.15-2, none of the existing or eligible cannabis cultivation sites are located within the service areas of the CSDs. These existing and relocated sites would be required to demonstrate adequate wastewater facilities pursuant to CLUO Sections 8-2.1408(OO) and 8-2.1408(TT) as part of obtaining Cannabis Use Permits.

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 3.15-3, Alternative 2 assumes that a cannabis retail site could be located in the Esparto CSD. While this is an analytical assumption made solely for the purposes of this analysis, cannabis uses in any location where required services could not be provided would be not be issued a Cannabis Use Permit pursuant to Section 8-2.1406(L)(5) and 8-2.1408(TT) identified above. Cannabis uses that use an on-site wastewater treatment system would be required to comply with CLUO Section 8-2.1408(TT) as part of obtaining Cannabis Use Permits and may require approvals from the RWQCB. Compliance with these measures would ensure no adverse impacts to wastewater service providers.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 3.15-4, Alternative 3 assumes that a testing site could be located in the Esparto CSD, and three cultivation sites, three testing sites, and four manufacturing sites in the planning area of the City of Woodland that could obtain wastewater service from the City. While this is an analytical assumption made solely for the purposes of this analysis, cannabis uses in any location where required services could not be provided would be not be issued a Cannabis Use Permit pursuant to Section 8-2.1406(L)(5) and 8-2.1408(TT) identified above. Cannabis uses that use an on-site wastewater treatment system would be required to comply with CLUO Section 8-2.1408(TT) as part of obtaining Cannabis Use Permits and may require approvals from the RWQCB. Compliance with these measures would ensure no adverse impacts to wastewater service providers.

This impact would be **significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 3.15-5, Alternative 4 assumes that a manufacturing site could be located in the Esparto CSD. While this is an analytical assumption made solely for the purposes of this analysis, cannabis uses in any location where required services could not be provided would be not be issued a Cannabis Use Permit pursuant to Section 8-2.1406(L)(5) and 8-2.1408(TT) identified above. Cannabis uses that use an on-site wastewater treatment system would be required to comply with CLUO Section 8-2.1408(TT) as part of obtaining Cannabis Use Permits and may require approvals from the RWQCB. Compliance with these measures would ensure no adverse impacts to wastewater service providers.

This impact would be **significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 3.15-6, Alternative 5 is assumed not to locate any cannabis uses within CSD boundaries in the County. While this is an analytical assumption made solely for the purposes of this analysis, cannabis uses in any location where required services could not be provided would be not be issued a Cannabis Use Permit pursuant to Section 8-2.1406(L)(5) and 8-2.1408(TT) identified above. Compliance with these measures would ensure no adverse impacts to wastewater service providers. Cannabis uses that use an on-site wastewater treatment system would be required to comply with CLUO Section 8-2.1408(TT) as part of obtaining Cannabis Use Permits and may require approvals from the RWQCB.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact UTIL-2: Result in Relocation or Expansion of Water Supply Systems

Adoption and Implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO could increase demands on public water systems and their associated infrastructure. CLUO Section 8-2.1408 (VV) requires commercial cannabis facilities to demonstrate that adequate water delivery infrastructure is available to meet demand. This impact would be **less than significant** under all alternatives.

State licensing regulations require cannabis cultivators, nurseries, processors, and microbusinesses that include cultivators to submit the source of water as part of the permit application process under CCR Sections 5501, 5503, 8102, and 8107. If the permit applicant indicates that a retail water source is used, the name of the water supplier and the most recent bill must be submitted. This provides proof of existing pipelines and other water infrastructure, and it can generally be assumed that the infrastructure within an individual site is sufficient upon completion of permitting requirements.

CLUO Section 8-2.1406(L)(5) would require cannabis uses to meet the following finding for issuance of a Cannabis Use Permit to ensure adequate water services are available to serve the site. Cannabis Use Permits would not be issued if this finding cannot be made.

> Adequate utilities, access roads, drainage, sanitation, and/or other necessary facilities will be provided, as required in applicable County and State regulations, standards, and specifications.

The CLUO includes the following requirements regarding water service provision (CLUO Section 8-2.1408[VV]):

- Access to potable drinking water and water for hand washing during operation must be provided and shall meet the requirements of the Division of Environmental Health. Permittees shall identify the source of all water proposed to be used for the operation, substantiate a legal right to use the water if from a surface source, and demonstrate that adequate capacity is available to serve the use on a sustainable basis. If operations will involve more than 25 persons (including employees, property owners, and visitors) at least 60 days per year, the site must comply with public water system requirements and obtain a water supply permit from the Division of Environmental Health. CDFA licensees shall comply with Section 8107, Supplemental Water Source Information, of the CDFA Regulations. Microbusiness permittees with cultivation shall comply with Section 5503, Supplemental Water Source Information, of the BCC Regulations.

This is consistent with General Plan Policies CC-2.2, CC-4.11, and CO-5.6 regarding water service provision.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. These activities would be an ancillary use to the residential parcel and are not expected to generate new water delivery infrastructure service system requirements that are not already provided on the parcel.

The reader is referred to Impact HYDRO-2 in Section 3.10, "Hydrology and Water Quality," for the analysis of the CLUO's impact on groundwater supply.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As shown in Exhibit 3.15-2, none of the existing or eligible cannabis cultivation sites are located in the CSDs. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative to comply with zoning standards under the CLUO but are not likely to relocate within the CSDs. Existing cannabis cultivation primarily use on-site groundwater wells. Existing and relocated sites would be required to demonstrate adequate water service infrastructure pursuant to CLUO Sections 8-2.1406(L)(5) and 8-2.1408(VV).

This impact would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibit 3.15-3, Alternative 2 assumes that a cannabis retail site could be located in the Esparto CSD and a distribution site, cannabis retail site, and a manufacturing site could be located in the Cacheville CSD. As noted in Section 3.15.1, "Environmental Setting," both of these CSDs may require water facility improvements to accommodate these cannabis uses. Permittees would be required to demonstrate adequate water service infrastructure under CLUO Section 8-2.1406(L)(5) and Section 8-2.1408(VV) and any on-site improvements that would be required for service (e.g., groundwater well and storage tank) under CLUO Section 8-2.1408(OO) in order to obtain a Cannabis Use Permit. The environmental impacts of the construction of improvements (including infrastructure) for cannabis sites is programmatically addressed in this EIR. Compliance with the CLUO requirements would ensure that adequate water delivery infrastructure service systems are in place to accommodate cannabis uses.

This impact would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibit 3.15-4, Alternative 3 assumes that a cannabis retail site and a testing site could be located in the Esparto CSD and a distribution site, cannabis retail site, and three cultivation sites, three testing sites, and four manufacturing sites in the planning area of the City of Woodland. The City of Woodland and Esparto CSD may require water facility improvements to accommodate these cannabis uses. Permittees would be required to demonstrate adequate water service infrastructure under CLUO Section 8-2.1406(L)(5) and Section 8-2.1408(VV) and any on-site improvements that would necessary for service (e.g., groundwater well and storage tank) under CLUO Section 8-2.1408(OO) in order to obtain a Cannabis Use Permit. The environmental impacts of the construction of improvements (including infrastructure) for cannabis sites is programmatically addressed in this EIR. Compliance with the CLUO requirements would ensure that adequate water delivery infrastructure service systems are in place to accommodate cannabis uses.

This impact would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibit 3.15-5, Alternative 4 assumes that a cannabis retail site and a testing site could be located in the Esparto CSD and a distribution site, cannabis retail site, and a manufacturing site could be located in the Cacheville CSD. As noted in Section 3.15.1, "Environmental Setting," both of these CSDs may

require water facility improvements to accommodate these cannabis uses. Permittees would be required to demonstrate adequate water service infrastructure under CLUO Section 8-2.1406(L)(5) and Section 8-2.1408(VV) and any on-site improvements that would necessary for service (e.g., groundwater well and storage tank) under CLUO Section 8-2.1408(OO) in order to obtain a Cannabis Use Permit. The environmental impacts of the construction of improvements (including infrastructure) for cannabis sites is programmatically addressed in this EIR. Compliance with the CLUO requirements would ensure that adequate water delivery infrastructure service systems are in place to accommodate cannabis uses.

This impact would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibit 3.15-6, Alternative 5 assumes that a distribution site and a manufacturing site could be located in the Cacheville CSD. As noted in Section 3.15.1, "Environmental Setting," the Cacheville CSD may require water facility improvements to accommodate these cannabis uses. Permittees would be required to demonstrate adequate water service infrastructure under CLUO Section 8-2.1406(L)(5) and Section 8-2.1408(VV) and any on-site improvements that would necessary for service (e.g., groundwater well and storage tank) under CLUO Section 8-2.1408(OO) in order to obtain a Cannabis Use Permit. The environmental impacts of the construction of improvements (including infrastructure) for cannabis sites is programmatically addressed in this EIR. Compliance with the CLUO requirements would ensure that adequate water delivery infrastructure service systems are in place to accommodate cannabis uses.

This impact would be **less than significant** under Alternative 5.

Mitigation Measures

No mitigation is required for any of the alternatives.

Impact UTIL-3: Generate Solid Waste in Excess of Solid Waste Facilities or That Conflicts with Regulations

Adoption and Implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO would generate solid waste that would be required to comply with state regulations related to cannabis waste. There is adequate capacity in County solid waste facilities to accommodate solid waste generated. Cannabis facilities would comply with the Yolo County Landfill's process to dispose of cannabis waste and hazardous materials. This impact would be **less than significant** under all alternatives.

Implementation of the CLUO would allow for new cannabis uses in the County that would generate solid waste. In addition to solid waste common to agricultural, commercial, and industrial uses (e.g., food waste, plastic, paper, glass, metal, and other similar materials) cultivation, nurseries, and processing uses generate cannabis plant waste that is considered organic waste under state regulations. Cannabis manufacturing and retail uses generate cannabis product (also known as cannabis goods) waste that state regulations (see below) require to be unusable and unrecognizable prior to leaving the licensed site. Similar to other industrial uses, cannabis manufacturing uses also involve the use of solvents that require disposal. As further described below, the CLUO and state cannabis regulations have specific requirements for the disposal of cannabis waste that includes a track and trace system.

Section 8-2.1408(RR) of the CLUO includes the following requirements for cannabis waste management for all alternative:

- Cannabis waste/trash/garbage must be stored so as not to create a public nuisance and must be removed from the facility every 7 days to an appropriately permitted disposal facility. CDFA licensees shall provide the Cannabis Waste Management Plan required pursuant to Section 8108, Cannabis Waste Management, of the CDFA Regulations and satisfy the requirements of Section 8308, Cannabis Waste Management of the CDFA regulations. BCC licensees shall satisfy the requirements of Section

5054, Destruction of Cannabis Goods Prior to Disposal, Section 5055 (Cannabis Waste Management), and other applicable requirements of the BCC Regulations pertaining to record keeping and waste management. CDPH licensees shall satisfy the requirements of Section 40290, Waste Management, of the CDPH Regulations for Cannabis Manufacturing.

As described in Section 3.15.2, "Regulatory Setting," CCR Sections 8108 and 8308 require cultivation, nurseries, and processing facilities to have a cannabis waste management plan that identifies methods for managing cannabis waste, including on-premises composting, collection and processing by an agency, or self-hauling to a permitted facility. Transportation of self-hauled cannabis waste shall only be performed by the licensee or employees of the licensee. CCR Section 5054 provides methods for disposal of cannabis products.

These regulations require that to be rendered as cannabis waste for proper disposal, cannabis goods must first be destroyed on the licensed premises. This includes, at a minimum, removing or separating the cannabis goods from any packaging or container and rendering it unrecognizable and unusable. A licensee must report all cannabis waste activities, up to and including disposal, into the state's track-and-trace system. CCR Section 40290 requires that all disposed cannabis is entered into the track-and-trace system for manufacturing uses in a manner similar to CCR Sections 8108 and 8308.

In addition, the Yolo County Department of Integrated Waste Management has prepared internal procedures for the disposal of waste generated from cannabis operations (see Section 3.15.1, "Environmental Setting," above). The procedures allow for cannabis disposal at the Yolo County Central Landfill with the following information: 1. A copy of the driver's license/photo ID of the disposer and 2. Completion of a "Cannabis Acceptance Form." Cannabis waste is currently not accepted at the green waste facility. Items considered to be hazardous waste must set up a hazardous waste appointment through the Conditionally Exempt Small Quantity Generator business program. Various items related to cannabis operations are considered to be hazardous waste, including growth media; fertilizers, pesticides, other agricultural chemicals; and solvents used in extractions (Yolo County 2018b). Franchised waste haulers (Waste Management Inc. and Recology Davis) may haul organic cannabis waste to the Yolo County Landfill in source-separated loads only, following similar record-keeping procedures as described above for self-haulers.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. These activities would be an ancillary use to the residential parcel and is not expected to generate new significant solid waste demands that are not already provided on the parcel.

As identified in Table 3.15-1, the Yolo County Central Landfill is anticipated to have adequate capacity for the foreseeable future to accommodate cannabis related waste, in addition to other solid waste accepted. Compliance with the above standards would ensure cannabis related solid waste is being handled consistent state requirements and would not result in any foreseeable capacity issues at the Yolo County Central Landfill. This impact would be **less than significant** under all alternatives.

Mitigation Measures

No mitigation is required for any of the alternatives.

4 CUMULATIVE IMPACTS AND OVERCONCENTRATION

4.1 CUMULATIVE IMPACTS

4.1.1 CEQA Requirements

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "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" (State CEQA Guidelines Section 15355[b]).

This section provides an analysis of cumulative impacts resulting from implementation of the CLUO together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an analysis is twofold: first, to determine whether the overall long-term impacts of all such projects combined would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts from adoption and implementation of the proposed CLUO would be "cumulatively considerable" (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], 15355[b], 15064[h], and 15065[a].) In other words, the required analysis examines the broad context in which cumulative impacts occur, and examines whether incremental contributions from project regulated under the CLUO would result in new significant cumulative impacts, or significantly add to anticipated cumulative impacts.(i.e., "cumulatively considerable").

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this draft EIR focuses on significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

> [t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

4.1.2 Cumulative Setting

SCOPE OF THE CUMULATIVE ANALYSIS

The geographic area that could be affected from implementation of the CLUO varies depending on the type of environmental resource being considered. This geographic area provides the context for consideration of cumulative impacts. The general geographic area associated with various environmental effects defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 4-1 presents the general geographic areas associated with the different resources addressed in this draft EIR and evaluated in those sections of this cumulative analysis.

Table 4-1 Geographic Scope of Cumulative Impacts

Resource Issue	Geographic Area
Aesthetics	Primarily site specific; larger localized area for certain impacts.
Agricultural Resources	Yolo County
Air Quality and Odors	Regional for criteria pollutants within the Yolo Solano Air Quality Management District Generally site specific or within a larger localized area for odor)
Biological Resources	Yolo County (Yolo HCP/NCCP Planning Area) and site- specific
Cultural Resources	Primarily site specific; larger localized area for certain impacts
Energy	Regional (PG&E energy grid)
Geology and Soils	Site specific
Greenhouse Gas Emissions and Climate Change	Global
Hazards and Hazardous Materials	Site specific
Hydrology and Water Quality	Localized and regional
Land Use and Planning	Yolo County and site- specific
Noise	Site specific and localized (e.g. along transportation corridors)
Public Services	Site specific
Transportation and Circulation	Yolo County and regional
Utilities and Service Systems	Site specific

LAND USE CONDITIONS/ACTIVITIES IN THE COUNTY

Cumulative impact analysis evaluates whether implementation of the CLUO would result in new or greater impacts that were not addressed in the 2030 Countywide General Plan EIR (State Clearinghouse No. 2008102034) (General Plan EIR). This analysis also considers the proposed nine development agreement applications for cannabis uses under the early implementation development agreement policy and the nursery and processing facilities pilot program described below and in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives."

Yolo County 2030 Countywide General Plan

The Yolo County 2030 General Plan EIR examined the impacts associated with planned growth of 23,265 residents, 7,263 residential dwelling units, and 20,818 jobs in the unincorporated area in 2008/2009 to approximately 64,700 residents, 22,061 residential dwelling units, and 53,154 jobs by 2030. Buildout of a specific plan area in the community of Dunnigan was assumed to account for most of this growth. (Yolo County 2019)

The General Plan designates the majority of the unincorporated area of the County, approximately 545,000 acres, for agricultural use. Open space is the second largest designation, with approximately 53,000 acres, followed by approximately 7,000 acres of public and quasi-public uses. The remaining areas (approximately 18,000 acres) are designated for parks and recreation, residential, commercial, industrial, specific plan, and other uses.

The General Plan Agriculture land use designation allows the following uses:

> Agriculture (AG) – Full range of cultivated agriculture such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, confined animal facilities, and equestrian facilities. Agricultural industrial – agricultural research, processing and storage; crop dusting. Agricultural commercial – roadside stands, "Yolo Stores," wineries, farm-based tourism (e.g. u-pick, dude ranch, lodging), horse shows, rodeos, crop-based seasonal events; agricultural chemical and equipment

sales. Pre-existing isolated restaurants and/or stores (e.g. old stage stops and cross-roads) serving rural areas. Farmworker housing. Surface mining. Incidental habitat.

The General Plan EIR assumed these uses on the 545,000 acres of designated as Agriculture, and additionally assumed agricultural commercial and agricultural industrial uses (as described in the designation) on 1,178 acres of these acres. The cannabis uses that would be allowed under the proposed CLUO (see for example the Table of Cannabis Development Regulations presented in CLUO Section 8-2.1407) are consistent with the assumptions of the General Plan EIR.

Additional growth may occur in the County as a result of planned land uses within the four incorporated cities, on the University of California Davis campus, and on lands held in trust by the federal government for the Yocha Dehe Wintun Nation. Although these are all activities the County does not control, the General Plan EIR examined the potential for cumulative effects associated with buildout of planned growth within the unincorporated County area, growth within these areas of the County not under County jurisdiction, and growth in jurisdictions adjoining Yolo County (see pages 805 through 817 of the Draft volume of the 2030 Countywide General Plan Final EIR (SCH # 2008102034, certified November 10, 2009).

In 2017 the County Board of Supervisors approved two General Plan amendments that removed four specific plans from the General Plan for Dunnigan, Elkhorn, Knights Landing, and Madison. These actions removed approximately 10,200 residential dwelling units and approximately 960 acres of commercial and industrial land use growth (Yolo County 2019). This growth reduction in the General Plan will reduce many of the significant environmental impacts identified in the General Plan EIR (i.e., land use and housing, agricultural resources, transportation and circulation, air quality, noise, greenhouse gases and climate change, utilities, energy, cultural resources, biological resources, hydrology and water quality, hazards and hazardous materials, and visual and scenic resources).

Cannabis Nursery and Processing Facilities Pilot Program and Early Implementation Development Agreements

As part of the cumulative scenario, this EIR considers the nine “early implementation” development agreements and nursery and processing pilot program cannabis projects summarized in Table 2-2 and shown in Exhibit 2-3 of Chapter 2, “Description of Preferred Alternative and Equal Weight Alternatives.” As identified in Chapter 2, the County Board of Supervisors approved an early implementation development agreement policy for existing licensed cannabis cultivators in the County proposing projects that include indoor or mixed-light cultivation. This process has been merged with the County’s nursery and processing facilities pilot program. Eight of these applications are existing licensed cultivators who have applied for “early implementation” development agreements, and two of the eight are also applicants for the separate nursery and processing pilot program (Kind Farms and Green Coast Industries [GCI]). The ninth application (Dark Heart) is a pilot program–only applicant. Each of the applicants is seeking a development agreement for a term of 10 years. The applications are currently undergoing separate CEQA reviews. Combined, the development agreement applications seek to vest approximately 12 acres of indoor and mixed-light cultivation canopy on nine sites that total 408 acres countywide. The maximum combined developed area of these applications totals 1,011,824 sq. ft as summarized in Table 2-2. Spatially, these applications are clustered in the west, central, and northwest areas of the County as shown in Exhibit 2-3. The reader is referred to Chapter 2, “Description of Preferred Alternative and Equal Weight Alternatives,” for a detailed description of process that lead to these nine projects.

At the time of this analysis none of the nine development agreement applications have been approved. These projects are summarized in Table 2-2. Eight of the sites are already included within the 78 existing and eligible sites that comprise Alternative 1, and are also assumed in Alternatives 2 through 5. The Dark Heart application is not currently located at an existing or eligible cultivation site. Were the nine development agreement applications to be approved in advance of the CLUO being in effect, the key differences would be as follows:

- Approval of the development agreement applications would result in two commercial nurseries and one commercial processing operation. Alternative 1 assumes cannabis cultivation only with no commercial nurseries or processing, except ancillary to the cultivation for on-site product only.

- Cultivation covered under the development agreement applications cannot occur outdoors, meaning such activities would be moved into buildings or greenhouses.

- Activities covered under the development agreement applications would not be covered by the CLUO regulations, though the rigors of the early application process, although different, were developed with the intention of ensuring protections similar to and as rigorous, as the draft CLUO.

4.1.3 Cumulative Impact Analysis

The following sections contain a discussion of the cumulative effects anticipated from implementation of the CLUO, together with planned land use activities in the County, and including the nine development agreement projects, for each of the environmental issue areas evaluated in this draft EIR.

When considered in relation to other reasonably foreseeable projects, cumulative impacts on some resources would be significant and more severe than those caused by the project alone.

For purposes of this EIR, the project would result in a significant cumulative effect if:

- the cumulative effects of related projects and land use activities (past, current, and probable future projects) are not significant but the incremental impact of implementing the CLUO under any of the five alternatives is substantial enough, when added to the cumulative effects of related projects, to result in a cumulatively significant impact; or
- the cumulative effects of related projects and land use activities (past, current, and probable future projects) are already significant and implementation of the CLUO under any of the five alternatives makes a considerable contribution to the effect.

This cumulative analysis assumes that commercial cannabis operations that may occur under each of the five alternatives comply with state and County cannabis regulations and all mitigation measures identified in Sections 3.1 through 3.15 are adopted and implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would so contribute, additional mitigation is recommended where feasible.

IMPACT CUM-1: CONTRIBUTION TO CUMULATIVE AESTHETIC IMPACTS

Visual quality and scenic resources are generally site-specific and/or localized, and not cumulative in nature. For example, the creation of glare or physical alteration of a site at one location is not generally worsened by these conditions occurring at another location in a different part of the County. Based on the analysis provided in Section 3.1, “Aesthetics,” this cumulative impact analysis focuses on whether impacts described under AES-1 through AES-4 would be worsened under cumulative conditions including implementation of planned land use activities under the General Plan and the nine development agreement projects.

While the General Plan EIR did identify significant and unavoidable visual character, glare, and nighttime lighting impacts from planned growth, no significant cumulative impacts were identified because the planned growth would be concentrated near adjacent communities and would not affect regional visual and scenic resources (Yolo County 2009).

The development agreement projects include locations along the scenic SR 16 and Cache Creek viewshed would convert existing outdoor cannabis cultivation to indoor and mixed-light cultivation, as well as any ancillary processing facilities, that would involve construction of greenhouses and buildings. These project would also contribute to alteration of visual character.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel developed with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of parcels developed with residences. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact AES-1 and AES-4, these activities would be required to be outside of front yard and side yard setback areas. CLUO Section 8-2.1408(GG) requires that personal outdoor cultivation not be visible from public rights-of-way.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would result in a cumulatively considerable contribution to cumulative aesthetic impacts related to visual character.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As described in Impact AES-1 through AES-4, Alternative 1 assumes continued operation of the 78 existing and eligible cannabis cultivation sites that currently exist in the County. Impacts to scenic vistas/viewsheds (Impact AES-1), scenic resources along scenic highways (Impact AES-2), and impacts related to light and glare (Impact AES-4) would be less than significant under cumulative conditions because existing and relocated cultivation sites would be subject to proposed CLUO standards. These include regulation of aesthetic concerns by requiring maintenance of the cultivation site and surrounding land area (Sections 8-2.1408[B] and [PP]), buildings and structures designed to be compatible with the character and scale of what is allowed in the applicable zone (Section 8-2.1408[F]), screening of outdoor cultivation from public rights-of-way (Section 8-2.1408[KK]), preservation of on-site trees (Section 8-2.1408[RR]), restoration of closed cultivation sites (Section 8-2.1412[C]), use of nonreflective building materials (Sections 8-2.1408[F] and [OO]), prohibition of lighting of hoop houses (Section 8-2.1408[X]), and standards that include shielding of exterior lighting and containment of mixed-light and indoor cultivation lighting within buildings to avoid off-site impacts (Section 8-2.1408[Z]).

The General Plan EIR evaluated the continued use of agricultural land for a variety of agricultural uses including new non-traditional crops encouraged by policies in the General Plan. The project's contribution to cumulative aesthetic impacts related to Impacts AES-1, 2, and 4, would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable** under Alternative 1.

However, for cumulative impacts related to visual character (Impact AES-3), the potential for impact is conservatively considered **cumulatively considerable and significant**. While implementation of the CLUO would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would conservatively result in cumulatively considerable contributions to cumulative visual character impacts. See Section 4.2, "Overconcentration," for analysis of potential aesthetic impacts due to clustering of cannabis uses within smaller areas of the County.

Alternative 2: All License Types with Moderate Limits

As described in Impact AES-1 through AES-4, Alternative 2 assumes the development of 54 new cannabis uses on 164 acres that would be located in the County primarily on agricultural zoned lands. Impacts to scenic vistas/viewsheds (Impact AES-1), scenic resources along scenic highways (Impact AES-2), and impacts related to light and glare (Impact AES-4) would be less than significant under cumulative conditions because all cannabis uses would be subject to CLUO standards that include regulation of aesthetic

conditions and visual character at cultivation sites through new regulations described above under Alternative 1. Cannabis uses would consist of field crops, structures, and associated improvements that would be generally visually similar to other allowed uses in the same land use designations throughout the County and would only occur on lands designated for similar land uses in the General Plan and Zoning Regulations. For example, outdoor cannabis cultivation is an outdoor agricultural use that would occur on lands designated Agriculture. Cannabis retail uses would be restricted to land designated for similar commercial uses, cannabis manufacturing activities would be restricted to land designated for similar industrial or agricultural industrial activities, etc. In addition, the proposed CLUO imposes a discretionary conditional use permit process that requires a site-specific, project-specific assessment of each proposed cannabis use for compliance and suitability.

Thus, the project's contribution to cumulative aesthetic impacts related to Impacts AES-1, 2, and 4, would not be greater than those evaluated in the General Plan EIR, and **would not be cumulatively considerable** under Alternative 2.

However, for cumulative impacts related to visual character (Impact AES-3), the potential for impact is conservatively considered **cumulatively considerable and significant**. While implementation of the CLUO would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would conservatively result in cumulatively considerable contributions to cumulative visual character impacts. See Section 4.2, "Overconcentration," for analysis of potential aesthetic impacts due to clustering of cannabis uses within smaller areas of the County.

Alternative 3: All License Types with High Limits

As described in Impact AES-1 through AES-4, Alternative 3 assumes the development of 186 new cannabis uses on 379 acres that would be located in the County primarily on agricultural zoned lands. Impacts to scenic vistas/viewsheds (Impact AES-1), scenic resources along scenic highways (Impact AES-2), and impacts related to light and glare (Impact AES-4) would be less than significant under cumulative conditions because all cannabis uses would be subject to CLUO standards that include regulation of aesthetic conditions and visual character at cultivation sites through new regulations described above under Alternative 2. Alternative 3's contribution to cumulative impacts to scenic viewsheds and lighting would be similar to impacts identified above for Alternative 2.

Thus, the project's contribution to cumulative aesthetic impacts related to Impacts AES-1, 2, and 4, would not be greater than those evaluated in the General Plan EIR, and **would not be cumulatively considerable** under Alternative 3.

However, for cumulative impacts related to visual character (Impact AES-3), the potential for impact is conservatively considered **cumulatively considerable and significant**. While implementation of the CLUO would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would conservatively result in cumulatively considerable contributions to cumulative visual character impacts. See Section 4.2, "Overconcentration," for analysis of potential aesthetic impacts due to clustering of cannabis uses within smaller areas of the County.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As described in Impact AES-1 through AES-4, Alternative 4 assumes the development of 54 new cannabis uses on 122 acres that would be located in the County primarily on agricultural zoned lands. Impacts to scenic vistas/viewsheds (Impact AES-1), scenic resources along scenic highways (Impact AES-2), and

impacts related to light and glare (Impact AES-4) would be less than significant under cumulative conditions because all cannabis uses would be subject to CLUO standards that include regulation of aesthetic conditions and visual character at cultivation sites through new regulations described above under Alternative 2. Alternative 4's contribution to cumulative impacts to scenic viewsheds and lighting would be similar to impacts identified above for Alternative 2 (though no outdoor cultivation would occur under this alternative).

Thus, the project's contribution to cumulative aesthetic impacts related to Impacts AES-1, 2, and 4, would not be greater than those evaluated in the General Plan EIR, and **would not be cumulatively considerable** under Alternative 4.

However, for cumulative impacts related to visual character (Impact AES-3), the potential for impact is conservatively considered **cumulatively considerable and significant**. While implementation of the CLUO would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would conservatively result in cumulatively considerable contributions to cumulative visual character impacts. See Section 4.2, "Overconcentration," for analysis of potential aesthetic impacts due to clustering of cannabis uses within smaller areas of the County.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As described in Impact AES-1 through AES-4, Alternative 5 assumes the development of 52 new cannabis uses on 163 acres that would be located in the County on agricultural zoned lands. Impacts to scenic vistas/viewsheds (Impact AES-1), scenic resources along scenic highways (Impact AES-2), and impacts related to light and glare (Impact AES-4) would be less than significant under cumulative conditions because all cannabis uses would be subject to CLUO standards that include regulation of aesthetic conditions and visual character at cultivation sites through new regulations described above under Alternative 2. Alternative 5's contribution to cumulative impacts to scenic viewsheds and lighting would be similar to impacts identified above for Alternative 2.

Thus, the project's contribution to cumulative aesthetic impacts related to Impacts AES-1, 2, and 4, would not be greater than those evaluated in the General Plan EIR, and **would not be cumulatively considerable** under Alternative 5.

However, for cumulative impacts related to visual character (Impact AES-3), the potential for impact is conservatively considered **cumulatively considerable and significant**. While implementation of the CLUO would regulate visual characteristics of existing and relocated cannabis sites and reduce the likelihood of adverse aesthetic contrast with adjacent rural and agricultural areas. Nevertheless, aesthetic impacts related to visual character are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. Therefore, implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would conservatively result in cumulatively considerable contributions to cumulative visual character impacts. See Section 4.2, "Overconcentration," for analysis of potential aesthetic impacts due to clustering of cannabis uses within smaller areas of the County.

Mitigation Measures

As described above, the proposed CLUO contains requirements that would regulate the overall visual quality of cannabis operations including the appearance of buildings and structures, and general maintenance of the sites. There are no other known feasible measures that would offset cumulative aesthetic impacts that are not already include in the CLUO and/or in the five alternatives under consideration.

Notwithstanding implementation of these measures and other identified existing and proposed regulations, the potential for aesthetics impacts to occur is conservatively identified as **cumulatively considerable and significant and unavoidable** because aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County.

IMPACT CUM-2: CONTRIBUTION TO CUMULATIVE AGRICULTURAL RESOURCE IMPACTS

The cumulative setting for agricultural resources consists of the entire County. A defining characteristic of Yolo County is its agricultural setting, which comprises over 80 percent of the total land area in the County. The General Plan designates approximately 545,00 acres (of over 654,000 total acres) of land in Yolo County for agricultural use. Agriculture in Yolo County is varied and includes farms of all sizes, as well as equestrian, ranching, and other related uses. The top three agricultural commodities, by dollar value, produced in Yolo County in 2017 were almonds, tomatoes, and wine grapes. These top three commodities accounted for approximately 45 percent of the County's total gross valuation ($635,246,000) for all agricultural commodities produced in 2017 (Yolo County Agricultural Commissioner 2018).

Since 2006, there has been a decline in the acreage of farmland, including prime farmland, unique farmland, and/or farmland of statewide importance, compared to nonagricultural uses in the region. There were approximately 540,000 acres of agricultural land in Yolo County in 2006. Between 2006 and 2016, approximately 7,700 acres of farmland (including grazing land) were converted to nonagricultural uses, an approximately 1.4 percent decline in available farmland over that period (California Department of Conservation 2017). This number includes conversion to habitat by other local, state and federal agencies outside of the County's jurisdiction. Conversion to urban uses does occur in Yolo County but to a minimal extent. Utilization of agricultural land for designated agricultural support uses such as barns, agricultural processing facilities, and other uses described in the General Plan as allowed in the Agriculture land use designation is not considered conversion as these uses have been identified by the County as necessary infrastructure and support facilities to maintain the viability of the agricultural economic sector. The conversion of agricultural land to non-agricultural uses would be considered a cumulatively considerable contribution to farmland impacts within Yolo County.

The General Plan EIR identified significant and unavoidable cumulative impacts for the loss of agricultural land from implementation of planned land use activities (Yolo County 2009). The nine development agreements projects would involve cannabis cultivation and supporting uses and would not contribute to cumulative agricultural resource impacts.

Pursuant to California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a), the state has defined medical and adult-use cannabis as agricultural products. CLUO Section 8-2.1404(E) identifies that cannabis cultivation and related activities are agricultural land uses.

As described in Section 2.2.1, "Summary of Cannabis Cultivation and Commerce Processes," of Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," the cultivation and commerce process for cannabis involves the same practices as other agricultural products generated currently in the County. These similar practices include:

- cultivation of the crop through a growth medium (soil), light, water, and nutrients;
- harvesting and processing of the crop for sale;
- industrial activities that create products from the crop; and
- sales of crop and/or products created from the crop.

The CLUO would add Article 14 to Title 8, Chapter 2, of the Zoning Regulations within the Yolo County Code. It would regulate all cannabis operations within the unincorporated area of the County. Specific land use requirements and development performance standards are included in the Proposed Ordinance that address agriculture operation–related issues and would not conflict with existing agricultural zoning, Williamson Act contracts, or other agricultural operations. Thus, adoption and implementation of the CLUO,

including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative impacts related to the loss of agricultural resources in the County. This conclusion applies to all alternatives.

IMPACT CUM-3: CONTRIBUTION TO CUMULATIVE AIR QUALITY AND ODOR IMPACTS

The cumulative setting for air quality is the Sacramento Valley Air Basin (SVAB). The SVAB includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The cumulative setting for odor is generally site-specific and/or a larger localized area based on the site, the proposed cannabis operation, topography, meteorology, and other relevant conditions.

The Yolo-Solano Air Quality Management District (YSAQMD) regulates air pollutant point sources in the SVAB. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. As described in Section 3.3, "Air Quality and Odors," Yolo County is nonattainment for ozone and respirable particulate matter (PM_{10}) with respect to the California Ambient Air Quality Standards (CAAQS) and is in nonattainment for ozone and fine particulate matter ($PM_{2.5}$) with respect to the National Ambient Air Quality Standards. Therefore, NO_X, ROG (ozone precursors), and PM emissions from cumulative conditions are significant in the air basin.

According to YSAQMD's CEQA Handbook, projects that are not consistent with the Air Quality Attainment Plan, State Implementation Plan, or whose emissions exceed YSAQMD's thresholds would have a significant cumulative impact (YSAQMD 2007:23). For the attainment and maintenance of ozone, in July 2016, YSAQMD adopted its 2016 Triennial Plan Update which examined air quality conditions and documents efforts made by YSAQMD to improve air quality (YSAQMD 2016c). In addition, as a part of the Sacramento federal ozone nonattainment area, YSAQMD works with the Sacramento Metropolitan Air Quality Management District to develop a regional air quality management plan under CAA requirements. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by the California Air Resources Board on November 16, 2017 (CARB 2017).

Toxic air contaminants and carbon monoxide are also localized impacts. As discussed in Section 3.0, "Approach to the Environmental Analysis," implementation of the CLUO is expected to have no impact.

The General Plan EIR identified significant and unavoidable cumulative impacts for ozone and particulate matter from implementation of planned land use activities (Yolo County 2009). Other air quality and odor impacts were identified as less than significant.

The nine development agreements projects would convert existing outdoor cannabis cultivation to indoor and mixed-light cultivation as well as new processing and nursery facilities that would involve construction of greenhouses and buildings that would contribute to air pollutant emissions during construction as well as odor impacts. Operational emissions would be similar to existing cannabis operations occurring on these sites as well as existing agricultural uses that are replaced by expanded cannabis uses.

Section 3.3, "Air Quality and Odor" identifies odor impacts as generally localized effects that are affected by many variables including topography and meteorology. The CLUO would establish odor control regulations that require odor management and set thresholds for acceptable vs nuisance odor. Odors must be controlled at the property line to a dilution-to-threshold ratio (D/T) of seven parts clean or filtered air to one part odorous air (7 D/T) or less. The proposed CLUO requires the development of an Odor Control Plan (CLUO Section 8-2.1410[D][2]) for each operation and identifies a process of corrective actions for nuisance odor conditions(CLUO Section 8-2.1408[CC] and 8-2.1408[DD]). Notwithstanding the implementation of these regulations, the potential for impacts to occur is conservatively identified as significant and unavoidable because:

- Cannabis remains a controversial activity.
- Some neighbors have expressed that they are very sensitive to the odor and find it to be highly objectionable.
- The proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations.
- Odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact AQ-1 and AQ-2, criteria air pollutant and precursor emissions generated from this ancillary use of the parcel would not exceed YSAQMD thresholds and would not result in air quality impacts that could contribute to cumulative impacts.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative air quality impacts but would conservatively result in cumulatively considerable contributions to cumulative odor impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to result in construction-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from the relocation of cannabis cultivation sites as described in Impact AQ-2. Construction emissions associated with relocated sites were quantified and are shown in Table 4-2 by license type. To be conservative, it was assumed that construction of all relocated sites could be constructed simultaneously.

Table 4-2 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors for Relocated Cultivation Sites – Alternative 1 (2020)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	3.4	5.8	54	30
Mixed-Light	9.2	9.1	87	44
Total	**12.6**	**15.0**	**141**	**74**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Relocated cultivation sites were based on County GIS data.

For analysis purposes, it was assumed that no new indoor cultivation sites would be constructed.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Impact AQ-2, all individual sites that are permitted under the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.1408(L).

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. Architectural coatings are the only source of ozone precursors associated with construction. All architectural coatings applied to cannabis sites would be required to comply with YSAQMD regulations for VOC content.

Thus, the project construction activities would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 4-3. Table 4-3 also provides total emissions for Alternative 1 that assumes all existing and eligible cultivation sites are in operation at the same time.

Table 4-3 Cumulative Operational Emissions of Criteria Air Pollutants and Precursors – Alternative 1 (2020)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	13.4	4.9	3	2
Mixed-Light	7.0	1.3	1	1
Indoor	0.4	0.1	<1	<1
Total	**20.9**	**6.3**	**3**	**3**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Impact AQ-3, cultivation sites are required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Sections 8-2.1408(K) and 8-2.1408(L) of the CLUO would reduce dust emissions and would require compliance with YSAQMD rules. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306.

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. There is no anticipated graphic art printing associated with cannabis sites, nor are process boilers anticipated to be used at cultivation sites. Thus, the project operation would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Because there is no increase in VMT associated with Alternative 1 (see Section 3.14, "Transportation and Circulation," for further discussion of VMT), implementation of the project would not conflict with transportation control measures outlined in the Sacramento Regional Ozone Attainment and Reasonable Further Progress Plan.

Cannabis cultivation operations are considered agricultural uses. The General Plan EIR air quality analysis considered continued agricultural operations in the County in addition to planned growth. Alternative 1 air pollutant emissions would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable**.

<u>Alternative 2: All License Types with Moderate Limits</u>

Based on the assumptions for Alternative 2, construction emissions associated with relocated sites were quantified and are shown in Table 4-4 by cannabis use type. To be conservative, it was assumed that construction of all cannabis uses could be constructed simultaneously.

Table 4-4 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors – Alternative 2 (2021)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	12.6	21.9	201	112
Mixed-Light	10.1	10.1	96	49
Cultivation Total	*22.7*	*32.0*	*297*	*161*
Noncultivation				
Nurseries	5.6	5.6	102	60
Processing	0.4	1.8	7	4
Manufacturing	1.1	7.0	27	18
Testing	0.3	2.4	7	5
Distribution	0.4	3.4	13	9
Retail	0.1	0.7	3	2
Microbusiness	0.2	1.7	7	4
Noncultivation Total	*8.2*	*22.6*	*165*	*102*
Total	**30.9**	**54.6**	**462**	**263**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

For analysis purposes, it was assumed that no new indoor cultivation sites would be constructed.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Impact AQ-2, all individual sites that are permitted under the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.140(L). Implementation of these required dust control measures are included in the emissions modeling shown in Table 4-4.

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. Architectural coatings are the only source of ozone precursors associated with construction. All architectural coatings applied to cannabis sites would be required to comply with YSAQMD regulations for VOC content. Thus, the project construction activities would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 4-5. Table 4-5 also provides total emissions for Alternative 2 that assumes all cannabis sites are in operation at the same time.

As discussed under Impact AQ-3, cannabis uses are required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Sections 8-2.1408(K) and 8-2.1408(L) of the CLUO would reduce dust emissions and would require compliance with YSAQMD rules. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306.

YSAQMD's 2016 Triennial Assessment and Plan Update includes three measures to reduce ozone emissions through the regulation of architectural coatings, printing processes for graphic arts, and process boilers. There is no anticipated graphic art printing associated with cannabis sites, nor are process boilers

anticipated to be used at cultivation nor noncultivation sites. Thus, the project operation would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Table 4-5 Cumulative Operational Emissions of Criteria Air Pollutants and Precursors – Alternative 2 (2022)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	13.6	4.9	3	3
Mixed-Light	7.6	1.4	1	9
Indoor	0.4	0.1	0	0
Cultivation Total	*21.6*	*6.4*	*3*	*3*
Noncultivation				
Nurseries	3.3	0.5	<1	<1
Processing	7.6	1.4	<1	<1
Manufacturing	0.4	1.6	1	1
Testing	0.1	0.4	<1	<1
Distribution	0.1	0.8	<1	<1
Retail	<1	0.2	<1	<1
Microbusiness	0.1	0.4	<1	<1
Noncultivation Total	*4.3*	*4.2*	*2*	*2*
Total	**25.9**	**10.6**	**6**	**5**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

There are no land use conversions associated with implementation of the proposed CLUO and associated cannabis uses that are not already covered in the General Plan EIR. Outdoor cultivation would occur on agricultural land similar to other agricultural crops. Cannabis manufacturing would be restricted to land designated Agricultural Industrial or Industrial land uses. Cannabis retail would be limited to land designated Commercial and Industrial, etc. Therefore, VMT would not change from what could result under existing planned conditions as analyzed in the General Plan EIR. Because there is no increase in VMT associated with Alternative 2 (see Section 3.14, "Transportation and Circulation," for further discussion of VMT), implementation of the project would not conflict with transportation control measures outlined in the Sacramento Regional Ozone Attainment and Reasonable Further Progress Plan.

Cannabis operations are considered agricultural uses. The General Plan EIR air quality analysis considered continued agricultural operations in the County in addition to planned growth. Alternative 2 air pollutant emissions would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable**.

Alternative 3: All License Types with High Limits

Based on the assumptions for Alternative 3, construction emissions associated with relocated sites were quantified and are shown in Table 4-6 by cannabis use type. To be conservative, it was assumed that development of all cannabis uses would be constructed over two years.

Table 4-6 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors – Alternative 3 (2021-2022)

Cannabis Use	ROG (tons/year)		NO_X (tons/year)		PM_{10} (lb/day)		$PM_{2.5}$ (lb/day)	
	2021	2022	2021	2022	2021	2022	2021	2022
Cultivation								
Outdoor	9.8	20.8	17.1	36.3	157	333	87	185
Mixed-Light	7.1	15.0	7.0	14.9	67	142	34	72
Indoor	0.4	0.8	0.7	1.5	6	14	4	9
Cultivation Total	*17.2*	*36.7*	*24.8*	*52.7*	*230*	*489*	*125*	*267*
Noncultivation								
Nurseries	3.5	7.6	3.6	7.6	65	139	38	81
Processing	0.3	0.6	1.1	2.4	4	9	3	6
Manufacturing	0.7	1.5	4.5	9.5	17	36	11	23
Testing	0.2	0.5	1.5	3.3	4	9	3	6
Distribution	0.3	0.6	2.2	4.7	9	18	5	11
Retail	0.1	0.1	0.4	1.0	2	4	1	2
Microbusiness	0.2	0.3	1.1	2.4	4	9	3	6
Noncultivation Total	*5.3*	*11.2*	*14.5*	*30.8*	*106*	*225*	*63*	*134*
Total	**22.5**	**47.9**	**39.2**	**83.5**	**335**	**714**	**190**	**406**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Alternative 2, all individual sites that are permitted under the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.140(L). Implementation of these required dust control measures are included in the emissions modeling shown in Table 4-6. Cannabis uses would also be required with YSAQMD regulations for VOC content. Thus, the project construction activities would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 4-7. Table 4-7 also provides total emissions for Alternative 3 that assumes all cannabis sites are in operation at the same time.

As discussed in Alternative 2, cannabis uses are required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Sections 8-2.1408(K) and 8-2.1408(L) of the CLUO would reduce dust emissions and would require compliance with YSAQMD rules. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306. VMT would not change from what could result under existing planned conditions as analyzed in the General Plan EIR.

Cannabis operations are considered agricultural uses. The General Plan EIR air quality analysis considered continued agricultural operations in the County in addition to planned growth. Alternative 3 air pollutant emissions would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable**.

Table 4-7 Cumulative Operational Emissions of Criteria Air Pollutants and Precursors – Alternative 3 (2023)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	27.3	9.9	5	5
Mixed-Light	14.6	2.8	1	1
Indoor	1.1	0.1	<1	<1
Cultivation Total	*42.9*	*12.8*	*7*	6
Noncultivation				
Nurseries	6.6	1.0	<1	<1
Processing	0.4	0.8	<1	<1
Manufacturing	0.9	3.1	2	2
Testing	0.2	0.8	<1	<1
Distribution	0.3	1.5	1	1
Retail	0.1	0.3	<1	<1
Microbusiness	0.2	0.8	<1	<1
Noncultivation Total	*8.6*	*8.4*	*4*	*4*
Total	**51.5**	**21.2**	**11**	**10**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Based on the assumptions for Alternative 4, construction emissions associated with relocated sites were quantified and are shown in Table 4-8 by cannabis use type. To be conservative, it was assumed that development of all cannabis uses would be constructed at the same time, including assumed conversion of outdoor cultivation sites to mixed-light or indoor cultivation operations with the construction of greenhouses or indoor buildings.

Table 4-8 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors – Alternative 4 (2021)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Mixed Light	59.9	59.4	566	288
Indoor	5.0	8.8	81	54
Cultivation Total	*64.8*	*68.2*	*647*	*341*
Noncultivation				
Nurseries	5.6	5.6	102	60
Processing	0.4	1.8	7	4
Manufacturing	1.1	7.0	27	18
Testing	0.3	2.4	7	5
Distribution	0.4	3.4	13	9

Table 4-8 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors – Alternative 4 (2021)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Retail	0.1	0.7	3	2
Microbusiness	0.2	1.7	7	4
Noncultivation Total	*8.2*	*22.6*	*165*	*102*
Total	**73.1**	**90.9**	**812**	**443**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Alternative 2, all individual sites that are permitted under the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.140(L). Implementation of these required dust control measures are included in the emissions modeling shown in Table 4-8. Cannabis uses would also be required with YSAQMD regulations for VOC content. Thus, the project construction activities would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 4-9. Table 4-9 also provides total emissions for Alternative 4 that assumes all cannabis sites are in operation at the same time.

Table 4-9 Cumulative Operational Emissions of Criteria Air Pollutants and Precursors – Alternative 4 (2022)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Mixed-Light	36.7	7.0	3	3
Indoor	2.5	0.3	<1	<1
Cultivation Total	*39.3*	*7.4*	*3*	*3*
Noncultivation				
Nurseries	3.3	0.5	<1	<1
Processing	0.2	0.4	<1	<1
Manufacturing	0.4	1.6	1	1
Testing	0.1	0.8	<1	<1
Distribution	0.1	0.8	<1	<1
Retail	<0.1	0.2	<1	<1
Microbusiness	0.1	0.4	<1	<1
Noncultivation Total	*4.3*	*4.2*	*2*	*2*
Total	**43.6**	**11.5**	**5**	**5**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed in Alternative 2, cannabis uses are required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Sections 8-2.1408(K) and 8-2.1408(L) of the CLUO would reduce dust emissions and would require compliance with YSAQMD rules. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306. VMT would not change from what could result under existing planned conditions as analyzed in the General Plan EIR.

Cannabis operations are considered agricultural uses. The General Plan EIR air quality analysis considered continued agricultural operations in the County in addition to planned growth. Alternative 4 air pollutant emissions would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable**.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Based on the assumptions for Alternative 5, construction emissions associated with relocated sites were quantified and are shown in Table 4-10 by cannabis use type. To be conservative, it was assumed that construction of all cannabis uses would be constructed at the same time.

Table 4-10 Cumulative Construction-Generated Emissions of Criteria Air Pollutants and Precursors – Alternative 5 (2021)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	12.6	21.9	201	112
Mixed-Light	10.1	10.1	96	49
Cultivation Total	*22.7*	*32.0*	*297*	*161*
Noncultivation				
Nurseries	5.6	5.6	102	60
Processing	0.4	1.8	7	4
Manufacturing	1.1	7.0	27	18
Testing	0.3	2.4	7	5
Distribution	0.4	3.4	13	9
Microbusiness	0.2	1.7	7	4
Noncultivation Total	*8.1*	*21.9*	*162*	*100*
Total	**30.8**	**53.9**	**459**	**261**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

For analysis purposes, it was assumed that no new indoor cultivation sites would be constructed.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed under Alternative 2, all individual sites that are permitted under the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.140(L). Implementation of these required dust control measures are included in the emissions modeling shown in Table 4-10. Cannabis uses would also be required with YSAQMD regulations for VOC content. Thus, the project construction activities would not conflict with the 2016 Triennial Assessment and Plan Update that aims to reduce ozone precursor emissions.

Emissions of criteria air pollutants and ozone precursors associated with operation are shown by license type in Table 4-11. Table 4-11 also provides total emissions for Alternative 5 that assumes all cannabis sites are in operation at the same time.

Table 4-11 Cumulative Operational Emissions of Criteria Air Pollutants and Precursors – Alternative 5 (2022)

Cannabis Use	ROG (tons/year)	NO_X (tons/year)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Cultivation				
Outdoor	13.6	4.9	3	3
Mixed-Light	7.6	1.4	1	1
Indoor	0.4	0.1	<1	<1
Cultivation Total	*21.6*	*6.4*	*3*	*3*
Noncultivation				
Nurseries	3.3	0.5	<1	<1
Processing	0.2	0.4	<1	<1
Manufacturing	0.4	1.6	1	1
Testing	0.1	0.4	<1	<1
Distribution	0.1	0.8	<1	<1
Microbusiness	0.1	0.4	<1	<1
Noncultivation Total	*4.3*	*4.0*	*2*	*2*
Total	**25.9**	**10.5**	**5**	**5**

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day; N/A = not applicable.

Totals may not sum exactly due to rounding.

Source: Modeling conducted by Ascent Environmental in 2019

As discussed in Alternative 2, cannabis uses are required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Sections 8-2.1408(K) and 8-2.1408(L) of the CLUO would reduce dust emissions and would require compliance with YSAQMD rules. Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306. VMT would not change from what could result under existing planned conditions as analyzed in the General Plan EIR.

Cannabis operations are considered agricultural uses. The General Plan EIR air quality analysis considered continued agricultural operations in the County in addition to planned growth. Alternative 5 air pollutant emissions would not be greater than those evaluated in the General Plan EIR and **would not be cumulatively considerable**.

Odor Impacts - Alternatives 1 through 5

Odors with distinct odor characteristics, emanating from proximate sources, are generally not additive or amplified. However, odor with the same or similar odor characteristics, emanating from proximate sources may be additive. Therefore, multiple odor sources in a given geographic area would not necessarily increase the strength of an odor, although a higher frequency of odor detection would be expected. It is not possible to predict what specific cannabis plant strains would occur at proximate sources. As documented in Section 3.3, "Air Quality and Odors" under certain conditions, odor may be detected as much as two miles from the source, particularly where the odor is perceived as objectionable by the receptor.

As previously discussed, odor is affected by many variables including the specific site, the proposed activity, topography, and meteorology, among many others. The CLUO would establish odor control regulations that require odor management and set thresholds for acceptable vs nuisance odor. Odors must be controlled at the property line to a dilution-to-threshold ratio (D/T) of seven parts clean or filtered air to one part odorous air (7 D/T) or less. The proposed CLUO requires the development of an Odor Control Plan (CLUO Section 8-2.1410[D][2]) for each operation and identifies a process of corrective actions for nuisance odor conditions (CLUO Section 8-2.1408[CC] and 8-2.1408[DD]).

Despite these regulations and controls, the potential for cumulative odor impacts to occur as a result of adoption and implementation of the CLUO, including issuance of future Cannabis Use Permits, is conservatively identified as **cumulatively considerable and significant and unavoidable** for the same reasons considered in Section 3.3, "Air Quality and Odors." Namely cannabis remains a controversial activity, many neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

Therefore, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, may result in a **cumulatively considerable** contribution to cumulative odor impacts that would be **significant and unavoidable**. See Section 4.2, "Overconcentration," for analysis of the potential for odor impacts due to clustering of cannabis uses within smaller areas of the County.

IMPACT CUM-4: CONTRIBUTION TO CUMULATIVE BIOLOGICAL RESOURCE IMPACTS

The cumulative setting for some biological resources is countywide. However, depending on the resource, many biological resource impacts are site-specific rather than cumulative in nature.

The General Plan includes policies to protect habitats (e.g., wetlands, oak woodlands, grassland prairies, riparian habitat, aquatic habitat) and special-status species in the County. The General Plan EIR identified significant and unavoidable cumulative impacts to special-status species, habitat, and disruption of movement corridors from implementation of planned land use activities (Yolo County 2009).

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," could contribute to cumulative biological resource impacts from construction of new cannabis uses.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact BIO-1 through BIO-4, this ancillary use of the parcel would not result in biological resource impacts that could contribute to cumulative impacts.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative biological resource impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As identified in Impact BIO-1 through BIO-4, Alternative 1 assumed cannabis cultivation relocation activities involving 18 acres could result in potential special-status species and habitat impacts. The CLUO includes performance standards (including participation in the Yolo Habitat Conservation Plan/Natural Community Conservation Plan [HCP/NCCP]) that address special-status species, habitat impacts, and invasive plants in CLUO Sections 8-2.1408(A), 8-2.1408(D), 8-2.1408(OO), and 8-2.1408(RR). Operation of the cultivation sites are also subject to compliances with Terms 4, 10, 27, and 37 of Attachment A (General Requirements and Prohibitions) of State Water Resources Control Board (SWRCB) Order WQ 2019-0001-DWQ that also provide special-status species and habitat protection requirements. Implementation of the these requirements and Mitigation Measure BIO-1 would offset impacts to special-status species because it would require reconnaissance-level surveys of the activity footprint; identification of special-status species, sensitive communities, and special-status species habitat within the activity footprint; and protection, avoidance, and compensation for impacts on these species, habitats, and movement corridors in a manner

consistent with the Yolo HCP/NCCP as well as state and federal law. Cannabis uses fall within the categories of agricultural uses and supporting agricultural uses consistent with the General Plan and evaluated in the General Plan EIR. After implementation of Mitigation Measure BIO-1, the contribution to significant cumulative impacts to biological resources **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As identified in Impact BIO-1 through BIO-4, Alternative 2 assumed cannabis cultivation relocation activities and new cannabis uses that would involve approximately 164 acres could result in potential special-status species and habitat impacts. Similar to Alternative 1, compliance with CLUO performance standards and Mitigation Measure BIO-1 would offset Alternative 2's cumulative impacts to biological resources. Therefore, the contribution to significant cumulative impacts to biological resources **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

As identified in Impact BIO-1 through BIO-4, Alternative 3 assumed cannabis cultivation relocation activities and new cannabis uses that would involve approximately 379 acres could result in potential special-status species and habitat impacts. Similar to Alternative 1, compliance with CLUO performance standards and Mitigation Measure BIO-1 would offset Alternative 3's cumulative impacts to biological resources. Therefore, the contribution to significant cumulative impacts to biological resources **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As identified in Impact BIO-1 through BIO-4, Alternative 4 assumed cannabis cultivation relocation activities and new cannabis uses that would involve approximately 122 acres could result in potential special-status species and habitat impacts. Similar to Alternative 1, compliance with CLUO performance standards and Mitigation Measure BIO-1 would offset Alternative 4's cumulative impacts to biological resources. Therefore, the contribution to significant cumulative impacts to biological resources **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As identified in Impact BIO-1 through BIO-4, Alternative 5 assumed cannabis cultivation relocation activities and new cannabis uses that would involve approximately 163 acres could result in potential special-status species and habitat impacts. Similar to Alternative 1, compliance with CLUO performance standards and Mitigation Measure BIO-1 would offset Alternative 5's cumulative impacts to biological resources. Therefore, the contribution to significant cumulative impacts to biological resources **would not be cumulatively considerable** under Alternative 5.

IMPACT CUM-5: CONTRIBUTION TO CUMULATIVE CULTURAL RESOURCE IMPACTS

While some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site are generally not made worse by impacts from another project to a cultural resource at another site. Rather the resources and the effects upon them are generally independent. A possible exception to this would be a cultural resource that represents the last known example of its kind. However, as discussed below, the proposed CLUO and other applicable requirements would ensure disclosure, analysis, and avoidance or mitigation through a discretional use permit process.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," could contribute to cumulative cultural resource impacts from the development of new cannabis uses. The General Plan EIR identified that implementation of the General Plan would not result in cumulative considerable impacts to cultural resources (Yolo County 2009).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impacts CULT-1 through CULT-3, this ancillary use of the parcel would not result in cultural resource impacts that could contribute to cumulative impacts.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative cultural resource impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Relocation of cannabis cultivation sites under Alternative 1 could disturb 18 acres that may contain cultural resources. As identified in CULT-1 through CULT-4, existing and relocated cultivation sites would be subject to CLUO Sections 8-2.1408(H), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential cultural resources in the area and site plans may be required to move or be redesigned to protect the resource consistent with General Plan policies CO-4.12 and CO-4.13 and actions CO-A63 through CO-A66. In addition to the CLUO, cannabis cultivation sites are required to comply with the SWRCB Attachment A (General Requirements and Prohibitions) of Order WQ 2019-0001-DWQ. Term 21 of the General Requirements and Prohibitions requires that records searches be performed through the applicable CHRIS information center before land-disturbing activities for cultivation operations. Any positive results identified in the records search would need to be further evaluated. Term 22 requires documentation and protection of any discovered archaeological resources during cultivation operations. These requirements would offset contributions to the cumulative loss of cultural resources consistent with the General Plan. The contribution to significant cumulative impacts to cultural resources **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Cannabis uses under Alternative 2 could disturb 164 acres that may contain cultural resources. Similar to Alternative 1, compliance with CLUO performance standards and the requirements of SWRCB Order WQ 2019-0001-DWQ would offset Alternative 2's cumulative impacts to cultural resources. Therefore, the contribution to significant cumulative impacts to cultural resources **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

Cannabis uses under Alternative 3 could disturb 379 acres that may contain cultural resources. Similar to Alternative 1, compliance with CLUO performance standards and the requirements of SWRCB Order WQ 2019-0001-DWQ would offset Alternative 3's cumulative impacts to cultural resources. Therefore, the contribution to significant cumulative impacts to cultural resources **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Cannabis uses under Alternative 4 could disturb 122 acres that may contain cultural resources. Similar to Alternative 1, compliance with CLUO performance standards and the requirements of SWRCB Order WQ 2019-0001-DWQ would offset Alternative 4's cumulative impacts to cultural resources. Therefore, the contribution to significant cumulative impacts to cultural resources **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Cannabis uses under Alternative 5 could disturb 163 acres that may contain cultural resources Similar to Alternative 1, compliance with CLUO performance standards and the requirements of SWRCB Order WQ 2019-0001-DWQ would offset Alternative 5's cumulative impacts to cultural resources. Therefore, the contribution to significant cumulative impacts to cultural resources **would not be cumulatively considerable** under Alternative 5.

IMPACT CUM-6: CONTRIBUTION TO CUMULATIVE ENERGY IMPACTS

The geographic area considered for cumulative impacts related to energy use includes the service area for PG&E and Valley Clean Energy. As noted in Section 3.6, "Energy," PG&E provides the physical infrastructure in the region that is utilized by Western Area Power Authority. PG&E employs various programs and mechanisms to support provision of these services to new development; various utilities charge connection fees and re-coup costs of new infrastructure through standard billings for services. The project, in combination with other development in Yolo and Solano Counties, would contribute to the increased demand for energy, however, service providers PG&E and Valley Clean Energy are anticipated to have adequate energy capacity to serve these land uses.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to cumulative energy demands from new cannabis uses. The General Plan EIR identified that planned land use activities would result in significant and unavoidable cumulative impacts to energy use (Yolo County 2009).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact ENE-1, this ancillary use of the parcel would not result in energy impacts that could contribute to cumulative impacts.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative energy impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 would not create new energy demands that could contribute to cumulative energy impacts. The CLUO requires all cultivation sites to procure at least 50 percent of their energy demand from renewable sources. This can be achieved through on-site renewable energy systems or enrollment in the Valley Clean Energy Alliance as described in Section 8-2.140(O) of the CLUO. Further, as described in Section 3.6.2, "Regulatory Setting," CCR Sections 8203 and 8305 set forth renewable energy requirement for new and relicensed sites. Under these requirements, all sites seeking license renewals must meet the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewables Portfolio Standard. Table 4-12 provides estimates of Alternative 1's energy demands from operation of existing and eligible cultivation sites.

Table 4-12 Cumulative Construction and Operational Energy Consumption– Alternative 1

Cannabis Use	Construction	Operation			
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation					
Outdoor	5,791	44,621	12,476	0	34,988
Mixed Light	18,141	76,198	11,768	0	37,234
Indoor	0	0	700	0	4,618
Total	**23,932**	**120,819**	**24,943**	**0**	**76,839**

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

Cleaner vehicles that rely on alternative fuels are increasing throughout Yolo County and California, and through the state's Advanced Clean Car Program, more zero emission and electric vehicles are anticipated to become available. Additionally, the Low Carbon Fuel Standard is a state regulation that reduces the carbon intensity of fuels used in vehicles. Therefore, the impact on energy **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Table 4-13 provide estimates of energy demands from operation of assumed cannabis uses under Alternative 2.

Table 4-13 Cumulative Construction and Operational Energy Consumption– Alternative 2

Cannabis Use	Construction	Operation			
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation					
Outdoor	21,718	167,329	12,674	0	35,543
Mixed Light	19,955	83,818	12,673	0	40,098
Indoor	0	0	700	0	4,618
Noncultivation					
Nursery	12,552	49,456	5,619	0	4,165
Processing	700	14,185	150	139	4,165
Manufacturing	2,141	52,804	458	706	16,661
Testing	371	13,666	116	183	4,165
Distribution	412	26,402	82	131	8,330
Retail	214	5,466	55	40	1,666
Microbusiness	371	13,601	66	98	4,165
Total	**58,432**	**426,728**	**32,592**	**1,296**	**123,577**

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

The CLUO and state regulations identified above under Alternative 1 include renewable energy requirements that would apply to cultivation and noncultivation uses under this alternative as well. State vehicle regulations discussed under Alternative 1 would also reduce vehicle energy use for Alternative 2.

Based on the above, potential energy consumption under Alternative 2 would not contribute to cumulative impacts associated with the wasteful, inefficient, or unnecessary consumption of energy. This alternative would also not result in energy impacts greater than considered in the General Plan EIR because it would commit use to renewable energy sources under CLUO Section 8-2.1408(O). The impact on energy **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

Table 4-14 provides estimates of energy demand under Alternative 3 from assumed operation of cultivation and noncultivation uses.

Table 4-14 Cumulative Construction and Operational Energy Consumption– Alternative 3

Cannabis Use	Construction		Operation		
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation					
Outdoor	52,847	407,167	25,347	0	71,086
Mixed Light	43,538	182,876	24,440	0	77,332
Indoor	2,059	17,147	1,750	0	11,544
Noncultivation					
Nursery	25,104	98,912	11,238	0	8,330
Processing	1,400	28,370	299	278	8,330
Manufacturing	4,282	105,608	915	1,411	33,322
Testing	741	27,332	231	366	8,330
Distribution	823	52,805	165	261	16,661
Retail	428	10,933	111	80	3,332
Microbusiness	741	27,203	132	196	8,330
Total	**131,963**	**958,351**	**64,628**	**2,592**	**246,599**

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

The CLUO and state regulations identified above under Alternative 1 include renewable energy requirements that would apply to cultivation and noncultivation uses under this alternative as well. State vehicle regulations discussed under Alternative 1 would also reduce vehicle energy use for Alternative 3.

Based on the above, potential energy consumption under Alternative 3 would not contribute to cumulative impacts associated with the wasteful, inefficient, or unnecessary consumption of energy. This alternative would also not result in energy impacts greater than considered in the General Plan EIR because it would commit use to renewable energy sources under CLUO Section 8-2.1408(0). The impact on energy **would not be cumulatively considerable** under Alternative 3.

<u>Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types</u>

Table 4-15 provides estimates of energy demand under Alterative 4 from assumed operation of cultivation and noncultivation uses.

Table 4-15 Cumulative Construction and Operational Energy Consumption– Alternative 4

Cannabis Use	Construction	Operation			
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation					
Mixed Light	117,917	495,289	61,554	0	194,763
Indoor	8,237	68,587	4,200	0	27,706
Noncultivation					
Nursery	12,552	49,456	5,619	0	4,165
Processing	700	14,185	150	139	4,165
Manufacturing	2,141	52,804	458	706	16,661

Table 4-15 Cumulative Construction and Operational Energy Consumption– Alternative 4

Cannabis Use	Construction	Operation			
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Testing	371	13,666	116	183	4,165
Distribution	412	26,402	82	131	8,330
Retail	214	5,466	55	40	1,666
Microbusiness	371	13,601	66	98	4,165
Total	**142,913**	**739,456**	**72,233**	**1,198**	**261,621**

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

The CLUO and state regulations identified above under Alternative 1 include renewable energy requirements that would apply to cultivation and noncultivation uses under this alternative as well. State vehicle regulations discussed under Alternative 1 would also reduce vehicle energy use for Alternative 4.

Based on the above, potential energy consumption under Alternative 4 would not contribute to cumulative impacts associated with the wasteful, inefficient, or unnecessary consumption of energy. This alternative would also not result in energy impacts greater than considered in the General Plan EIR because it would commit use to renewable energy sources under CLUO Section 8-2.1408(0).

The impact on energy **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Table 4-16 provides estimates of energy demand under Alternative 5 from assumed operation of cultivation and noncultivation uses.

Table 4-16 Cumulative Construction and Operational Energy Consumption– Alternative 5

Cannabis Use	Construction	Operation			
	Gasoline (gallons)	Diesel (gallons)	Electricity (megawatt-hours/year)	Natural Gas (million British thermal units/year)	Diesel (gallons/year)
Cultivation					
Outdoor	21,718	167,329	12,674	0	35,543
Mixed Light	19,955	83,818	12,673	0	40,098
Indoor	0	0	700	0	4,618
Noncultivation					
Nursery	12,552	49,456	5,619	0	4,165
Processing	700	14,185	150	139	4,165
Manufacturing	2,141	52,804	458	706	16,661
Testing	371	13,666	116	183	4,165
Distribution	412	26,402	82	131	8,330
Microbusiness	371	13,601	66	98	4,165
Total	**58,218**	**421,261**	**32,536**	**1,256**	**121,911**

Notes: Diesel use associated with off-road equipment and back-up generator use.

Source: Calculations by Ascent Environmental in 2019

The CLUO and state regulations identified above under Alternative 1 include renewable energy requirements that would apply to cultivation and noncultivation uses under this alternative as well. State vehicle regulations discussed under Alternative 1 would also reduce vehicle energy use for Alternative 5.

Based on the above, potential energy consumption under Alternative 5 would not contribute to cumulative impacts associated with the wasteful, inefficient, or unnecessary consumption of energy. This alternative would also not result in energy impacts greater than considered in the General Plan EIR because it would commit use to renewable energy sources under CLUO Section 8-2.1408(O). The impact on energy **would not be cumulatively considerable** under Alternative 5.

IMPACT CUM-7: CONTRIBUTION TO CUMULATIVE GEOLOGY AND SOIL IMPACTS

Geology and mineral resource impacts are generally site specific rather than cumulative in nature. Each site would be subject to site development standards, construction standards, and CLUO requirements (Section 8-2.1408[V]) regarding grading and clearing. This is discussed in detail in Section 3.7, "Geology and Soils." As identified in GEO-4, none of the CLUO alternatives would result in loss of access to known mineral resources in the County.

While some paleontological resources could have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a paleontological find at one project site are generally not made worse by impacts from another project to a paleontological resource at another site. Rather the resources and the effects upon them are generally independent. As discussed below, the proposed CLUO and other applicable requirements would ensure disclosure, analysis, and avoidance or mitigation through a discretional use permit process.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," could contribute to potential cumulative paleontological resource impacts from development of new cannabis uses. The General Plan EIR identified no cumulative considerable impacts to paleontological resources from planned land use activities (Yolo County 2009).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact GEO-3, this ancillary use of the parcel would not result in paleontological impacts that could contribute to cumulative impacts.

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative geology or soil impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Relocation activities would include closure and restoration of the existing cultivation sites and construction of new cultivation sites that is assumed to disturb approximately 18 acres that may contain paleontological resources. Cannabis cultivation operators would be required to comply with Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which requires a site survey to determine the potential for paleontological resources and development of a mitigation plan if merited, to protect identified paleontological resources This would offset contributions to cumulative impacts on paleontological resources. Thus, paleontological resource impacts **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Alternative 2 assumed cannabis uses could disturb approximately 164 acres that may contain paleontological resources. Compliance with CLUO performance standards identified in Alternative 1 above would offset cumulative impacts to paleontological resources for this alternative as well. Therefore, the contribution to significant cumulative impacts to paleontological resources **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

Alternative 3 assumed cannabis uses could disturb approximately 379 acres that may contain paleontological resources. Compliance with CLUO performance standards identified in Alternative 1 above would offset cumulative impacts to paleontological resources for this alternative as well. Therefore, the contribution to significant cumulative impacts to paleontological resources **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumed cannabis uses could disturb approximately 122 acres that may contain paleontological resources. Compliance with CLUO performance standards identified in Alternative 1 above would offset cumulative impacts to paleontological resources for this alternative as well. Therefore, the contribution to significant cumulative impacts to paleontological resources **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Alternative 5 assumed cannabis uses could disturb approximately 163 acres that may contain paleontological resources. Compliance with CLUO performance standards identified in Alternative 1 above would offset cumulative impacts to paleontological resources for this alternative as well. Therefore, the contribution to significant cumulative impacts to paleontological resources **would not be cumulatively considerable** under Alternative 5.

IMPACT CUM-8: CONTRIBUTION TO CUMULATIVE GREENHOUSE GASES AND CLIMATE CHANGE IMPACTS

The discussions of GHG emissions generated from implementation of the CLUO for each of the five alternatives under Impact GHG-1 in Section 3.8, "Greenhouse Gas Emissions and Climate Change," is inherently a cumulative impact discussion. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions, which is a significant cumulative impact. The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to greenhouse gas emissions. The General Plan EIR identified significant and unavoidable cumulative impacts associated with GHG emissions (Yolo County 2009).

As discussed under Impact GHG-1, the CLUO includes requirements for renewable energy procurement, energy-efficient lighting, water conservation, and drought tolerant landscaping. Implementation of Mitigation Measure GHG-1 would ensure compliance with the Yolo County CAP, resulting in required reduction of GHG emissions. With this mitigation measure, all alternatives under the CLUO would align with the Yolo County CAP and 2017 Scoping Plan, the applicable plans and policies adopted for the purpose of reducing GHG emissions.

Adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, **would not result in a cumulatively considerable contribution** to cumulative GHG emissions or climate change.

IMPACT CUM-9: CONTRIBUTION TO CUMULATIVE HAZARDS AND HAZARDOUS MATERIAL IMPACTS

Although some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are more typically isolated to a small area, such as leaking underground storage tank sites or release at individual businesses. These relatively isolated areas of contamination typically do not interact in a cumulative manner with other sites of hazardous materials contamination. Impacts related to emergency vehicle access and evacuation are considered site specific and are not cumulative. The potential for airport hazards are associated with site specific conditions in relation to particular airports and are not considered cumulative impacts.

No significant cumulative wildfire or fire protection service impacts from implementation of the General Plan were identified in the General Plan EIR (Yolo County 2009). As shown in Exhibits 3.9-8 through 3.9-12, cannabis uses assumed under the CLUO alternatives that are located in moderate fire hazard severity hazards consist of agricultural and rural land uses that would not contribute significantly to cumulative wildfire risk. As identified in Impact HAZ-6, cannabis uses under all alternatives would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards. Compliance with these requirements would offset contributions to potential wildfire hazards.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," could contribute to potential cumulative hazards or hazardous materials impacts from development of new cannabis uses. The General Plan EIR identified no cumulative considerable impacts to hazards or hazardous materials from planned land use activities (Yolo County 2009).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. For the same reasons given in Section 3.9, this ancillary use of the parcel would not result in hazards or hazardous materials impacts that could contribute to cumulative impacts.

Therefore, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, **would not result in a cumulatively considerable** contribution to cumulative hazards or hazardous materials impacts.

IMPACT CUM-10: CONTRIBUTION TO CUMULATIVE HYDROLOGY AND WATER QUALITY IMPACTS

The cumulative context for hydrologic impacts is the unincorporated area of Yolo County and the regional groundwater basins. CLUO impacts to hydrology and water quality are addressed in Section 3.10, "Hydrology and Water Quality." There are potential cumulative impacts to water quality, groundwater resources, and flooding in the County and associated watersheds and groundwater subbasins to which implementation of the CLUO could contribute. These topics are addressed separately below and are based on the project impact analysis provided in Impact HYDRO-1, HYDRO-2, and HYDRO-3.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to cumulative hydrologic impacts from the new cannabis uses. The General Plan EIR identified significant and unavoidable cumulative impacts to hydrology and water quality (Yolo County 2009).

As described further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative hydrology or water quality impacts.

Water Quality

As described in Section 3.10, "Hydrology and Water Quality," there are waterways in the County listed on the 303(d) list are reported to contain excessive levels of various pesticides and herbicide, such as group A pesticides, malathion, chlordane, DDT, and dieldrin (see Table 3.10-1 and Exhibit 3.10-2).[1] Past and on-going agricultural practices have likely contributed to this contamination. Future land use activities have the potential to contribute to this cumulative impact.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact HYDRO-1, this ancillary use of the parcel would not result in water quality impacts that could contribute to cumulative impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As identified in Impact HYDRO-1, Alternative 1 assumed cannabis cultivation relocation activities involving 18 acres could result in construction and operational water quality impacts that could contribute to cumulative water quality impacts in impaired waterways identified in Table 3.10-1. These potential impacts would be offset through compliance requirements of SWRCB Order WQ 2019-0001-DWQ. and Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, the Yolo County ILRP, and the County's Stormwater Management and Discharge Ordinance and Code. These standards would require on-site erosion control, use of construction and operational BMPs, and to route discharge drainage and stormwater into a County-approved on-site stormwater management system. Compliance with these requirements would offset project contributions to water quality impacts. Thus, this impact **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As identified in Impact HYDRO-1, Alternative 2 assumed cannabis uses involving 164 acres could result in construction and operational water quality impacts that could contribute to cumulative water quality impacts in impaired waterways identified in Table 3.10-1. Compliance with SWRCB Order WQ 2019-0001-DWQ, CLUO performance standards, and other County standards identified under Alternative 1 would offset cumulative contributions to water quality impacts for this alternative as well. Thus, this impact **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

As identified in Impact HYDRO-1, Alternative 3 assumed cannabis uses involving 379 acres could result in construction and operational water quality impacts that could contribute to cumulative water quality impacts in impaired waterways identified in Table 3.10-1. Compliance with SWRCB Order WQ 2019-0001-DWQ, CLUO performance standards, and other County standards identified under Alternative 1 would offset cumulative contributions to water quality impacts for this alternative as well. Thus, this impact **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As identified in Impact HYDRO-1, Alternative 4 assumed cannabis uses involving 122 acres could result in construction and operational water quality impacts that could contribute to cumulative water quality impacts in impaired waterways identified in Table 3.10-1. Compliance with SWRCB Order WQ 2019-0001-DWQ, CLUO performance standards, and other County standards identified under Alternative 1 would offset

[1] Section 303(d) of the CWA requires the identification of water bodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired water bodies), and requires development of a total maximum daily load (TMDL) for each listing.

cumulative contributions to water quality impacts for this alternative as well. Thus, this impact **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As identified in Impact HYDRO-1, Alternative 5 assumed cannabis uses involving 163 acres could result in construction and operational water quality impacts that could contribute to cumulative water quality impacts in impaired waterways identified in Table 3.10-1. Compliance with SWRCB Order WQ 2019-0001-DWQ, CLUO performance standards, and other County standards identified under Alternative 1 would offset cumulative contributions to water quality impacts for this alternative as well. Thus, this impact **would not be cumulatively considerable** under Alternative 5.

Groundwater

Urban, rural, and agricultural land uses in the County depend upon a reliable water supply, a combination of both groundwater and surface water. Farmers rely on groundwater for approximately 40 percent of their supply in a normal year but rely more heavily on groundwater during drought years. Future growth of the cities and rural communities and changes in crops grown in the County that have higher irrigation demands than existing agricultural operations could result in cumulative impacts on groundwater resources. Aquifer overdraft (or overpumping) can cause permanent damage to an aquifer if the aquifer materials settle, reducing its future storage capacity. In addition, overdraft can cause, and in the past in Yolo County has caused, land subsidence at the ground surface. It is unknown if the deep aquifers in Yolo County are able to sustain anticipated groundwater pumping demands. The best available information related to groundwater supplies consists of records of groundwater elevation in the County, which are available beginning in 1953 (see Exhibit 3.10-4). A groundwater sustainability plan is currently under preparation by the Yolo Subbasin Groundwater Agency.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact HYDRO-2, this ancillary use of the parcel would not result in groundwater impacts that could contribute to cumulative impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

As described in HYDRO-2, Alternative 1 assumes no new cannabis cultivation sites in the County and thus no increase in existing groundwater demands. Existing and eligible cannabis cultivation water demand is estimated to be 132 acre-feet per year (afy) as shown in Table 3.10-10. Total cultivation water demand is 1.69 afy per acre of cultivation area. This groundwater demand per acre of cultivation area is below the countywide agricultural per acre water demands that have ranged 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3) and would be within the cumulative groundwater impact analysis in the General Plan EIR. This impact **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Table 3.10-11 estimates total water demand for cannabis uses under Alternative 2 at 211 afy. It is assumed that new cannabis uses would be located on farmlands that already use groundwater and have existing irrigation demands within the range of crop uses identified in Table 3.10-3. Total water demand for assumed cultivation uses is 1.70 afy per acre and 0.75 afy per acre for noncultivation uses. This groundwater demand per acre is below the County's typical agricultural per acre water demands identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Alternative 2 could create approximately 123 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses. This increase in impervious surface is not large enough to substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Thus, Alternative 2 would result in reduced water demands per acre as compared to existing agricultural operations and would not result in a contribution to a decrease groundwater supplies or interfere substantially with groundwater recharge under cumulative conditions. This impact **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

Table 3.10-12 estimates total water demand under Alternative 3 at 424 afy. It is assumed that new cannabis uses would be located on farmlands that already use groundwater and have existing irrigation demands within the range of crop uses identified in Table 3.10-3. Total water demand for assumed cultivation uses is 1.71 afy per acre and 0.76 afy per acre for noncultivation uses. This groundwater demand per acre is below the County's typical agricultural per acre water demands identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Alternative 3 could create approximately 244 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses. This increase in impervious surface is not large enough to substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Thus, Alternative 3 would result in reduced water demands per acre as compared to existing agricultural operations and would not result in a contribution to a decrease groundwater supplies or interfere substantially with groundwater recharge under cumulative conditions. This impact **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Table 3.10-13 estimates total water demand under Alternative 4 (including water demand from existing cultivation sites and the conversion to mixed-light or indoor cultivation operations) at 314 afy. It is assumed that new cannabis uses would be located on farmlands that already use groundwater and have existing irrigation demands within the range of crop uses identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Total water demand for assumed cultivation uses is 2.99 afy per acre and 0.75 afy per acre for noncultivation uses. This groundwater demand per acre is below the County's typical agricultural per acre water demands identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Alternative 4 could create approximately 209 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses. This increase in impervious surface is not large enough to substantially interfere with countywide groundwater infiltration that occurs approximately 545,000 acres of land designated as Agriculture under the General Plan.

Thus, Alternative 4 would result in reduced water demands per acre as compared to existing agricultural operations and would not result in a contribution to a decrease groundwater supplies or interfere substantially with groundwater recharge under cumulative conditions. This impact **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Table 3.10-14 estimates total water demand under Alternative 5 (including water demand from existing cultivation sites) at 208 afy. It is assumed that new cannabis uses would be located on farmlands that already use groundwater and have existing irrigation demands within the range of crop uses identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Total water demand for assumed cultivation uses is 1.70 afy per acre and 0.73 afy per acre for noncultivation uses. This groundwater demand per acre is below the County's typical agricultural per acre water demands identified in Table 3.10-3 and would be within the cumulative groundwater impact analysis in the General Plan EIR. Alternative 5 could create approximately 123 acres of impervious surfaces associated with buildings for cultivation and noncultivation uses. This increase in impervious surface is not large enough to substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

Thus, Alternative 5 would result in reduced water demands per acre as compared to existing agricultural operations and would not result in a contribution to a decrease groundwater supplies or interfere substantially with groundwater recharge under cumulative conditions. This impact **would not be cumulatively considerable** under Alternative 5.

Flooding

Exhibit 3.10-6 shows the extent of floodplain conditions in the unincorporated area of the County that includes most of the agricultural areas. Future land use activities and agricultural operations could create new impervious surfaces, buildings, and other improvements that could affect drainage flows that could alter and increase the extent of flooding conditions under cumulative conditions.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. As described in Impact HYDRO-3, this ancillary use of the parcel would not result in drainage or flooding impacts that could contribute to cumulative impacts.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the existing and eligible cannabis cultivation in the County (nine cultivation sites are assumed to relocate) and would not expand cannabis uses. Cultivation sites would be subject to the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Improvement Standard the flood protection ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Compliance with these standards would offset drainage impacts by ensuring that drainage is managed on each cannabis site and avoid contributing to cumulative drainage and flooding impacts in the County. This impact **would not be cumulatively considerable** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

As shown in Exhibits 2-5 and 3.10-6, approximately 20 new cannabis sites would be located near floodplain areas. Compliance with CLUO performance standards and other County standards identified under Alternative 1 would offset cumulative contributions to flooding impacts for this alternative as well. This impact **would not be cumulatively considerable** under Alternative 2.

Alternative 3: All License Types with High Limits

As shown in Exhibits 2-6 and 3.10-6, approximately 55 new cannabis sites would be located near floodplain areas. Compliance with CLUO performance standards and other County standards identified under Alternative 1 would offset cumulative contributions to flooding impacts for this alternative as well. This impact **would not be cumulatively considerable** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

As shown in Exhibits 2-7 and 3.10-6, approximately 45 new cannabis sites and new buildings associated with the conversion of outdoor cultivation to mixed-light or indoor operations would be located near floodplain areas. Compliance with CLUO performance standards and other County standards identified under Alternative 1 would offset cumulative contributions to flooding impacts for this alternative as well. This impact **would not be cumulatively considerable** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

As shown in Exhibits 2-8 and 3.10-6, approximately 22 new cannabis sites would be located near floodplain areas. Compliance with CLUO performance standards and other County standards identified under Alternative 1 would offset cumulative contributions to flooding impacts for this alternative as well. This impact **would not be cumulatively considerable** under Alternative 5.

IMPACT CUM-11: CONTRIBUTION TO CUMULATIVE LAND USE AND PLANNING IMPACTS

The cumulative context for land use impacts is the unincorporated area of Yolo County. Most land use impacts are localized impacts that affect individual communities, neighborhoods, and specific sites, and are not generally considered cumulative in nature. Impacts related to dividing a community are an example of this. The potential for growth inducement impacts as a result of adoption and implementation of the proposed CLUO are addressed in Chapter 6, "Other CEQA-Mandated Sections."

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to employment growth in the County from the new cannabis uses. The General Plan EIR identified significant and unavoidable cumulative land use and growth impacts from implementation of the General Plan.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Personal use outdoor cultivation would be an ancillary use to the residential parcel maintained by the residence. No additional employment would be generated that would contribute to cumulative impacts.

As shown in Table 3.11-1, Yolo, Sacramento, and Solano Counties combined have approximately 63,000 unoccupied dwelling units. SACOG estimates that the region's dwelling units will increase to 1,188,347 units by 2036 along with population (3,078,772), and employees (1,327,323) that may place housing pressure on cultivation conditions (Sacramento Area Council of Governments 2016). Depending on the alternative, this analysis assumes that implementation of the CLUO could generate up to 2,136 new permanent employees (Alternative 3). It is anticipated that these new jobs would come on-line at the end of 2022 based on review of cultivation activities and permit interest in the County. Based on current vacancy rates and anticipated extent of new dwelling units by 2036, there would be adequate housing opportunities in the region to accommodate employment generated under the CLUO and would not trigger the cumulative need to develop new housing beyond growth projections or what was evaluated in the General Plan EIR. This growth impact **would not be cumulatively considerable** under all the alternatives.

IMPACT CUM-12: CONTRIBUTION TO CUMULATIVE NOISE IMPACTS

Noise and vibration impacts are generally experienced locally and are not cumulative in nature. Stationary noise sources attenuate (reduce) over distance from the source. Increases in vehicle traffic could contribute cumulative traffic noise along roadways within the County.

The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to cumulative traffic noise conditions from the new cannabis uses in the County. The General Plan EIR identified significant and unavoidable cumulative traffic noise impacts along the County roadway network (Yolo County 2009 and 2019).

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas on the grounds of the parcel. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Personal use outdoor cultivation would be an

ancillary use to the residential parcel maintained by the residence. No additional traffic noise would be generated that could contribute to cumulative impacts.

CLUO traffic noise impacts for the five alternatives are discussed under Impact NOI-2 and were based on noise modeling conducted for 119 roadway segments countywide. Available traffic data was for the cumulative no project and cumulative plus the five CLUO alternatives (see Appendix G). The traffic data also included the nine implementation development agreements and nursery and processing pilot program cannabis projects summarized in Table 4-2. As identified in NOI-2, no increases in cannabis operations would occur under Alternative 1, and therefore, there would be no long-term increases in traffic noise and contribution to cumulative traffic noise impacts would occur. Alternatives 2, 4, and 5 would not result in audible increases in noise on any roadway (i.e., less than 3 dB increases) under cumulative conditions. Alternative 3 could result in a potentially audible increases in noise (i.e., 4 dB) under cumulative conditions that would not exceed County noise standards. Therefore, the contribution of cumulative traffic noise **would not be cumulatively considerable** under all the alternatives.

IMPACT CUM-13: CONTRIBUTION TO CUMULATIVE PUBLIC SERVICE IMPACTS

The cumulative context for public services impacts is the unincorporated area of Yolo County and the individual fire protection districts. The nine development agreement projects identified in Section 4.1.2, "Cumulative Setting," would contribute to cumulative public service demands from the new cannabis uses. The General Plan EIR identified no significant cumulative public service or recreation impacts (Yolo County 2009).

As identified in Impact PS-1 through PS-3, implementation of the CLUO under each of the five alternatives would not increase the demand for public services that would require the construction of new or expanded facilities that could result in environmental impacts. Cannabis uses would be subject to PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. They would also be subject to security measures in the CLUO set forth in Section 8-2.1408(LL) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Construction of cannabis-related buildings under all of the CLUO alternatives would be required to pay the County Facilities and Services Development Fee at the building permit issuance that would provide funding for facility improvements or new government service facilities the timing of which would be determined by County as part of facilities planning.

It should also be noted that cannabis uses would pay additional taxes that would be used by the County for a variety of related uses including potentially improved law enforcement and other services.

The contribution of cumulative public service impacts **would not be cumulatively considerable** under any of the alternatives.

IMPACT CUM-14: CONTRIBUTION TO CUMULATIVE TRANSPORTATION AND CIRCULATION IMPACTS

The cumulative context for transportation impacts is Yolo County and the region. Appendix G provides estimates of traffic conditions for the cumulative base condition and with anticipated traffic from CLUO alternatives. The General Plan EIR identified significant and unavoidable cumulative impacts associated with vehicle miles traveled (VMT) and level of service (LOS) standards (Yolo County 2009). The traffic analysis provided in Appendix G includes the traffic impacts of the nine development agreement projects identified in Section 4.1.2, "Cumulative Setting."

As discussed further below, adoption and implementation of the CLUO, including issuance of subsequent Cannabis Use Permits pursuant to the adopted CLUO, would not result in a cumulatively considerable contribution to cumulative transportation or circulation impacts.

Traffic Operations and Conflicts with the General Plan Circulation Element

As shown in Table 7 in Appendix G, the following County roadway segments are anticipated to operate at LOS D, which is below LOS C standards set forth under General Plan Policy CI-3.1 under cumulative base conditions:[2]

- County Road 29 (between State Route 113 and County Road 102)
- County Road 31 (between County 93A and County Road 98)
- County Road 102 (between Covell Boulevard to Gibson Road)
- County Road 102 (between County Road 17 and State Route 113)
- Harbor Boulevard (between US 50 and Reed Avenue)
- Russell Boulevard (between I-505 and County Road 31)

Table 7 in Appendix G identifies that assumed cannabis uses under CLUO alternatives 2 through 5 would add traffic to these segments but would not result in a further deterioration of LOS. Alternative 3 would contribute to deficient LOS D operations to the following additional roadway segments:

- Chiles Road/County Road 32B (between Mace Boulevard and Webster Road)
- County Road 98 (between County Road 24 and State Route 16)

As described in Impact TRANS-1, the primary function of the County roadway network is to provide for the efficient transport of agricultural goods and equipment as detailed in the General Plan. Policy CI-3.1 of the General Plan states that the goal of the service thresholds is to balance the preservation of community and rural values with a safe and efficient circulation system, and that LOS thresholds are intended to limit the planned capacity of the County's roadways. Therefore, the LOS standards and policies are in place to retain adequate roadway capacity for agricultural purposes. Additionally, Policy CI-3.1 (X) of the General Plan states that exceptions to the LOS thresholds may be allowed in order to preserve agriculture or open space land, enhance the agricultural economy, and preserve the rural character of the County. Cannabis is defined by the state and is proposed to be defined in the CLUO as an agricultural land use. Cannabis activities would fall within the exceptions to the LOS standards identified in General Plan Policy CI-3.1(X). In addition, all alternatives would be subject to CLUO Section 8-2.1408(N) and 8-2.1408(JJ) requirements that promote the reduction of vehicle travel.

Alternatives 1, 2, 3, and 5 assume that personal use outdoor cultivation may occur in any zoning district on a parcel developed with a legal residence. Personal use outdoor cultivation of up to six plants is assumed to occur within pots or garden areas of parcels developed with residences. Alternative 4 would limit personal use cultivation to indoor only. These activities would likely involve no more than 100 square feet of land area and would be required to be outside of front yard and side yard setback areas. Given that personal outdoor

[2] As identified in Appendix G, the cumulative base condition includes the 78 existing and eligible cannabis cultivation sites under Alternative 1.

cultivation would be an ancillary use to the residential parcel, no considerable contribution to vehicle travel to support the cultivation is expected.

Implementation of the CLUO would not result in greater cumulative traffic operational impacts than were disclosed in the General Plan EIR because cannabis uses would be consistent with the General Plan Agriculture land use designation that was factored in the EIR analysis. The contribution of cumulative traffic impacts **would not be cumulatively considerable** under any of the alternatives.

Vehicle Miles Traveled

The cumulative VMT impact analysis considers the net effect of the CLUO in terms of total daily VMT under the five alternatives. As discussed in Impact TRANS-2, the placement of new cannabis uses (including noncultivation uses) in the unincorporated area of the County near existing and future cultivation uses would allow cultivators to avoid transporting cannabis to more distant locations where these facilities currently exist (e.g., existing testing facilities are located in the cities of Davis and Sacramento). Therefore, allowing for new cannabis uses to be located in close proximity to cultivation operations could potentially reduce VMT. Additionally, many of the sites where cannabis operations could occur are currently occupied by VMT-generating land uses (i.e., agricultural, industrial, commercial). Implementation of CLUO under any of the alternatives would not alter the land use traffic generation of the sites in a manner that could substantially change VMT base conditions because cannabis uses operate similar to Agricultural, Industrial, and Commercial designated land uses. All cannabis uses would be subject to the requirements of CLUO Section 8-2.1408(N) and 8-2.1408(JJ) that include vehicle trip reduction measures.

Implementation of the CLUO would not result in greater cumulative VMT impacts than were disclosed in the General Plan EIR because cannabis uses would be consistent with the General Plan Agriculture land use designation that was factored in the EIR analysis. The contribution to cumulative VMT **would not be cumulatively considerable** under any of the alternatives.

IMPACT CUM-15: CONTRIBUTION TO CUMULATIVE UTILITIES AND SERVICE SYSTEM IMPACTS

Public utilities (water supply and wastewater services) provided by community service districts (CSDs) and other local service providers are limited to the local service districts and are generally not considered a cumulative impact. Solid waste services are provided countywide and CLUO contributions could create cumulative impacts. The nine development agreement projects identified in Section 4.1.2, “Cumulative Setting,” would contribute to cumulative public service demands from the new cannabis uses. The General Plan EIR identified significant and unavoidable cumulative public water supply impacts and no significant cumulative impacts related to wastewater service and solid waste (Yolo County 2009).

As addressed in Impact UTIL-1 and UTIL-2, CLUO potential impacts to public water and wastewater systems for Esparto CSD, City of Woodland, and Cachville CSD could occur under the assumptions of CLUO alternatives 2, 3, and 4 (see Exhibits 3.15-2 through 3.15-6). No public water or wastewater systems are assumed to be used by cannabis operations under CLUO alternatives 1 and 5. Implementation of Mitigation Measure HYDRO-4 and CLUO Section 8-2.1408(TT) regarding confirmation of adequate wastewater services, and CLUO Section 8-2.1408(VV) regarding water service verification would serve to mitigate impacts to cumulative water service and wastewater service because Cannabis Use Permits would not be issued if services are not available.

As addressed in Impact UTIL-3, CCR Sections 8108 and 8308 require cultivation, nurseries, and processing facilities to have a cannabis waste management plan that identifies methods for managing cannabis waste, including on-premises composting, collection and processing by an agency, or self-hauling to a permitted facility. The Yolo County Division of Integrated Waste Management has also prepared internal procedures for the disposal of waste generated from cannabis operations. As identified in Table 315-1, the Yolo County Central Landfill is anticipated to have adequate capacity for the foreseeable future (2081) to accommodate cannabis related waste in addition to other solid waste accepted.

Based on the above, the CLUO and would not trigger new cumulative utility impacts beyond what was evaluated General Plan EIR. This impact **would not be cumulatively considerable** under all the alternatives.

4.2 OVERCONCENTRATION

4.2.1 Overview

Sections 3.1 through 3.15 of this EIR evaluate the anticipated environmental impacts from adoption and implementation of the proposed CLUO under each of the five alternatives, including issuance of subsequent cannabis use permits under the adopted CLUO. Section 4.1 evaluates cumulative effects of implementation of the CLUO which examines the potential for the effects assessed in Sections 3.1 through 3.15 to compound or increase when considered together.

This section on overconcentration evaluates the environmental impacts that may occur from the effect of multiple cannabis uses in distinct subregions of the County. The analysis is provided by environmental issue area and is based on the impact analyses provided in Sections 3.1 through 3.15, and Section 4.1, of this EIR.

There are 78 existing and eligible cannabis cultivation sites that currently exist in the County. Based on an assessment of geographic proximity of these sites, there are four visibly recognizable clusters or concentrations of sites. These are shown in Exhibit 4-1. These clusters each occupy an area approximately six-miles in diameter. Concentrations clearly dissipate outside of the identified cluster areas. Based on the densities shown, for the purposes of this analysis, these four clusters represent areas of the County experiencing potential over-concentration of cannabis activities. The four geographic areas of concern are as follows:

- Cluster #1, Guinda/Rumsey – This area actually represents two overlapping clusters of sites. This area is treated as one cluster for purposes of analysis. There are 23 cultivation sites that fall within Cluster #1.
- Cluster #2, Willow Oaks/Monument Hills – There are 13 cultivation sites that fall within Cluster #2.
- Cluster #3, Dunnigan Area – There are nine cultivation sites that fall within Cluster #3.
- Cluster #4, Esparto Area – There are eight cultivation sites that fall within Cluster #4

Of these four areas, the Guinda/Rumsey Cluster (Cluster #1) exhibits a density of cannabis uses almost two to three times greater than the others and contains 30 percent of all the cannabis sites in the County. For these reasons, this cluster is determined to be “over-concentrated” for the purposes of this analysis.

The remaining three clusters (Willow Oaks/Monument Hills Cluster #2, Dunnigan Area Cluster #3, and Esparto Area Cluster #4), which have a density of greater than five sites within a six-mile diameter analysis area, but comparatively less than the Guinda/Rumsey area, are considered “potentially over-concentrated” for the purposes of this analysis.

There are 25 cannabis sites that fall outside of the cluster areas identified above and that do not fall within identifiable areas of concern. None of these remaining sites form clusters of greater than five sites within a six-mile diameter analysis area within the unincorporated area. For the purposes of this analysis is this remainder area is considered “not over-concentrated”.

As supported by this analysis, five or fewer sites within a six-mile diameter area is not considered over-concentration, and 23 or more sites is considered over-concentrated. The range between six and 22 sites is considered potentially overconcentrated. The determination of the exact point in this range where overconcentration clearly occurs is not further informed by this environmental review. This assessment acknowledges that that determination is a matter of policy rather than science and will be made by decision of the Board of Supervisors based on considerations that fall outside the purview of CEQA.

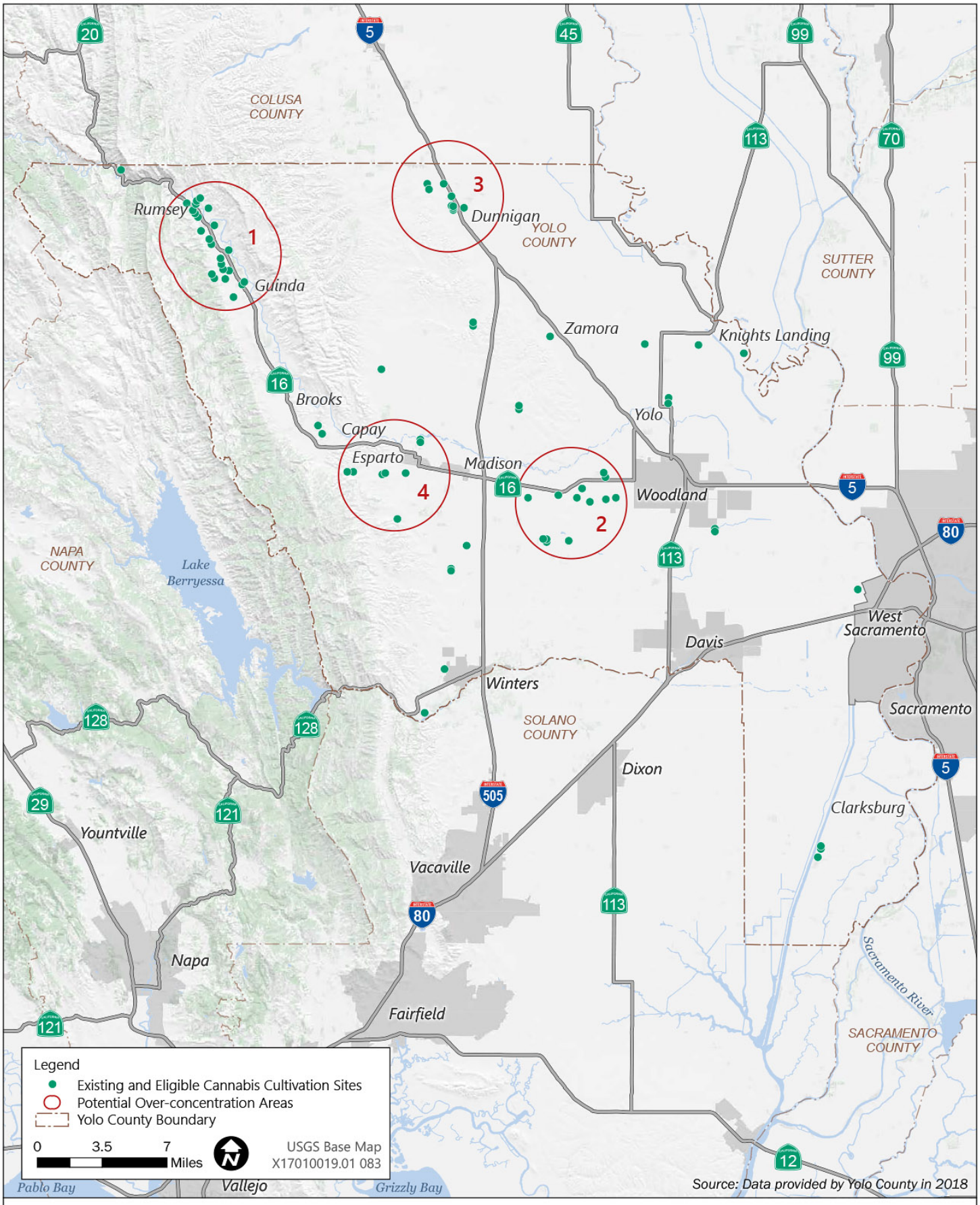


Exhibit 4-1 **Cluster Map of Existing and Eligible Cannabis Cultivation Sites**

CLUO Section 8-2.1406(H) allows the Board of Supervisors to establish limitations on the number of cannabis operations that may be approved in distinct subregions of the County. This Section states as follows:

> Section 8-2.1406 (H) Over-Concentration -- By resolution adopted concurrently with, or subsequent to, this article, as may be amended from time to time, the Board of Supervisors may establish limitations on the number of cannabis operations that may be approved in distinct subregions of the County. The subregions correspond with the jurisdictional boundaries of local General Plan Citizens' Advisory Committees. Note: Limitations or "caps" on the number of allowed cannabis operations in various County sub-regions have not yet been determined but are expected to be based primarily on population size and density in each subregion, with higher caps in less populated, less dense subregions. For purposes of applying any limitations set forth in such resolution, multiple licenses/permits (including permitted co-locations) at a single address shall count as one operation. Subject to this limitation, each operation covered by a development agreement approved through the "early" development agreement process that predated this article shall also count against the limitation.
>
> If any combination of the number of approved use permits, "early" development agreements, or pending permit applications exceeds the limitation within a subregion, the Board of Supervisors shall be the final decision-making authority on any use permit application. The Board may approve a use permit if the approval would create or add to an over-concentration only upon finding that denial of the application would unduly limit development of the legal market so as to perpetuate the illegal market for cannabis and related products, and that the approval would not cause or contribute to a cannabis-related law enforcement problem or other public nuisance in the affected subregion and any surrounding affected areas.

As defined for purposes of the CEQA analysis, Alternatives 2, 3, and 4 assume the overconcentration controls stated above, whereas Alternatives 1 and 5 do not.

In addition to Section 8-2.1406(H) there are a number of other controls built into the County's existing and proposed cannabis program that could affect the number of cannabis use permits allowed within a given geographic area. These include (in no order):

- State licensing (existing)
- County licensing (existing)
- Overall license cap of 78 licenses (various options to modify this are under consideration)
- Zoning (proposed)
- Buffers (various options are under consideration)
- Canopy size limits (existing)
- Cannabis Use Permit process (proposed)
- Other proposed regulations in the CLUO

4.2.2 Impact Analysis

This section includes an analysis by environmental issue area and is based on the impact analyses in Sections 3.1 through 3.15 and Section 4.1 of this EIR.

IMPACT OVC-1: AESTHETIC IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Impacts AES-1 through AES-4 provide a detailed analysis of aesthetics. Impacts AES-1, AES-2, and AES-4 are less-than-significant for all alternatives. Impact AES-3 (visual character) and Impact CUM-1 (cumulative visual character) conclude that aesthetic impacts related to visual character would be significant and unavoidable for all alternatives. The analysis below examines the potential for aesthetic impacts resulting

from clusters of cannabis uses in four geographic areas of the County that have been identified as being over-concentrated or potentially over-concentrated with cannabis uses (see Exhibit 4-1).

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the existing concentration of existing and eligible cultivation sites shown in Exhibit 4-1. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative based on zoning constraints proposed in the CLUO. The assumed nine relocations could result in a further concentration of cannabis uses in one of the four clusters identified in Exhibit 4-1.

By definition, this alternative does not assume implementation of CLUO Section 8-2.1406(H) which would potentially impose caps and other limitations on the number of cannabis operations that may be approved in distinct subregions of the County. Implementation of the CLUO would require approval of a Cannabis Use Permit and compliance with CLUO Sections 8-2.1408(B) (maintenance of the agricultural land not in use that include weed abatement and pest management), 8-2.1408(F) (compliance with applicable building design standards and policies of the County), 8-2.1408(X) (prohibition of hoop house lighting), 8-2.1408(Z) (lighting requirements to minimize glare and off-site impacts), 8-2.1408(KK) (screening of outdoor cannabis uses from public right-of-way), 8-2.1408(OO) (compliance with applicable site design standards and policies of the County), 8-2.1408(RR) (tree retention and protection standards), and 8-2.1412(C) (restoration of cultivation sites not in use). Implementation the CLUO requirements in Sections 8-2.1408(B), 8-2.1408(F), 8-2.1408(X), 8-2.1408(Z). 8-2.1408(KK), 8-2.1408(OO), 8-2.1408(RR), and 8-2.1412(C) would ensure that the visual character and lighting conditions of the area are controlled/maintained to an acceptable level at individual sites and cumulatively over the entire County.

While cannabis cultivation uses overall are not substantively different from other allowed agricultural uses in terms of size and massing, there are visual characteristics unique to cannabis cultivation that are different aesthetically from agricultural and rural land uses. For example, cannabis cultivation activities are often organized on a small portion of a larger site, with the supporting buildings and greenhouses located close to each other, as differentiated from other County agricultural operations such as row crops, orchards and vineyards, and pastureland that more commonly use the entire parcel area for a range of operations and activities. Also, for security purposes, cannabis cultivation often includes solid fencing that obstructs views of the site, and may block open public views across agricultural fields from some vantage points. Other features that differ from existing agricultural operations include security features (e.g., gates, security personnel, and guard dogs) and in some cases, the lack of maintenance of the remaining land areas of the parcel that are not used as part of the cultivation operation.

These differences, when clustered in the four geographic areas of the County identified as over-concentrated or potentially over-concentrated, are conservatively considered **significan**t for aesthetic impacts for the reasons stated above.

Alternative 2: All License Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 2 as part of compliance with the CLUO (zoning and buffer). This alternative assumes development of 30 relocated sites and 54 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-5, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses are assumed to be located along the SR 16 corridor and near the community of Dunnigan. The following analysis focuses on the potential for aesthetic impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses

(distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that five new cannabis uses (distribution, nursery, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 18 sites (38 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that four new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 12 (50 percent increase).

While cannabis operations overall are not substantively different from other allowed agricultural uses in terms of size and massing, as described above under Alternative 1, there are visual characteristics unique to cannabis uses that are arguably different aesthetically from other typical agricultural activities in the County. These unique visual characteristics, when concentrated in/near a small community or cluster of other non-agricultural or “traditional” agricultural uses, become more recognizable and arguably potentially adverse to the views of others. For this reason, conservatively, concentrations of cannabis uses in these four identified geographic areas, are potentially significant with respect to aesthetical impacts.

Implementation of the CLUO requirements in Sections 8-2.1408(B) (maintenance of the agricultural land not in use that includes weed abatement and pest management), 8-2.1408(F) (compliance with applicable building design standards and policies of the County), 8-2.1408(X) (prohibition of hoop house lighting), 8-2.1408(Z) (lighting requirements to minimize glare and off-site impacts),8-2.1408(KK) (screening of outdoor cannabis uses from public right-of-way), 8-2.140800) (compliance with applicable site design standards and policies of the County), 8-2.1408(RR) (tree retention and protection standards), and 8-2.1412(C) (restoration of cultivation sites not in use) would ensure that the visual character and lighting conditions of the area are controlled/maintained to an acceptable level at individual sites and cumulatively over the entire County.

Notwithstanding these proposed regulations, this effect, when concentrated in a smaller, geographic, subregion of the County is conservatively identified as **significant** for aesthetic impacts under Alternative 2 because there are visual characteristics unique to cannabis cultivation described herein that are different aesthetically from other agricultural uses.

Alternative 3: All License Types with High Limits

This alternative would include the largest extent of new cannabis uses in the County from the assumed development of nine relocated sites due to zoning restrictions under the CLUO and the addition of 186 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-6, based on existing operations and assumptions used to define this alternative, it is assumed to result in the greatest concentration of new

cannabis uses of all the alternatives along the SR 16 corridor and along portions of the I-5 corridor. The following analysis focuses on the potential aesthetic impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]). The effect of a smaller buffer, such as this, would be to allow more uses within a given area resulting in greater density. This contrasts with the effect of a larger buffer (such as 1,000 feet) which serves to space out cannabis sites resulting in lower density. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that 16 new cannabis uses (cultivation, nursery, retail, processing, distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 39 sites (70 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that 10 new cannabis uses (cultivation, distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 23 sites (77 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that 15 new cannabis uses (cultivation, distribution, nurseries, testing, microbusiness, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 24 sites (166 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that 11 new cannabis uses (cultivation, distribution, microbusiness, retail, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 (138 percent increase).

While cannabis operations overall are not substantively different from other allowed agricultural uses in terms of size and massing, as described above under Alternative 1, there are visual characteristics unique to cannabis uses that are arguably different aesthetically from other typical agricultural activities in the County. These unique visual characteristics, when concentrated in/near a small community or cluster of other non-agricultural or “traditional” agricultural uses, become more recognizable and arguably potentially adverse to the views of others. For this reason, conservatively, concentrations of cannabis uses in these four identified geographic areas, are potentially significant with respect to aesthetical impacts.

Implementation of the CLUO requirements in Sections 8-2.1408(B) (maintenance of the agricultural land not in use that includes weed abatement and pest management), 8-2.1408(F) (compliance with applicable building design standards and policies of the County), 8-2.1408(X) (prohibition of hoop house lighting), 8-2.1408(Z) (lighting requirements to minimize glare and off-site impacts), 8-2.1408(KK) (screening of outdoor cannabis uses from public right-of-way), 8-2.140800) (compliance with applicable site design standards and policies of the County), 8-2.1408(RR) (tree retention and protection standards), and 8-2.1412(C) (restoration of cultivation sites not in use) would ensure that the visual character and lighting conditions of the area are controlled/maintained to an acceptable level at individual sites and cumulatively over the entire County.

Notwithstanding these proposed regulations, this effect, when concentrated in a smaller, geographic, subregion of the County is conservatively identified as **significant** for aesthetic impacts under Alternative 3 because there are visual characteristics unique to cannabis cultivation described herein that are different aesthetically from other agricultural uses.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. As shown in Exhibit 2-7, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area further concentrating the density of cannabis uses in these areas of the County. The following analysis focuses on the potential aesthetic impacts within the four cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that seven new cannabis uses (distribution, nurseries, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 16 sites (78 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that five new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 13 (63 percent increase).

While cannabis operations overall are not substantively different from other allowed agricultural uses in terms of size and massing, as described above under Alternative 1, there are visual characteristics unique to cannabis uses that are arguably different aesthetically from other typical agricultural activities in the County. These unique visual characteristics, when concentrated in/near a small community or cluster of other non-

agricultural or "traditional" agricultural uses, become more recognizable and arguably potentially adverse to the views of others. For this reason, conservatively, concentrations of cannabis uses in these four identified geographic areas, are potentially significant with respect to aesthetical impacts.

Implementation of the CLUO requirements in Sections 8-2.1408(B) (maintenance of the agricultural land not in use that includes weed abatement and pest management), 8-2.1408(F) (compliance with applicable building design standards and policies of the County), 8-2.1408(X) (prohibition of hoop house lighting), 8-2.1408(Z) (lighting requirements to minimize glare and off-site impacts), 8-2.1408(KK) (screening of outdoor cannabis uses from public right-of-way), 8-2.140800) (compliance with applicable site design standards and policies of the County), 8-2.1408(RR) (tree retention and protection standards), and 8-2.1412(C) (restoration of cultivation sites not in use) would ensure that the visual character and lighting conditions of the area are controlled/maintained to an acceptable level at individual sites and cumulatively over the entire County.

Notwithstanding these proposed regulations, this effect, when concentrated in a smaller, geographic, subregion of the County is conservatively identified as **significant** for aesthetic impacts under Alternative 4 because there are visual characteristics unique to cannabis cultivation described herein that are different aesthetically from other agricultural uses.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

This alternative assumes the development of 30 relocated sites as part of compliance with the CLUO and 50 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-8, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area. The following analysis focuses on the potential aesthetic impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that three new cannabis uses (distribution,

microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 11 (38 percent increase).

While cannabis operations overall are not substantively different from other allowed agricultural uses in terms of size and massing, as described above under Alternative 1, there are visual characteristics unique to cannabis uses that are arguably different aesthetically from other typical agricultural activities in the County. These unique visual characteristics, when concentrated in/near a small community or cluster of other non-agricultural or "traditional" agricultural uses, become more recognizable and arguably potentially adverse to the views of others. For this reason, conservatively, concentrations of cannabis uses in these four identified geographic areas, are potentially significant with respect to aesthetical impacts.

By definition, this alternative does not assume implementation of CLUO Section 8-2.1406(H) which would potentially impose caps and other limitations on the number of cannabis operations that may be approved in distinct subregions of the County. Implementation of the CLUO requirements in Sections 8-2.1408(B) (maintenance of the agricultural land not in use that includes weed abatement and pest management), 8-2.1408(F) (compliance with applicable building design standards and policies of the County), 8-2.1408(X) (prohibition of hoop house lighting), 8-2.1408(Z) (lighting requirements to minimize glare and off-site impacts), 8-2.1408(KK) (screening of outdoor cannabis uses from public right-of-way), 8-2.140800) (compliance with applicable site design standards and policies of the County), 8-2.1408(RR) (tree retention and protection standards), and 8-2.1412(C) (restoration of cultivation sites not in use) would ensure that the visual character and lighting conditions of the area are controlled/maintained to an acceptable level at individual sites and cumulatively over the entire County.

Notwithstanding these proposed regulations, this effect, when concentrated in a smaller, geographic, subregion of the County is conservatively identified as **significant** for aesthetic impacts under Alternative 5 because there are visual characteristics unique to cannabis cultivation described herein that are different aesthetically from other agricultural uses.

MITIGATION MEASURES

Mitigation Measure OVC-1a: Modify CLUO Section 8-2.1406(H) (Alternative 1-5)

Establish and implement detailed procedures for implementing Section 8-2.1406(H) of the proposed CLUO for all Alternatives 1 through 5 to include the following:

I. Establish a threshold for the number of sites within a six-mile diameter area that would not constitute over-concentration. Based on the EIR analysis, the threshold is five or fewer sites.

II. Establish a threshold for the number of sites within a six-mile diameter area that constitutes over-concentration. Based on the EIR analysis, the threshold falls between six and 22 sites which is the identified range of potential overconcentration. The Board of Supervisors will identify a specific threshold for over-concentration as a matter of policy and this threshold will be included in the adopted CLUO as reflected in VI below.

III. Prohibit the issuance of any Cannabis Use Permits in any identified or future six-mile diameter area in excess of the threshold established in II above, unless special findings described in VI below are made.

IV. The Board of Supervisors shall have final decision-making authority over Cannabis Use Permits in areas of potential over-concentration and over-concentration. In other areas, the Planning Commission will be the decision-making authority, and would only go before the Board of Supervisors on appeal.

V. The County shall establish a procedure and appropriate resources for processing use permit applications under the adopted CLUO such that all sites within each of the four identified clusters will be processed simultaneously to enable consideration of community specific issues and to facilitate

community involvement. Use permit applications for the 78 existing and eligible licensees will be processed prior to acceptance of subsequent applications.

VI. To satisfy Mitigation Measure OVC-1a through c, the proposed language for Section 8-2.1406(H) shall be modified as follows:

Section 8-2.1406 (H) Over-Concentration – Five or less cannabis use permits in any area of the County with a diameter of six-miles shall not be considered over-concentrated. Six to XX cannabis use permits in any area of the County with a diameter of six-miles shall be considered potentially over-concentrated. More than XX cannabis use permits in any area of the County with a diameter of six miles shall be considered over-concentrated, and shall not be allowed unless special findings are made as described further below. [3]

By resolution adopted concurrently with, or subsequent to, this article, as may be amended from time to time, the Board of Supervisors shall establish procedures and commit resources to implement this section and ensure processing of cannabis use permits in areas of potential over-concentration and over-concentration, consistent with the adopted CLUO.

~~By resolution adopted concurrently with, or subsequent to, this article, as may be amended from time to time, the Board of Supervisors may establish limitations on the number of cannabis operations that may be approved in distinct subregions of the County. The subregions correspond with the jurisdictional boundaries of local General Plan Citizens' Advisory Committees. *Note: Limitations or "caps" on the number of allowed cannabis operations in various County sub-regions have not yet been determined but are expected to be based primarily on population size and density in each subregion, with higher caps in less populated, less dense subregions.* For purposes of applying any limitations set forth in such resolution,~~

~~m~~Multiple licenses/permits (including permitted co-locations) at a single address shall count as one operation. Subject to this limitation, each operation covered by a development agreement approved through the "early" development agreement process that predated this article shall also count against the limitation.

~~If any combination of the number of approved use permits, "early" development agreements, or pending permit applications exceeds the limitation within a subregion,~~ The Board of Supervisors shall be the final decision-making authority on any use permit application within an area of potential over-concentration or over-concentration.

The Board may approve a use permit in an area of ~~if the approval would create or add to an~~ over-concentration only upon making special findings that denial of the application would unduly limit development of the legal market so as to perpetuate the illegal market for cannabis and related products, ~~and~~ that the approval would not cause or contribute to a cannabis-related law enforcement problem or other public nuisance in the affected subregion and any surrounding affected areas.

Mitigation Measure OVC-1b: Establish Priority Processing for Cannabis Use Permits in Cluster Areas (Alternatives 1-5)

Adopt procedures pursuant to Mitigation Measure OVC-1a V to ensure that Cannabis Use Permits for existing cannabis cultivation sites in the Guinda/Rumsey Cluster #1, Willow Oaks/Monument Hills Cluster #2, Dunnigan Area Cluster #3, and Esparto Area Cluster #4 are processed prior to the consideration of new cannabis uses under any alternative.

[3] This will be replaced with the threshold determined by the Board of Supervisors pursuant to Mitigation Measure OVC-1a(II)

Mitigation Measure OVC-1c: Expand Cannabis Use Permit Issuance Findings (Alternatives 1-5)

Modify CLUO Section 8-2.1406(L) to add the following community considerations in addition to the those already identified in the CLUO for determining whether to grant a Cannabis Use Permit:

- Number of cannabis operations in area
- Proximity of cannabis operations (e.g. to each other/and/or to other identified sensitive uses)
- Adjoining/nearby land uses
- Population in area
- Crime rate in area
- Compliance history of the applicant and/or operator
- Nuisance abatements in area
- Community character
- Community support
- Parcels size and proposed uses on non-cannabis portion of parcel
- Subject matter input relevant to the specific location or proposed project from County department and division heads
- Other cultural, social, equity, and environmental justice concerns deemed applicable by the County

Significance after Mitigation

These Mitigation Measures would ensure, among other things, that overconcentration is regulated under any alternative. Implementation of Mitigation Measures OVC-1a through OVC-1c would ensure that the unique setting of those subregions of the County where overconcentration is projected to potentially occur, is considered in issuing Cannabis Use Permits and establishing regionally-based caps on cannabis activities. These measures would also establish consistent thresholds to guide processing of all future Cannabis Use Permits to ensure the same considerations of overconcentration are implemented over time as cannabis operations are established and removed under the program. Notwithstanding implementation of these mitigation measures, it is acknowledged that the visual character of identified subareas of the County will be altered as a result of continued and possible expanded cannabis activities. Therefore, aesthetic impacts due to overconcentration in identified areas would be **significant and unavoidable** for all alternatives.

IMPACT OVC-2: AGRICULTURAL RESOURCE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Agricultural resource impacts for the CLUO under the five alternatives are addressed in Section 3.2, "Agricultural Resources." Impacts AG-1 and AG-3 identify no significant impacts associated with the loss of farmland or conflicts with existing agricultural uses under any of the alternatives. Pursuant to California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) the state has defined medical and adult-use cannabis as agricultural products. Section 8-2.1404(E) of the proposed CLUO identifies cannabis cultivation and related activities as agricultural land uses. Section 8-2.1404(E) states:

> Cannabis Cultivation and Related Activities are Agricultural Land Uses -- Legal cultivation of cannabis is an agricultural use.

The cultivation and commerce process for cannabis involves largely same practices as other agricultural products currently generated in the County. These similar practices include:

- cultivation of the crop through a growth medium (soil), light, water, and nutrients;
- harvesting and processing of the crop for sale;
- industrial activities that create products from the crop; and
- sales of crop and/or products created from the crop.

However, there are differences in how cannabis cultivation is conducted as compared to other agricultural operations. Operations dedicated to cannabis cultivation are generally concentrated near the permitted grow area and the remaining land areas of the parcel may not be used as part of the cultivation operation. This differs from other County agricultural operations such as row crops, orchards and vineyards, and pastureland that typically use the entire parcel area. The potential uses of these remaining lands on cultivation sites are governed by the requirements of the General Plan and County Zoning Regulations.

The CLUO includes Section 8-2.1408(B) which would require maintenance of cannabis sites (including land areas of parcels not in use) to avoid nuisances and pest issues that could result in impacts to adjoining agricultural uses. Section 8-2.1408(B) includes proposed standards for agricultural applications (e.g., pesticides) that are designed to protect public health and adjoining agricultural uses.

Implementation of the CLUO would allow for the continued operation of the 78 existing and eligible cannabis cultivation uses in the County subject to obtaining approval of a Cannabis Use Permit. Implementation of Alternatives 2, 3, 4, and 5 assume additional cannabis cultivation uses and new noncultivation cannabis uses (manufacturing, distribution, retail, testing, microbusinesses, processing, and nurseries) within the County's agricultural zones as well as commercial and industrial zones. Noncultivation cannabis uses would support the success of cannabis cultivation consistent with General Plan policies AG-3.2, AG-3.4, AG-3.7, ED-1.3 that allow for uses that support agriculture including commercial uses, product sales, processing, and distribution of locally produced crops. Noncultivation cannabis uses are considered by the County as compatible with farmland and are similar to agricultural land uses currently allowed under the Zoning Regulations. Section 8-2.303 of the Yolo County Code allows agricultural land uses and operations that include processing of agricultural products, accessory uses such as greenhouses, commercial uses such as, agricultural chemical/fertilizer sales, wineries, breweries, and industrial uses such as regional processing facilities (e.g., wine, beer, spirit, olive oil production, canneries, and commercial composting) (Zoning Regulation Tables 8-2.304[a], 8-2.304[c], and 8-2.304[d]).

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant agricultural land conversion or conflicts would occur as a result. Thus, agricultural resource impacts associated with concentration of cannabis uses would be **less than significant** under all alternatives.

IMPACT OVC-3: AIR QUALITY AND ODOR IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

The following analysis is based on the impact analysis provided in Section 3.3, "Air Quality and Odors." The reader is referred to impacts AQ-1 through AQ-4 for detailed analysis of impacts under each of the alternatives.

Impact AQ-1 related to conflicts with air quality policies and regulations was found to be less than significant for all alternatives based on compliance with standard requirements of the YSAQMD and the CLUO. Impacts AQ-2 and AQ-3 address air pollutant emissions that are anticipated to result from cannabis uses assumed under each of the five alternatives. These air pollutant emissions include ozone precursors (ROG and NO_x) and particulate matter (PM_{10} and $PM_{2.5}$). As shown in Table 3.3-5 and 3.3-6, emissions for individual cannabis sites would be below YSAQMD thresholds of significance. As described in Section 3.3, "Air Quality and Odors," these air pollutants are regional in nature and would disperse throughout the County and the Sacramento Valley Air Basin. As discussed under Impact AQ-2, all individual sites that are permitted under

the CLUO would be required to control dust emissions in accordance with YSAQMD's rules, as described in Section 8-2.140(L). Cannabis uses are also required to generate 50 percent of their energy demand from renewable sources under the CLUO Section 8-2.1408(O). Section 8-2.1408(T) of the CLUO requires compliance of generators with YSAQMD and CCR Section 8306. These emissions are similar to existing agricultural uses in the area and would not create a localized air quality impact as a result of the concentration of cannabis uses in subregions of the County.

Impact AQ-4 addresses odor and concludes that impacts related to odor, for all alternatives, is significant and unavoidable for implementation of the CLUO, including issuance of subsequent Cannabis Use Permits. Impact CUM-3 addressing cumulative odor impacts makes a similar determination, concluding that cumulative odor impacts would be significant and unavoidable for all alternatives. The analysis below examines the potential for odor impacts resulting from clusters of cannabis uses in four geographic areas of the County that have been identified as being potentially over-concentrated with cannabis uses ((see Exhibit

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) With Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the existing concentration of existing and eligible cultivation sites shown in Exhibit 4-1. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative based on zoning constraints proposed in the CLUO. The assumed nine relocations could result in a further concentration of cannabis uses in one of the four clusters identified in Exhibit 4-1.

By definition, this alternative does not assume implementation of CLUO Section 8-2.1406(H) which would potentially impose caps and other limitations on the number of cannabis operations that may be approved in distinct subregions of the County.

Implementation of the CLUO would require approval of a Cannabis Use Permit and compliance with CLUO Section 8-2.1408(E) which proposes buffers for this Alternative of 75 feet from cannabis uses for individual residences and 1,000 feet for other defined sensitive receptors). The CLUO would establish odor control regulations that require odor management and set thresholds for acceptable vs nuisance odor. Odors must be controlled at the property line of the site to a dilution-to-threshold ratio (D/T) of seven parts clean or filtered air to one part odorous air (7 D/T) or less. The proposed CLUO requires the development of an Odor Control Plan (CLUO Section 8-2.1410[D][2]) for each operation and identifies a process of corrective actions for nuisance odor conditions (CLUO Section 8-2.1408[CC] and 8-2.1408[DD]).

Notwithstanding the implementation of these regulations, the potential for impacts to occur is conservatively identified as significant and unavoidable because:

- Cannabis remains a controversial activity.
- Some neighbors have expressed that they are very sensitive to the odor and find it to be highly objectionable.
- The proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations.
- Odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

These concerns, when examined within the four geographic areas of the County identified as potentially over-concentrated, are conservatively considered **significan**t for odor impacts under Alternative 1.

Alternative 2: All Licenses Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 2 as part of compliance with the CLUO. This alternative assumes development of 30 relocated sites and 54 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-5, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses are assumed to be located along the SR 16 corridor and near the Dunnigan area. The following analysis focuses on the potential for odor impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that five new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 18 sites (38 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that four new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 12 (50 percent increase).

As discussed above under Alternative 1, the CLUO establishes land use restrictions, buffers, odor control, and corrective actions to address potential odor nuisance impacts. Notwithstanding the implementation of these regulations, the potential for odor impacts to occur in a smaller, geographic subregion of the County is conservatively identified as **significant** because some neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the acceptable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

These concerns, when examined within the four geographic areas of the County identified as potentially over-concentrated, are conservatively considered **significan**t for odor impacts under Alternative 2.

Alternative 3: All License Types with High Limits

This alternative would include the largest extent of new cannabis uses in the County from the assumed development of nine relocated sites and the addition of 186 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-6, based on existing operations and assumptions used to define this alternative, it is assumed to result in the greatest concentration of new cannabis uses of all the alternatives along the

SR 16 corridor and along portions of the I-5 corridor. The following analysis focuses on the potential for odor impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. This alternative assumes that 16 new cannabis uses (cultivation, nursery, distribution, microbusiness, retail, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 39 sites (70 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. This alternative assumes that 10 new cannabis uses (cultivation, distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster 23 sites (77 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. This alternative assumes that 15 new cannabis uses (cultivation, distribution, nurseries, testing, microbusiness, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 24 sites (166 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. This alternative assumes that 11 new cannabis uses (cultivation, distribution, microbusiness, retail, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 (138 percent increase).

As discussed above under Alternative 1, the CLUO establishes land use restrictions, buffers, odor control, and corrective actions to address potential odor nuisance impacts. Notwithstanding the implementation of these regulations, the potential for odor impacts to occur in a smaller, geographic subregion of the County is conservatively identified as **significant** because some neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

These concerns, when examined within the four geographic areas of the County identified as potentially over-concentrated, are conservatively considered **significan**t for odor impacts under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. As shown in Exhibit 2-7, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area further concentrating the density of cannabis uses in these areas of the County. The following analysis focuses on the potential for odor impacts within the four cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. This alternative assumes that seven new cannabis uses (distribution, nurseries, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 16 sites (78 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. This alternative assumes that five new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 13 (63 percent increase).

As discussed above under Alternative 1, the CLUO establishes land use restrictions, buffers, odor control, and corrective actions to address potential odor nuisance impacts. Notwithstanding the implementation of these regulations, the potential for odor impacts to occur in a smaller, geographic subregion of the County is conservatively identified as **significant** because some neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

Because Alternative 4 assumes all cannabis activities are conducted within structures, this Alternative is likely to have lower odor impacts overall than Alternatives 1, 2, 3, and 5. Nevertheless, while the assumptions of this Alternative and the identified odor control measures would minimize the likelihood of nuisance odors, the potential for odor emissions to occur remains. These concerns, when examined within the four geographic areas of the County identified as potentially over-concentrated, are conservatively considered **significan**t for odor impacts under Alternative 4.

Alternative 5: All License Types with Moderate Limits, Within Agricultural Zones Only, No Retail

This alternative assumes the development of 30 relocated sites as part of compliance with the CLUO and 50 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-8, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area. The following analysis focuses on the potential for odor impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. This alternative assumes that three new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 11 (38 percent increase).

As discussed above under Alternative 1, the CLUO establishes land use restrictions, buffers, odor control, and corrective actions to address potential odor nuisance impacts. Notwithstanding the implementation of these regulations, the potential for odor impacts to occur in a smaller, geographic subregion of the County is conservatively identified as **significant** because some neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance.

These concerns, when examined within the four geographic areas of the County identified as potentially over-concentrated, are conservatively considered **significan**t for odor impacts under Alternative 5.

Mitigation Measures

Mitigation Measure OVC-1a: Modify CLUO Section 8-2.1406(H) (Alternative 1-5)

Mitigation Measure OVC-1b: Establish Priority Processing for Cannabis Use Permits in Cluster Areas (Alternatives 1-5)

Mitigation Measure OVC-1c: Expand Cannabis Use Permit Issuance Findings (Alternatives 1-5)

Significance after Mitigation

These Mitigation Measures would ensure, among other things, that overconcentration is regulated under any alternative. Implementation of Mitigation Measures OVC-1a through OVC-1c would ensure that the unique setting of those subregions of the County where overconcentration is projected to potentially occur, is

considered in issuing Cannabis Use Permits and establishing regionally-based caps on cannabis activities. These measures would also establish consistent thresholds to guide processing of all future Cannabis Use Permits to ensure the same considerations of overconcentration over time as cannabis operations are established and removed under the program. Notwithstanding implementation of these mitigation measures, it is acknowledged that because, some neighbors are very sensitive to the odor and find it to be highly objectionable, the proposed regulatory threshold is not zero-detect which means that some odor will be detectable and will be considered acceptable under the regulations, and in recognition that odor exceedances in excess of the allowable level may be higher in early years as the industry and technology evolve despite the fact that enforcement will occur under the ordinance. Therefore, odor impacts due to overconcentration in identified areas would be **significant and unavoidable** for all alternatives.

IMPACT OVC-4: BIOLOGICAL RESOURCE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Biological resource impacts of the CLUO under all five alternatives are addressed in Section 3.4, "Biological Resources." Impacts BIO-1 through BIO-7 address biological resources under each of the five alternatives. The five alternatives are assumed to result in the use of 18 to 379 acres of land for new cannabis uses. Development and operation of relocated cultivation sites and new cannabis uses may result in adverse effects on special-status species, sensitive natural communities and riparian habitat, state and federally protected wetlands, and resident or migratory wildlife corridors or wildlife nursery sites.

The CLUO includes performance standards (including participation in the Yolo Habitat Conservation Plan/Natural Community Conservation Plan [HCP/NCCP]) that address special-status species, habitat impacts, and invasive plants in CLUO Sections 8-2.1408(A), 8-2.1408(D), 8-2.1408(OO), and 8-2.1408(RR). Operation of the cultivation sites are also subject to compliances with Terms 4, 10, 27, and 37 of Attachment A (General Requirements and Prohibitions) of State Water Resources Control Board (SWRCB) Order WQ 2019-0001-DWQ that also provide special-status species and habitat protection requirements.

Implementation of the these requirements and Mitigation Measure BIO-1 would offset impacts to special-status species countywide because these measures would require: reconnaissance-level surveys of the activity footprint; identification of special-status species, sensitive communities, and special-status species habitat within the activity footprint; and protection, avoidance, and compensation for impacts on these species, habitats, and movement corridors in a manner consistent with the Yolo HCP/NCCP as well as state and federal law.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant impacts to biological resources would occur that are not addressed in Section 3.4, "Biological Resources." Thus, biological resource impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-5: CULTURAL RESOURCE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Cultural resource impacts of the CLUO under the five alternatives are addressed in Section 3.5, "Cultural Resources." Impacts CULT-1 through CULT-4 address cultural resources under each of the five alternatives.

Cannabis uses would be subject to CLUO Sections 8-2.1408(H), 8-2.1408(OO), and 8-2.14010(C)(1) that would require site assessments to determine potential cultural resources on the project site and site plans may be required to be modified to protect the resource. In addition to the CLUO, cannabis cultivation sites are required to comply with the SWRCB Attachment A (General Requirements and Prohibitions) of Order WQ 2019-0001-DWQ. Term 21 of the General Requirements and Prohibitions requires that records searches be performed through the applicable CHRIS information center before land-disturbing activities for cultivation operations. Positive results identified in the records search would require further evaluation. Term 22

requires documentation and protection of any discovered archaeological resources during cultivation operations.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant impacts to cultural resources would occur that are not addressed in Section 3.5. Thus, cultural resource impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-6: ENERGY IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Energy impacts of the CLUO under the five alternatives are addressed in Section 3.6, "Energy." Impacts ENE-1 and ENE-2 address energy impacts under each of the five alternatives. As discussed in Section 3.6 and Section 3.15, "Utility and Service Systems," electric and natural gas services in Yolo County are provided by the Pacific Gas and Electric Company (PG&E). PG&E operates electricity and natural gas infrastructure in the County and throughout northern California, including power lines, power plants, pipelines, and substations. Private companies provide service for some of the unincorporated areas of the County not covered by PG&E. As of 2017, PG&E procured 33 percent of its electricity from renewable sources. Additionally, PG&E customers in unincorporated Yolo County can opt into Valley Clean Energy (VCE), a community choice aggregator that offers electricity at higher renewable rates than PG&E. VCE offers two levels of electricity service: Standard Green, which procures 42 percent of its electricity from renewables; and UltraGreen, which offers 100 percent renewable electricity. These services and associated infrastructure is provided countywide and is not limited to a single subregion.

As identified in Impact ENE-1, Section 8-2.1408(O) of the CLUO includes a renewable energy requirement of at least 50 percent for all cultivation and noncultivation sites. CCR Sections 8203 and 8305 set forth renewable energy requirement for new and relicensed sites. Under these requirements, all sites seeking license renewals must meet the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewables Portfolio Standard.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant energy impacts would occur that are not addressed in Section 3.6, "Energy." Thus, energy impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-7: GEOLOGY AND SOIL IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Geology and soil impacts of the CLUO under the five alternatives are addressed in Section 3.7, "Geology and Soils." Impact GEO-1 through GEO-4 address geology and soil impacts.

As identified in Impact GEO-1 and GEO-2, cultivation sites would be subject to the requirements of SWRCB Order WQ 2019-0001-DWQ and CLUO Sections 8-2.1408(F) and 8-2.1408(V) which would require that cultivation sites maintain soil and slope stability. While noncultivation sites would not be subject to SWRCB Order WQ 2019-0001-DWQ, these sites would be subject to CLUO Sections 8-2.1408(F) and 8-2.1408(V) that would require grading and drainage improvements to be implemented in a manner that prevent geologic and soil stability issues. Impact GEO-3 identifies that cannabis uses would be required to comply Sections 8-2.1408(H)(1), 8-2.1408(OO), and 8-2.1410(C)(1) of the CLUO, which requires a site survey to determine the potential for paleontological resources and development of a mitigation plan if merited, to protect identified paleontological resources. Impact GEO-4 identified that none of the alternatives would obstruct continued aggregate mining of the 20,000-acre CCAP area.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant geology or soils impacts would occur that are not addressed in Section 3.7, "Geology and Soils." Thus, geology and soil impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-8: GREENHOUSE GASES AND CLIMATE CHANGE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Greenhouse gas emissions (GHG) impacts of the CLUO under the five alternatives are addressed in Section 3.8, "Greenhouse Gases and Climate Change." As discussed in Section 3.8, climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Thus, GHG emissions and the associated impact of climate change are not affected by concentration of cannabis uses in a subregion of the County.

As discussed under Impact GHG-1, the CLUO would align with both the Yolo County Climate Action Plan (CAP) and the local actions identified in the California 2017 Scoping Plan through its requirements of renewable energy procurement, energy-efficient lighting, water conservation, and drought tolerant landscaping. In instances where the CLUO would not align with these applicable plans adopted for the purposes of reducing greenhouse gas emissions, mitigation measures are recommended. Implementation of Mitigation Measure GHG-1 would ensure compliance all Yolo County CAP measures that are intended to reduce GHG emissions. With this mitigation measure, all alternatives under the CLUO would align with the Yolo County CAP and 2017 Scoping Plan, the applicable plans and policies adopted for the purpose of reducing GHG emissions.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant GHG or climate change impacts would occur that are not addressed in Section 3.8, "Greenhouse Gases and Climate Change." Thus, GHG and climate change impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-9: HAZARDS AND HAZARDOUS MATERIAL IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Hazard impacts of the CLUO under all five alternatives are addressed in Section 3.9, "Hazards and Hazardous Materials." Impacts HAZ-1 through HAZ-6 address impacts associated with hazards and hazardous materials.

Compliance with CCR Title 17, Division 1, Chapter 13 Sections 40223(b), 40225(a)(b)(d)(e), and 40280(a), would require implementation of safety measures for cannabis manufacturing operations that ensure protection of public health and safety. Cannabis uses and the associated use of pesticides and other hazardous materials would be regulated under the state requirements, and Section 8-2.1408(A) and Section 8-2.1408(W) of the CLUO include standards to protect public health and the environment that would limit the extent and type of pesticides used, as well as standards related to the handling and storage of hazardous materials and training requirements related to them. Implementation of CLUO Sections 8-2.1408(CC), 8-2.1408(OO), and 8-2.1410(C)(3) would require further evaluation of potential on-site contamination issues and require remediation of any contamination that presents a public safety issue.

Implementation of the CLUO could concentrate cannabis uses in a fire hazard severity zone that may lead to a wildfire hazard impact. Further analysis is provided below by alternative. The Guinda/Rumsey Cluster #1 and the Esparto Area Cluster #4 are located within a State Responsibility Area (SRA) and fire hazard severity zones.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the 78 existing and eligible cannabis cultivation sites, and nine of the 78 sites are assumed to relocate under Alternative 1 as part of compliance with the CLUO. Exhibit 3.9-8 shows the extent of existing and eligible cultivation sites within the fire hazard severity zones. Impact HAZ-6 identifies that cultivation sites would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Compliance with these standards would ensure that relocated cultivation uses do not create or increase wildfire hazards to residents or buildings. Impacts associated with the concentration of cannabis uses (including the Guinda/Rumsey Cluster #1 and Esparto Area Cluster #4) related to wildfire hazards would be **less than significant**.

Alternative 2: All License Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites area assumed to relocate under Alternative 2 as part of compliance with the CLUO. This alternative would consist of the development of 30 relocated sites and 54 new cultivation and noncultivation cannabis uses. As shown in Exhibit 3.9-9, based on existing operations and assumptions used to define this alternative, it is assumed that this alternative would result in 20 new cannabis uses within the moderate fire hazard fire severity zone, of which seven could be located in or near the Guinda/Rumsey Cluster #1 and three in or near the Esparto Area Cluster #4. As described in Impact HAZ-6, cannabis uses would be required to comply with PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with fire protection standards provided in CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings. Alternative 2 wildfire hazard impacts associated with the concentration of cannabis uses (including the cluster areas identified in Exhibit 4-1) would be **less than significant**.

Alternative 3: All License Types with High Limits

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 3 as part of compliance with the CLUO. This alternative would consist of the development of nine relocated sites and 186 new cultivation and noncultivation cannabis uses. As shown in Exhibit 3.9-10, based on existing operations and assumptions used to define this alternative, it is assumed that this alternative would result in 35 new cannabis uses within the moderate fire hazard fire severity zone, of which 16 could be located in or near the Guinda/Rumsey Cluster #1 and two in or near the Esparto Area Cluster #4. As described under Alternative 2, cannabis uses under this alternative would be subject to state wildfire standards, state cannabis regulations for fire protection of manufacturing uses, and CLUO fire and emergency access requirements. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings. Alternative 3 wildfire hazard impacts associated with the concentration of cannabis uses (including the cluster areas identified in Exhibit 4-1) would be **less than significant**.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. As shown in Exhibit 3.9-11, based on existing operations and assumptions used to define this alternative, it is assumed that this alternative would result in 20 new cannabis uses within the moderate fire hazard fire severity zone, of which seven could be located in or near

the Guinda/Rumsey Cluster #1 and three in or near the Esparto Area Cluster #2. As described under Alternative 2, cannabis uses under this alternative would be subject to state wildfire standards, state cannabis regulations for fire protection of manufacturing uses, and CLUO fire and emergency access requirements. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings. Alternative 4 wildfire hazard impacts associated with the concentration of cannabis uses (including the cluster areas identified in Exhibit 4-1) would be **less than significant**.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate as part of compliance with the CLUO and 52 new cannabis operations would be developed under Alternative 5. As shown in Exhibit 3.9-12, based on existing operations and assumptions used to define this alternative, it is assumed that this alternative would result in 21 new cannabis uses within the moderate fire hazard fire severity zone, of which seven could be located in or near the Guinda/Rumsey Cluster #1 and three in or near the Esparto Area Cluster #4. As described under Alternative 2, cannabis uses under this alternative would be subject to state wildfire standards, state cannabis regulations for fire protection of manufacturing uses, and CLUO fire and emergency access requirements. Compliance with these standards would ensure that cannabis uses do not create or increase wildfire hazards to residents or buildings. Alternative 5 wildfire hazard impacts associated with the concentration of cannabis uses (including the cluster areas identified in Exhibit 4-1) would be **less than significant**.

IMPACT OVC-10: HYDROLOGY AND WATER QUALITY IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Hydrology and water quality impacts of the CLUO under the five alternatives are addressed in Section 3.10, "Hydrology and Water Quality." Impact HYDRO-1 through HYDRO-4 address impacts associated with hydrology and water quality.

As identified in Impact HYDRO-1, cannabis uses would be required to comply with the water quality control requirements of SWRCB Order WQ 2019-0001-DWQ. and Sections 8-2.1408(J) and 8-2.1408(V) of the CLUO, the Yolo County ILRP, and the County's Stormwater Management and Discharge Ordinance and Code. This would be accomplished through on-site erosion control, use of construction and operational BMPs, and to route discharge drainage and stormwater into a County-approved on-site stormwater management system. Compliance with these standards would ensure that cannabis uses do not create surface or groundwater quality impacts in any subregion of the County regardless of concentration of cannabis sites.

Impact HYDRO-2 identifies that total water demand for assumed cultivation uses under the CLUO alternatives would range from 1.69 to 2.99 afy per acre for cultivation uses (depending on the alternative) and 0.73 to 0.76 afy per acre for noncultivation uses. This groundwater demand per acre is below the County's typical agricultural per acre water demands, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). This change in agricultural water demand would not result in substantial groundwater resource impacts in subregions of the County or countywide. The CLUO alternatives would not create substantial impervious surfaces large enough to substantially interfere with countywide groundwater infiltration that occurs over approximately 545,000 acres of land designated as Agriculture under the General Plan.

As discussed in Impact HYDRO-3, cannabis uses would be subject to the requirements of Yolo County Code Sections 8-4.501, 8-4.502 and 8-4.506 (as required under CLUO Sections 8-2.1408[F] and 8-2.1408[OO] regarding building and site design). In addition, Section 8-4.506 of the Yolo County Improvement Standard the flood protection ordinance, prohibits any development that would increase the base flood elevation over 1 foot. Section 8-2.1408(J) of the CLUO also requires that site drainage be accommodated in an approved on-site storm management system. Compliance with these standards would offset drainage impacts for each cannabis site by ensuring that drainage is managed on each cannabis site and avoid contributing to local or regional drainage and flooding impacts in the County.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant hydrology or water quality impacts would occur that are not addressed in Section 3.10, "Hydrology and Water Quality." Thus, hydrology and water quality impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

IMPACT OVC-11: LAND USE AND PLANNING IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Land use and planning impacts of the CLUO under all five alternatives are analyzed in Section 3.11, "Land Use and Planning." Impacts LU-1 through LU-3 address impacts associated with land use and planning.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 1 due to compliance with the CLUO but no expansion of the total number of cannabis cultivation sites would occur.

As identified in Impact LU-1, existing and relocated cultivation sites would be subject to CLUO standards that are expected to result in improved land use conditions as compared to existing conditions through required site maintenance and good neighbor communication that would avoid nuisance issues (Sections 8-2.1408[U], 8-2.1408[CC], and 8-2.1408[PP]). Cultivation site features would not create new barriers or physical features (e.g., new highways or land use types that would obstruct existing public access and movement) that could physically divide an established community because construction and operation would be contained on parcels permitted for cannabis uses.

Land use and planning impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under Alternative 1.

Alternative 2: All License Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 2 as part of compliance with the CLUO. This alternative assumes the development of 30 relocated sites and 54 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-5, based on existing operations and assumptions made to define this alternative, the majority of these new cannabis uses are assumed to be located along the SR 16 corridor and near the community of Dunnigan. The following analysis focuses on the potential land use and planning impacts to the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that five new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 18 sites (38 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 2 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that four new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 12 (50 percent increase).

As discussed in LU-1, all cannabis uses seeking a Cannabis Use Permit would be subject to CLUO standards that require buffers (Section 8-2.1408[E]), implement good neighbor communication (Section 8-2.1408[U]), reduce public nuisance issues (Section 8-2.1408[CC]), and maintain sites (Section 8-2.1408[PP]) that would address potential nuisance and compatibility concerns that could be perceived as physical divisions within a community. Cannabis site features would not create new barriers or physical features (e.g., new highways or land use types that would obstruct existing public access and movement) that could physically divide an established community because construction and operation would be contained on parcels permitted for cannabis uses. As noted in Impact LU-3, this alternative assumes that new employees would be able to seek housing in the region without necessitating the construction of unplanned housing in this cluster.

Land use and planning impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under Alternative 2.

Alternative 3: All License Types with High Limits

This alternative would have the largest number of new cannabis uses in the County from the assumed development of nine relocated sites and the additional 186 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-6, based on existing operations and assumptions made to define this alternative, Alternative 3 is assumed to result in the greatest concentration of new cannabis uses of all the alternatives along the SR 16 corridor and along portions of the I-5 corridor. The following analysis focuses on the potential land use and planning impacts to the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that 16 new cannabis uses (cultivation, nursery, retail, processing, distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 39 sites (70 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that 10 new cannabis uses (cultivation, distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 23 sites (77 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that 15 new cannabis uses (cultivation, distribution, nurseries, testing, microbusiness, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 24 sites (166 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 3 assumes 75-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which is unlikely to substantively affect the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that 11 new cannabis uses (nursery, distribution, microbusiness, retail, testing, processing, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 (138 percent increase).

As discussed under Alternative 2, cannabis uses seeking a Cannabis Use Permit would be subject to CLUO standards that require buffers, good neighbor communication, nuisance correction processes, and site maintenance requirements that would address potential nuisance and compatibility concerns that could be perceived as physical divisions within a community. Cannabis site features would not create new barriers that could physically divide an established community. It is assumed that new employees would be able to seek housing in the region without necessitating the construction of unplanned housing in this cluster.

Land use and planning impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under Alternative 3.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. As shown in Exhibit 2-7, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area further concentrating the density of cannabis uses in these areas of the County. The following analysis focuses on the potential land use and planning impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 4 would result in the conversion of all of these existing cannabis sites to mixed-light or indoor cultivation that would involve the construction of greenhouse buildings in this cluster. Because all uses are required to be conducted indoors, Alternative 4 does not assume buffers. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that seven new cannabis uses (distribution, nurseries, testing, processing ,and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 16 sites (78 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 4 would result in the conversion of existing outdoor cannabis sites to mixed-light (greenhouses) or indoor cultivation that would involve the construction of new structures in this cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural operations of varying sizes. This alternative assumes that five new cannabis uses (distribution, microbusiness, retail, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 13 (63 percent increase).

Land use and planning impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under Alternative 4.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

This alternative assumes the development of 30 relocated sites as part of compliance with the CLUO and 50 new cultivation and noncultivation cannabis uses. As shown in Exhibit 2-8, based on existing operations and assumptions used to define this alternative, the majority of these new cannabis uses would be located along the SR 16 corridor and near the Dunnigan area. The following analysis focuses on the potential land use and planning impacts within the four identified cluster areas.

There are currently 23 existing and eligible cannabis uses in the Guinda/Rumsey Cluster #1 (see Exhibit 4-1). Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. There are currently limited commercial and production agricultural operations in this area including Cache Creek Lavender Farm and Casa Rosa Farms. This alternative assumes that seven new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 30 sites (30 percent increase).

There are currently 13 existing and eligible cannabis uses in the Willow Oaks/Monument Hills Cluster #2. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Willow Oaks/Monument Hills Cluster currently contains residential, recreational (golf course), airport, and production agricultural operations. This alternative assumes that six new cannabis uses (distribution, nursery, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 19 sites (46 percent increase).

There are currently nine existing and eligible cannabis uses in the Dunnigan Area Cluster #3. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Dunnigan area currently contains several commercial and production agricultural operations. This alternative assumes that eight new cannabis uses (cultivation, distribution, nurseries, testing, processing and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 17 sites (88 percent increase).

There are currently eight existing and eligible cannabis uses in the Esparto Area Cluster #4. Alternative 5 assumes 1,000-foot buffers between outdoor cannabis uses and defined sensitive uses (CLUO Section 8-2.1408[E]) which would have the effect of decreasing the density of cannabis uses in the cluster. The Esparto Area currently consists of residential and commercial uses that are surrounded by agricultural

operations of varying sizes. This alternative assumes that three new cannabis uses (distribution, microbusiness, and manufacturing) could be located in or near this cluster. These uses would potentially increase the total number of cannabis uses in this cluster to 11 (38 percent increase).

Land use and planning impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under Alternative 5.

IMPACT OVC-12: NOISE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Noise impacts of the CLUO under the five alternatives are addressed in Section 3.12, "Noise." Impact NOI-1 through NOIS-3 address noise impacts.

While assumed cannabis uses under the alternatives could concentrate cannabis uses in the four cluster areas identified in Exhibit 4-1, no significant noise impacts would occur that are not addressed in Section 3.12. Thus, noise impacts associated with concentration of cannabis uses within smaller geographic areas would be **less than significant** under all alternatives.

Traffic noise was addressed in Impact NOI-3 that factored the concentration of cannabis uses in subregions of the County for each of the five alternatives. As identified in Impact NOI-3, no significant traffic noise impacts would occur on any of the roadway segments evaluated. Therefore, this impact analysis below focusses on construction and operational stationary noise only.

Given the anticipated low intensity, short-term nature, sporadic/intermittent, and mobile nature of construction activities, development associated with construction activities from adjacent new cannabis uses would not likely combine to affect any one receptor. In addition, Mitigation Measure NOI-1 would require all construction activity to occur during daytime hours; thus, not exposing receptors to substantial noise during sensitive times of the day.

New cannabis uses could use on-site diesel generators, fans, or refrigerated storage units. If new cannabis uses were located next to each other, noise could combine resulting in increased levels at offsite receptors. However, the CLUO would require all cannabis uses to comply with adopted General Plan Noise Compatibility Guidelines and demonstrate compliance in building and site design (Sections 8-2.1408[F], 8-2.1408[BB], and 8-2.1408[NN]). Compliance may consist of placement of noise barriers around generators, fans, and externally-mounted air conditioning units.

Noise impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under all alternatives.

IMPACT OVC-13: PUBLIC SERVICE IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

Section 3.13, "Public Services," describes the public services provided in the County. Public services and recreation are provided by the County and service districts in the County that provide services within defined service areas as well as countywide. Law enforcement and recreation services and facilities are countywide and are not focused in a specific subregion of the County. As identified in Impact PS-1 and PS-2, implementation of the CLUO under each of the five alternatives would not increase the demand for public services that would require the construction of new or expanded facilities that could result in environmental impacts.

Impact PS-2 addresses law enforcement and concludes that impacts are less than significant based of existing requirements and provisions proposed as part of the CLUO. To address law enforcement service demands, cannabis sites would be subject to security measures in the CLUO set forth in Section 8-2.1408(LL) and Section 8-2.1410(D) would ensure that law enforcement and safety measures are incorporated into each site. CCR Sections 5042, 5043, 5046, 5047, 40200, and 40205 require on-site security measures. These standards would minimize the potential for criminal activities through controlled

access for authorized personnel and locked door requirements at noncultivation sites (CCR Sections 5042 and 5043), security measures that include video surveillance, security personnel, lock and alarm system requirements (CCR Sections 5044, 5045, 5046, and 5047). Manufacturing sites are required to provide a security plan that implements access controls to the building, alarm system requirements and video surveillance (CCR Sections 40200 and 40205). Construction of cannabis-related buildings under all of the CLUO alternatives would be required to pay the County Facilities and Services Development Fee at the building permit issuance that would provide funding for facility improvements or new government service facilities whose timing would be determined by County as part of facilities planning.

Implementation of the CLUO is not expected to result in a direct loss of park and recreational facilities as cannabis uses are not permitted in public and open space zones. All cannabis sites would be required to demonstrate compliance with the CLUO nuisance standards (Sections 8-2.1408[E], 8-2.1408[U], 8-2.1408[BB], 8-2.1408[CC], 8-2.1408[DD], and 8-2.1408[OO]). These standards would ensure that noise, odor, and other activities at cultivation sites do not create public nuisances that would adversely affect park and recreation facility users.

Implementation of the CLUO could concentrate cannabis uses in fire protection districts that may lead to fire protection service impacts. Further analysis is provided below by alternative. Overall, public service impacts associated with the concentration of cannabis uses in any of the four identified areas of potential over-concentration would be **less than significant** under all alternatives.

Alternative 1: Cultivation (Ancillary Nurseries and Processing Only) with Existing Limits (Existing Operations with CLUO) (CEQA Preferred Alternative)

Alternative 1 is assumed to retain the existing concentration of existing and eligible cultivation sites shown in Exhibit 4-1. Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under this alternative based on zoning constraints proposed in the CLUO. The assumed nine relocations could result in a further concentration of cannabis uses in one of the four clusters identified in Exhibit 4-1.

Impact PS-1 identifies that cultivation sites would be required to comply with CLUO Sections 8-2.1408(F) that requires compliance with building, electrical, and fire codes as well as provision of fire breaks, Section 8-2.1408(K) that requires provision of a rapid entry system for emergency personnel, Section 8-2.1408(FF) provision of parking that does not obstruct fire access, and Section 8-2.1408(OO) that requires demonstration of required fire standards in site design details. Cultivation sites would also be subject to requirements under CCR Title 24, Part 2, Chapter 7A, which requires buildings to be fire resistant (roof material, decking material, accessory structures, and venting to resist the intrusion of flame and ember); PRC Section 4291, which addresses defensible space and fuel modification standards; and provision of sufficient fire equipment and emergency access standards. Compliance with these standards would ensure that relocated cultivation uses do not create or increase fire protection services that necessitate new or expanded fire facilities. Cannabis use concentration impacts related to fire protection services would be **less than significant**.

Alternative 2: All License Types with Moderate Limits

Thirty of the 78 existing and eligible cannabis cultivation sites area assumed to relocate under Alternative 2 as part of compliance with the CLUO. This alternative would consist of the development of 30 relocated sites and 54 new cultivation and noncultivation cannabis uses. As shown in Exhibit 3.13-3, based on existing operations and assumptions made to define this alternative, this alternative assumes new cannabis uses in the following fire protection districts (FPDs):

- Capay Valley FPD: 13 new cannabis uses in addition to the 25 existing and eligible cultivation sites (the Guinda/Rumsey Cluster is located in this FPD)

- Dunnigan FPD: seven new cannabis uses in addition to the 10 existing and eligible cultivation sites (the Dunnigan Cluster is located in this FPD)

- Yolo FPD: seven new cannabis uses in addition to the four existing and eligible cultivation sites
- Winters FPD: seven new cannabis uses in addition to the two existing and eligible cultivation sites
- Willow Oak FPD: five new cannabis uses in addition to the 12 existing and eligible cultivation sites (the Willow Oaks/Monument Hills Cluster is located in this FPD)
- Esparto FPD: six new cannabis uses in addition to the seven existing and eligible cultivation sites (the Esparto Area Cluster is located in this FPD)

As identified in Impact PS-1, implementation of the CLUO would not increase the demand for fire protection services in a manner that would require the construction of new or expanded facilities that could result in environmental impacts. Cannabis uses would be subject to PRC Section 4291 and CLUO Section 8-2.1408(F) for provision of fire breaks to protect buildings and avoid the spread of wildfire; CCR Title 24, Part 2, Section 701A3.2 and CLUO Section 8-2.1408(Q) for building design to be fire resistant and avoid the creation of a fire; and CLUO Section 8-2.1408(K) to ensure adequate access. Manufacturing uses would be required to comply with CCR Title 17, Division 1, Chapter 13, Sections 40223(b), 40225(b), 40225(d), and 40280(a), which require fire control measures that include proper handling of flammable materials to avoid fire hazards and engineering of the closed loop extraction systems to avoid accidental fire events. Compliance with these standards would ensure that relocated cultivation uses do not create or increase fire protection services that necessitate new or expanded fire facilities.

Impacts to fire protection services related to concentration of cannabis uses would be **less than significant**.

Alternative 3: All License Types with High Limits

Nine of the 78 existing and eligible cannabis cultivation sites are assumed to relocate under Alternative 3 as part of compliance with the CLUO. This alternative would consist of the development of nine relocated sites and 186 new cultivation and noncultivation cannabis uses. As shown in Exhibit 3.13-4, based on existing operations and assumptions made to define this alternative, this alternative assumes new cannabis uses in the following fire protection districts (FPDs):

- Capay Valley FPD: 29 new cannabis uses in addition to the 25 existing and eligible cultivation sites (the Guinda/Rumsey Cluster is located in this FPD)
- Dunnigan FPD: 22 new cannabis uses in addition to the 10 existing and eligible cultivation sites (the Dunnigan Cluster is located in this FPD)
- Yolo FPD: six new cannabis uses in addition to the four existing and eligible cultivation sites
- Springlake FPD: 10 new cannabis uses in addition to the one existing and eligible cultivation site
- Winters FPD: 10 new cannabis uses in addition to the two existing and eligible cultivation sites
- Willow Oak FPD: nine new cannabis uses in addition to the 12 existing and eligible cultivation sites (the Willow Oaks/Monument Hills Cluster is located in this FPD)
- Madison FPD: nine new cannabis uses in addition to the five existing and eligible cultivation sites
- Esparto FPD: 10 new cannabis uses in addition to the seven existing and eligible cultivation sites (the Esparto Area Cluster is located in this FPD)

As identified in Impact PS-1, implementation of the CLUO would not increase the demand for fire protection services in a manner that would require the construction of new or expanded facilities. As described under Alternative 2, cannabis uses would be required to comply with state and CLUO fire protection and emergency access requirements, including specific requirements for cannabis manufacturing uses. Compliance with

these standards would ensure that relocated cultivation uses do not create or increase fire protection services that necessitate new or expanded fire facilities.

Impacts to fire protection services related to concentration of cannabis uses would be **less than significant**.

Alternative 4: Mixed-Light/Indoor License Types Only with Moderate Limits, No Hoop Houses or Outdoor Types

Alternative 4 assumes the relocation of nine of the 78 existing and eligible cannabis cultivation sites. This alternative also assumes that 75 of the existing and eligible outdoor cannabis cultivation sites would convert entirely to indoor or mixed-light (greenhouse) cultivation. It also assumes the development of 54 new cannabis cultivation and noncultivation uses. As shown in Exhibit 3.13-5, based on existing operations and assumptions made to define this alternative, this alternative assumes new cannabis uses in the following fire protection districts (FPDs):

- Capay Valley FPD: 13 new cannabis uses in addition to the 25 existing and eligible cultivation sites (the Guinda/Rumsey Cluster is located in this FPD)
- Dunnigan FPD: seven new cannabis uses in addition to the 10 existing and eligible cultivation sites (the Dunnigan Cluster is located in this FPD)
- Yolo FPD: 10 new cannabis uses in addition to the four existing and eligible cultivation sites
- Winters FPD: seven new cannabis uses in addition to the two existing and eligible cultivation sites
- Willow Oak FPD: six new cannabis uses in addition to the 12 existing and eligible cultivation sites (the Willow Oaks/Monument Hills Cluster is located in this FPD)
- Esparto FPD: seven new cannabis uses in addition to the seven existing and eligible cultivation sites (the Esparto Area Cluster is located in this FPD)

As identified in Impact PS-1, implementation of the CLUO would not increase the demand for fire protection services in a manner that would require the construction of new or expanded facilities. As described under Alternative 2, cannabis uses would be required to comply with state and CLUO fire protection and emergency access requirements, including specific requirements for cannabis manufacturing uses. Compliance with these standards would ensure that relocated cultivation uses do not create or increase fire protection services that necessitate new or expanded fire facilities.

Impacts to fire protection services related to concentration of cannabis uses would be **less than significant**.

Alternative 5: All License Types with Moderate Limits, within Agricultural Zones Only, No Retail

Thirty of the 78 existing and eligible cannabis cultivation sites are assumed to relocate as part of compliance with the CLUO and 52 new cannabis operations would be developed under Alternative 5. As shown in Exhibit 3.13-6, based on existing operations and assumptions made to define this alternative, this alternative assumes new cannabis uses in the following fire protection districts (FPDs):

- Capay Valley FPD: 14 new cannabis uses in addition to the 25 existing and eligible cultivation sites (the Guinda/Rumsey Cluster is located in this FPD)
- Dunnigan FPD: eight new cannabis uses in addition to the 10 existing and eligible cultivation sites (the Dunnigan Cluster is located in this FPD)
- Yolo FPD: eight new cannabis uses in addition to the four existing and eligible cultivation sites
- Winters FPD: seven new cannabis uses in addition to the two existing and eligible cultivation sites

- Willow Oak FPD: six new cannabis uses in addition to the 12 existing and eligible cultivation sites (the Willow Oaks/Monument Hills Cluster is located in this FPD)

- Esparto FPD: four cannabis uses in addition to the seven existing and eligible cultivation sites (the Esparto Area Cluster is located in this FPD)

As identified in Impact PS-1, implementation of the CLUO would not increase the demand for fire protection services in a manner that would require the construction of new or expanded facilities. As described under Alternative 2, cannabis uses would be required to comply with state and CLUO fire protection and emergency access requirements, including specific requirements for cannabis manufacturing uses. Compliance with these standards would ensure that relocated cultivation uses do not create or increase fire protection services that necessitate new or expanded fire facilities.

Impacts to fire protection services related to concentration of cannabis uses would be **less than significant**.

IMPACT OVC-14: TRANSPORTATION AND CIRCULATION IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

The following analysis is based on the impact analysis provided in Section 3.14, "Transportation and Circulation." The reader is referred to Impacts TRANS-1 and TRANS-2 for detailed analysis of alternative impacts as well as Section 3.0, "Approach to the Environmental Analysis," regarding impacts to alternative forms of transportation including bicycle, pedestrian, and transit uses as well as impacts regarding to safety and emergency access.

The transportation network in the unincorporated area of the County is rural in nature and transit service is minimal. The concentration of cannabis uses located in distinct subregions of the County under the five alternatives would not result in changes to the rural nature of the transportation network or the provision of transit service in the area. Therefore, the concentration of cannabis uses would not result in changes to the transportation network, travel characteristics, or mix in land use types and the associated land use relationships such that the demand for transit, bike, or pedestrian would be affected. Additionally, the concentration of cannabis uses in subregions of the County would not conflict with a program, plan, ordinance or policy addressing pedestrian, bicycle, and transit facilities or otherwise decrease the performance or safety of such facilities.

The CLUO provides specific requirements and performance standards for driveways accessing County-maintained roads, as well as for the design of individual sites. Specifically, CLUO Section 8-2.1408(K) requires that driveway approaches meet current County and/or Caltrans standards as well as adequate emergency access that includes an all-weather surface road base. CLUO Section 8-2.1408(JJ) requires permittees to conduct appropriate roadway improvements to address operational and safety needs. Compliance with these performance standards would serve to mitigate each individual cannabis site's impact on access and roadway conditions regardless of the concentration of cannabis uses in a subregion.

Traffic operations and consistency with policies of the General Plan Circulation Element are addressed in Impact TRANS-1. The operational analysis provided in Tables 6 and 7 of Appendix G assumes the locations and concentration of cannabis uses in the subregions of the County under each alternative. No significant operational impacts or conflict with the General Plan Circulation Element would occur from a concentration of cannabis uses in any particular subregion.

The VMT analysis addressed in Impact TRANS-2 factors the assumed locations of and concentration of cannabis uses in subregions of the County under each alternative. No significant VMT impacts would occur for any of the alternatives.

Therefore, transportation impacts associated with the concentration of cannabis uses in the four areas of potential over-concentration would be **less than significant** under all alternatives.

IMPACT OVC-15: UTILITIES AND SERVICE SYSTEM IMPACTS FROM OVERCONCENTRATION OF CANNABIS USES

As addressed in Impact UTIL-1 and UTIL-2, CLUO potential impacts to public water and wastewater systems would be less than significant under all alternatives. Implementation of Mitigation Measure HYDRO-4, and proposed CLUO Sections 8-2.1408(TT) addressing wastewater services and Section 8-2.1408(VV) addressing water service verification would mitigate impacts to services, including potential impacts from concentrations of cannabis uses near these service providers.

Solid waste services is a provided countywide. As addressed in Impact UTIL-3, CCR Sections 8108 and 8308 require cultivation, nurseries, and processing facilities to have a cannabis waste management plan that identifies methods for managing cannabis waste, including on-premises composting, collection and processing by an agency, or self-hauling to a permitted facility. The Yolo County Division of Integrated Waste Management has also prepared internal procedures for the disposal of waste generated from cannabis operations. As identified in Table 315-1, the Yolo County Central Landfill is anticipated to have adequate capacity for the foreseeable future (2081) to accommodate cannabis related waste in addition to other solid waste accepted for all alternatives. No solid waste service impacts associated with the concentration of cannabis uses in subregions of the County are expected.

Based on the above, utility service impacts associated with the concentration of cannabis uses in any of the four identified areas of potential overconcentration would be **less than significant** under all alternatives.

5 ALTERNATIVES

5.1 INTRODUCTION

State CEQA Guidelines Section 15126.6(a) requires EIRs to describe:

> a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (PRC Section 21002.1), 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.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (Section 15126.6[d]).

The State CEQA Guidelines require that the "no project" alternative be considered (Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "shall also identify an environmentally superior alternative among the other alternatives" (Section 15126.6[e][2]).

In defining "feasibility" (e.g., "feasibly attain most of the basic objectives of the project"), State CEQA Guidelines Section 15126.6(f)(1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted

above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body—here, the Yolo County Board of Supervisors (Board). (See PRC Sections 21081.5, 21081[a][3].) The Board, for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint and may reject an alternative on that basis provided that the Board adopts a finding, supported by substantial evidence, to that effect and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence.

As described in Chapter 2, "Description of Preferred Alternative and Equal Weight Alternatives," this draft EIR evaluates a range of five alternatives at an equal level of detail. This chapter includes an evaluation of the No Project–No CLUO Alternative, compares the environmental impacts of the six alternatives, and identifies the environmentally superior alternative.

5.2 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project 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. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR.

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternative was considered by Yolo County but is not evaluated further in this draft EIR for the reasons described below.

5.2.1 Ban on Commercial Cannabis Operations in the County

Under this alternative, the County would implement a ban on commercial cannabis cultivation operations. No new commercial cannabis cultivation, processing, or distribution facilities would be allowed. This alternative would also result in the cessation of commercial cultivation cannabis operations currently allowed under the Yolo County Code Title 5, Chapter 20 (Marijuana Cultivation Ordinance) and would include the restoration of existing sites to preexisting conditions. Enforcement activities would be undertaken by the County and other agencies, if necessary, to ensure proper closure of existing commercial cannabis cultivation operations.

This alternative was determined early on to be infeasible. It would be inconsistent with the passage of state Proposition 68 and with Yolo County voter passage of Measure K, authorizing the County to impose a general tax on the gross receipts of commercial cannabis activity in unincorporated Yolo County. This alternative also would not be consistent with most of the basic objectives of the project. Project objectives are listed below, with the objectives that clearly would not be met shown in **bold**:

A. Protect the public health, safety, and welfare.

B. Protect environmental resources and minimize environmental impact.

C. Ensure neighborhood compatibility.

D. **Ensure safe access to medical cannabis for patients.**

E. Support agricultural economic development including recognition of valuable new crops, preservation of agricultural land, and creation of opportunities for new farmers.

F. Recognize cannabis as an agricultural crop with unique challenges including Federal classification, legal history, crop value, transaction security, distinct odor, and energy and water requirements.

G. Recognize competing and evolving community values and interests related to the cannabis industry.

H. Avoid establishing undesirable precedents for other agricultural sectors.

I. Avoid unintended consequences including unforeseen community impacts and over-regulation that drives cannabis activities underground.

J. Allow for adaptation to changing market, cultural, and regulatory considerations over time.

K. Acknowledge the will of the voters in passing Proposition 64, Marijuana Legalization, in 2016.

5.3 NO PROJECT–NO CANNABIS LAND USE ORDINANCE ALTERNATIVE

Evaluation of the No Project Alternative is required under CEQA (CEQA Guidelines Section 15126.6[e]). The purpose of the No Project Alternative is to allow a comparison of the environmental impacts of approving the proposed project with the effects of not approving it. According to Section 15126.6(e)(3) of the CEQA Guidelines, the discussion of the "no project" alternative will usually proceed along one of two lines:

(A) When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the "no project" alternative will be the continuation of the existing plan, policy or operation into the future. Typically, this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan.

(B) 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.

The No Project–No CLUO Alternative is similar to Alternative 1 in that it assumes continued operation of the 78 cannabis cultivation sites that are currently allowed to cultivate in the County under Yolo County Code Title 5, Chapter 20 (Marijuana Cultivation Ordinance). However, the No Project–No CLUO Alternative would not include the adoption of the proposed CLUO. Rather, it would assume continued operation of those licensed facilities under the existing licensing program (Yolo County Code Title 5, Chapter 20) rather than under the proposed CLUO.

The following discussion compares the impacts of the No Project–No CLUO Alternative with those of the five CLUO alternatives. This analysis provides information sufficient to allow for a meaningful analysis and comparison with the CLUO alternatives.

AESTHETICS

As identified in Section 3.1, "Aesthetics," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," impacts to scenic viewsheds, state scenic highways, and lighting and glare would be less than significant for all alternatives. This conclusion was based on a determination that the CLUO contains performance standards that include screening requirements (Section 8-2.1408[KK]), native tree retention requirements (Section 8-2.1408[RR]), and lighting restrictions (Sections 8-2.1408[X] and 8-2.1408[Z]). The Marijuana Cultivation Ordinance includes provisions for fencing and controlled lighting to preclude impacts on the night sky; however, the proposed CLUO goes further with additional design and site management requirements. Aesthetic impacts under project, cumulative, and overconcentration conditions related to visual character were conservatively identified as significant and unavoidable for all alternatives in

recognition that cannabis activities have distinct visual characteristics that may affect the aesthetic quality of the surrounding community. Aesthetic impacts under the No Project–No CLUO Alternative are likely to be **greater** than those of Alternative 1 because no CLUO regulations would apply. The No Project–No CLUO Alternative is likely to have **less** impact than Alternative 2, 3, 4, or 5 because it would not expand the number of cannabis activities in the County.

AGRICULTURAL RESOURCES

No agricultural resource impacts were identified in Section 3.2, "Agricultural Resources," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the five CLUO alternatives. Commercial cannabis uses are considered by the state and County to be agricultural uses and would not result in the loss of farmland or otherwise conflict with existing agricultural uses in the County. This alternative would also not result in significant impacts on agricultural resources because it would retain existing cannabis cultivation sites. However, the No Project–No CLUO Alternative agricultural resource may have impacts that are **greater** than those of Alternative 1, 2, 3, 4, or 5 because the Marijuana Cultivation Ordinance does not include requirements to maintain the cannabis site in a manner that avoids invasive weeds and pests that could affect adjoining agricultural uses, as provided in CLUO Section 8-2.1408(B).

AIR QUALITY AND ODORS

No significant air quality impacts were identified in Section 3.3, "Air Quality and Odors," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the five CLUO alternatives because they would be required to comply with dust control and energy-saving provisions outlined in Sections 8-2.1408(K), 8-2.1408(L), 8-2.1408(O), 8-2.1408(T), and 8-2.1408(V) of the CLUO, as well as Yolo-Solano Air Quality Management District best management practices. The No Project – No CLUO Alternative would likely have air quality impacts **similar** to those of Alternative 1. It would likely have **less** impact than Alternative 2, 3, 4, or 5 because it would not create new or result in relocated cannabis uses in the County that generate new construction and operational air pollutant emissions.

All of the CLUO alternatives would result in significant and unavoidable odor impacts project, cumulative, and overconcentration conditions. The No Project–No CLUO Alternative could have **greater** odor impacts than Alternative 1, 2, 4, or 5 because it would not include the stringent odor nuisance standards and control requirements of CLUO Sections 8-2.1408(CC) and 8-2.1408(DD). Odor impacts with this alternative are likely to be less than Alternative 3, because Alternative 3 assumes a significantly expanded number of cannabis sites.

BIOLOGICAL RESOURCES

Significant but mitigable biological resource impacts were identified in Section 3.4, "Biological Resources," for all alternatives. These impacts would be mitigated for all alternatives through compliance with CLUO performance standards, State Water Resources Control Board Order WQ 2019-0001-DWQ, and implementation of mitigation identified in Section 3.4. This conclusion was based on a determination that the CLUO and mitigation contain protection standards for special-status species and habitat and required participation in the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). No significant biological resource impacts were identified in Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration."

The No Project–No CLUO Alternative is likely to have **greater** biological resource impacts than Alternative 1 under mitigated conditions because it would not include the protection measures of the CLUO, including Sections 8-2.1408(D) and 8-2.1408(RR), which would protect on-site special-status species and habitats, require participation in the Yolo HCP/NCCP, and include tree protection measures. This alternative would also not provide for restoration of cultivation sites that cease operations as required under CLUO Section 8-2.1412(C). The No Project–No CLUO Alternative would likely have **less** impact than Alternative 2, 3, 4, or 5

because it would retain the existing cultivation sites and would not create new cannabis uses in the County that could adversely affect biological resources.

CULTURAL RESOURCES

No significant archaeological, historical, or tribal cultural resource impacts were identified in Section 3.5, "Cultural Resources," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for the all alternatives based on compliance with CLUO performance standards. The No Project–No CLUO Alternative is likely to have **greater** cultural resource impacts than Alternative 1 under mitigated conditions because it would not include the protection measures of the CLUO. The No Project–No CLUO Alternative would likely have **less** impact than Alternative 2, 3, 4, or 5 because it would not expand cannabis uses in the County, require relocation of existing operations, or allow noncultivation uses, and would therefore avoid new archaeological, historical, and tribal cultural resources and would

ENERGY

No significant impacts related to energy use were identified in Section 3.6, "Energy," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards that require renewable energy use (CLUO Sections 8-2.1408[O], 8-2.1408[F], 8-2.1408[T], and 8-2.1408[Z]). The No Project–No CLUO Alternative would likely result in **greater** energy impacts than Alternative 1 because it would not include the CLUO requirements for renewable energy use. This alternative would likely have **less** impact than Alternative 2, 3, 4, or 5 because it would not expand cannabis uses that could affect energy usage in the County.

GEOLOGY AND SOILS

No significant impacts related to geology and soils were identified in Section 3.7, "Geology and Soils," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and State Water Resources Control Board Order WQ 2019-0001-DWQ. This alternative would likely have **greater** impact than Alternative 1 because it would not include the CLUO requirements for geology and soils. The No Project–No CLUO Alternative may have **less** impact than Alternative 2, 3, 4, or 5 because it would not expand cannabis uses in the County, require relocation of existing operations, or allow noncultivation uses in the County that could affect soil conditions or paleontological resources from relocated or new cannabis uses.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified in Section 3.8, "Greenhouse Gas Emissions and Climate Change," and Section 4.1 "Cumulative Impacts," all of the alternatives would result in significant but mitigatable impacts from increases in greenhouse gas (GHG) emissions. These impacts are mitigated for all alternatives through compliance the County Climate Change Plan and with CLUO performance standards. This conclusion was based on a determination that the CLUO and mitigation contain requirements for the use of renewable energy and compliance with the Yolo County Climate Action Plan. No significant GHG impacts were identified in Section 4.2, "Overconcentration." This alternative would likely have a **greater** impact than Alternative 1 under mitigated conditions because it would not include the requirements of CLUO Section 8-2.1408(O) to use 50-percent renewable energy, and it would not implement Sections 8-2.1408(F) and 8-2.1408(Z), which address GHG emissions through energy use. The No Project–No CLUO Alternative may have **less** impact than Alternative 2, 3, 4, or 5 because it would not create new cannabis uses in the County that would generate GHG emissions.

HAZARDS AND HAZARDOUS MATERIALS

No significant impacts related to hazards were identified in Section 3.9, "Hazards and Hazardous Materials," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state standards. The No Project–No CLUO Alternative would likely have a **greater** impact on hazards and hazardous materials than Alternative 1 because it would not include CLUO Sections 8-2.1408(A), 8-2.1408(W), 8-2.1408(CC), and 8-2.1408(OO), which include standards regarding the use of pesticides and the handling of hazardous materials, or Sections 8-2.1408(F), 8-2.1408(K), and 8-2.1408(Q), regarding fire protection and emergency access that address wildland fire hazards. The No Project–No CLUO Alternative may have **less** impact than Alternative 2, 3, 4, or 5 because it would not create new cannabis uses in the County that may use hazardous materials.

HYDROLOGY AND WATER QUALITY

One significant impact related to compliance with water quality plans was identified in Section 3.10, "Hydrology and Water Quality," for all alternatives. All alternatives could result in significant but mitigatable impacts from conflicts with a water quality control plan. Mitigation would be achieved through compliance with CLUO performance standards, including modifications identified in mitigation measures. This conclusion was based on a determination that the CLUO contains water quality protections that are more stringent than applicable state law. No significant hydrology impacts were identified in Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration." The No Project–No CLUO Alternative would not include the more stringent protections afforded by the CLUO but would include compliance with state regulations regarding water quality under State Water Resources Control Board Order WQ 2019-0001-DWQ. Therefore, hydrology and water quality effects under the No Project–No CLUO Alternative would likely have **greater** impacts than those of Alternative 1 under mitigated conditions. The No Project–No CLUO Alternative may have **less** impact associated with groundwater and flooding than Alternative 2, 3, 4, or 5 because it would not create new cannabis uses in the County that could generate new groundwater demands or drainage impacts.

LAND USE AND PLANNING

No land use or population/housing impacts were identified in Section 3.11, "Land Use and Planning," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives. The No Project–No CLUO Alternative's impact on population and housing would likely be **similar** to that of Alternative 1 because it would not increase employment. This alternative may have **less** impact on population and housing than Alternative 2, 3, 4, or 5 because it would not generate additional employment from new cannabis uses.

NOISE

Significant but mitigable construction noise impacts were identified in Section 3.12, "Noise," for all alternatives through mitigation that would limit construction hours and noise generation. No significant traffic and stationary noise impacts would occur under any of the alternatives. No significant noise impacts were identified in Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration." The No Project–No CLUO Alternative would likely have **greater** impact from operational noise than Alternative 1, 2, 3, 4, or 5 because it because it does not include proposed noise controls included in the CLUO.

PUBLIC SERVICES

No significant public service impacts were identified in Section 3.13, "Public Services and Recreation," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state regulations. The No Project–No CLUO Alternative would likely have a **greater** impact than Alternative 1 because it would not implement CLUO Sections 8-2.1408(F), 8-2.1408(K), 8-2.1408(Q), and 8-2.1408(FF), which include more stringent controls related to fire safety. This alternative may have **less** impact on population and housing than Alternative 2, 3, 4, or 5 because it would not generate public service demand associated with new cannabis uses.

TRANSPORTATION AND CIRCULATION

No significant impacts related to traffic operations, consistency with County General Plan transportation policies, or vehicle miles traveled (VMT) were identified in Section 3.14, "Transportation and Circulation," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives. The No Project–No CLUO Alternative's traffic impacts would likely be **greater** than those of Alternative 1 because it would not implement CLUO standards that would promote trip reduction (Sections 8-2.1480[N] and 8-2.1408[JJ]). This alternative would likely have **less** impact than Alternative 2, 3, 4, or 5 because it would not create new cannabis uses in the County that would generate new traffic.

UTILITIES AND SERVICE SYSTEMS

No significant utility service impacts were identified in Section 3.15, "Utilities and Service Systems," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state regulations. This alternative could have impacts **greater** than those of Alternative 1 because it does not include the controls built into the CLUO. The No Project–No CLUO Alternative would likely have **less** impact than Alternative 2, 3, 4, or 5 because it would retain the existing cultivation sites and would not create new cannabis uses in the County that would generate new demand for utility services.

5.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Under unmitigated conditions, Alternative 1 is generally similar to the No Project Alternative but with the CLUO in effect. The CLUO is a robust and comprehensive set of proposed regulations, strengthened further by the modifications identified in the mitigation measures. Therefore, overall, Alternative 1 would be environmentally superior to the No Project Alternative under both mitigated and unmitigated conditions.

Under unmitigated conditions, Alternative 1 assumes slightly less cultivation and no noncultivation uses as compared to Alternatives 2, 4, and 5. Alternatives 2, 4, and 5 share the same assumptions for amount of cultivation, which would be slightly higher than for Alternative 1 and therefore may result in slightly greater impacts overall. Alternatives 2, 4, and 5 assume the same noncultivation uses. The main differences between Alternatives 2, 4, and 5 are that Alternative 4 assumes all uses occur indoors, and Alternative 5 assumes no retail and that all uses occur on agricultural zoned parcels. This means in general that most impacts under Alternatives 2, 4, and 5 would be similar when compared to each other, and they are likely to be greater than what would occur under Alternative 1. Key exceptions would be that Alternative 4 is likely to have lower impacts than all other alternatives for odor as a result of the assumption that all uses occur indoors under this alternative. Under unmitigated conditions (i.e., without implementation of odor control measures, such as carbon filters and scrubbers), odor released from a greenhouse can be more concentrated. Under unmitigated conditions, Alternative 3 assumes double the amount of cannabis uses in all categories and would have greater impacts in all categories than the other four alternatives as a result.

In sum, comparing the five equal-weight alternatives and the No Project–No CLUO Alternative, under unmitigated conditions, Alternative 1 would be environmentally superior overall. Alternative 4 would likely be the second most environmentally superior overall but likely better than Alternative 1 with respect solely to odor. Alternative 3 would be the least environmentally superior comparatively, in all areas. Alternatives 2 and 5 would fall between Alternatives 1 and 3.

It is important to note, however, that under mitigated conditions, Alternatives 1, 2, 4, and 5 perform similarly with all areas of impact, except aesthetics and odor, being mitigated to acceptable levels. Therefore, under mitigated conditions, Alternatives 1, 2, 4, and 5 are relatively equivalent to each other and arguably environmentally superior individually when compared to the No Project–No CLUO Alternative and Alternative 3.

Odor is conservatively identified as a significant and unavoidable impact for all alternatives despite application of the CLUO provisions because some amount of odor would occur and because odor, for a variety of reasons, is a subject of significant controversy by residents due to proximate exposure, subjective reactions, cultural concerns, and lack of certainty in the emerging field of cannabis odor analysis and control. This is true for all geographies analyzed in the DEIR: see Section 3.3, "Air Quality and Odors," regarding odor at the project level; see Section 4.1 regarding cumulative odor effects; and see Section 4.2, "Overconcentration," regarding odor impacts within smaller geographic sub-regions.

The potential for aesthetics impacts related to visual character is similarly identified as significant and unavoidable for all alternatives despite application of the CLUO provisions because aesthetic impacts are subjective, and cannabis uses have distinctly recognizable visual characteristics as compared to other traditional forms of agriculture in the County. This is true for all geographies analyzed in the DEIR: see Section 3.1, "Aesthetics," regarding visual character at the project level; see Section 4.1, "Cumulative Impacts," regarding cumulative visual character effects; and see Section 4.2, "Overconcentration," regarding visual character impacts within smaller geographic sub-regions.

The following analysis compares each of the five alternatives by environmental topic. Table 5-1 summarizes the impact comparison to Alternative 1 (CEQA Preferred Alternative). Environmental effects associated with overconcentration—i.e., the concentration of clusters of cannabis uses in discrete geographic areas of the County—are also summarized in Table 5-1, and Chapter 4.2 provides a detailed analysis of such effects.

Table 5-1 CLUO Alternatives Impact Comparisons

Alternatives Evaluated	Alternative 1: Cultivation (CEQA Preferred Alternative)	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor Types Only	Alternative 5: All License Types with Moderate Limits with No Retail and Ag Zone Only	No Project–No CLUO Alternative
Assumed Cannabis Uses	78 cult	80 cult 52 noncult	160 cult 104 noncult	80 cult 52 noncult	80 cult 50 noncult	78 cult
Impacts	Level of Significance After Mitigation	Comparison to Alternative 1				
Aesthetic Impacts						
AES-1: Scenic Vista	LTS	=	>	=	=	≥
AES-2: Scenic Highway	LTS	=	>	=	=	≥
AES-3: Visual Character	SUI	=	>	=	=	≥
AES-4: Light and Glare	LTS	=	>	=	=	≥
CUM-1: Cumulative	SUI	=	>	=	=	≥
OVC-1: Overconcentration	SUI	=	>	=	=	>
Agricultural Resource Impacts						
AG-1: Farmland Loss	LTS	=	=	=	=	≥
AG-2: Conflict with Zoning	LTS	=	=	=	=	≥
AG-3: Conflicts with Ag	LTS	=	=	=	=	≥
AG-4: Conflicts with GP	LTS	=	=	=	=	≥
CUM-2: Cumulative	LTS	=	=	=	=	≥
OVC-2: Overconcentration	LTS	=	=	=	=	≥
Air Quality and Odor Impacts						
AQ-1: Conflict with Policies	LTS	=	=	=	=	=
AQ-2: Construction	LTS	=	=	=	=	=
AQ-3: Operational	LTS	=	=	=	=	=
AQ-4: Odors	SUI	=	>	<	=	>

Table 5-1 CLUO Alternatives Impact Comparisons

Alternatives Evaluated	Alternative 1: Cultivation (CEQA Preferred Alternative)	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor Types Only	Alternative 5: All License Types with Moderate Limits with No Retail and Ag Zone Only	No Project–No CLUO Alternative
Assumed Cannabis Uses	78 cult	80 cult 52 noncult	160 cult 104 noncult	80 cult 52 noncult	80 cult 50 noncult	78 cult
Impacts	Level of Significance After Mitigation	Comparison to Alternative 1				
CUM-3: Cumulative	SUI	=	>	<	=	>
OVC-3: Overconcentration	SUI	>	>	≤	≥	>
Biological Resource Impacts						
BIO-1: SS Species	LTS	=	>	=	=	≥
BIO-2: Riparian	LTS	=	>	=	=	≥
BIO-3: Wetlands	LTS	=	>	=	=	≥
BIO-4: Wildlife Movement	LTS	=	>	=	=	≥
BIO-5: Conflict with Policies	NI	=	=	=	=	=
BIO-6: Conflict with Yolo HCP/NCCP	NI	=	=	=	=	=
BIO-7: Reduce Species	LTS	=	>	=	=	≥
CUM-4: Cumulative	LTS	=	>	=	=	≥
OVC-4: Overconcentration	LTS	=	>	=	=	≥
Cultural Resource Impacts						
CULT-1: Historic Resources	LTS	=	>	=	=	≥
CULT-2: Arch Resources	LTS	=	>	=	=	≥
CULT-3: Human Remains	LTS	=	>	=	=	≥
CULT-4: TCR	LTS	=	>	=	=	≥
CUM-5: Cumulative	LTS	=	>	=	=	≥
OVC-5: Overconcentration	LTS	=	>	=	=	≥
Energy Impacts						
ENE-1: Use of Energy	LTS	>	>	>	>	≥
ENE-2: Conflict with Plans	LTS	>	>	>	>	≥
CUM-6: Cumulative	LTS	>	>	>	>	≥
OVC-6: Overconcentration	LTS	>	>	>	>	≥
Geology and Soils Impacts						
GEO-1: Soil Erosion	LTS	=	>	=	=	≥
GEO-2: Geologic Stability	LTS	=	>	=	=	≥
GEO-3: Paleo Resources	LTS	=	>	=	=	≥
GEO-4: Mineral Resources	LTS	=	>	=	=	≥
CUM-7: Cumulative	LTS	=	>	=	=	≥
OVC-7: Overconcentration	LTS	=	>	=	=	≥
Greenhouse Gas and Climate Change Impacts						
GHG-1: GHG Emissions	LTS	>	>	>	>	≥
CUM-8: Cumulative	LTS	>	>	>	>	≥
OVC-8: Overconcentration	LTS	>	>	>	>	≥

Table 5-1 CLUO Alternatives Impact Comparisons

Alternatives Evaluated	Alternative 1: Cultivation (CEQA Preferred Alternative)	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor Types Only	Alternative 5: All License Types with Moderate Limits with No Retail and Ag Zone Only	No Project–No CLUO Alternative
Assumed Cannabis Uses	78 cult	80 cult 52 noncult	160 cult 104 noncult	80 cult 52 noncult	80 cult 50 noncult	78 cult
Impacts	Level of Significance After Mitigation	Comparison to Alternative 1				
Hazards and Hazardous Materials Impacts						
HAZ-1: Create Hazard	LTS	=	>	=	=	≥
HAZ-2: Upset	LTS	=	>	=	=	≥
HAZ-3: Emit Hazards	LTS	=	>	=	=	≥
HAZ-4: Airport Hazards	LTS	=	>	=	=	≥
HAZ-5 Emergency Resp	LTS	=	>	=	=	≥
HAZ-6: Wildfire Hazards	LTS	=	>	=	=	≥
CUM-9: Cumulative	LTS	=	>	=	=	≥
OVC-9: Overconcentration	LTS	=	>	=	=	≥
Hydrology and Water Quality Impacts						
HYDRO-1: Water Quality	LTS	=	>	=	=	≥
HYDRO-2: Groundwater	LTS	=	>	=	=	≥
HYDRO-3: Drainage	LTS	=	>	=	=	≥
HYDRO-4: Water Q Plan	LTS	=	>	=	=	≥
CUM-10: Cumulative	LTS	=	>	=	=	≥
OVC-10: Overconcentration	LTS	=	>	=	=	≥
Land Use and Planning Impacts						
LU-1: Community Division	LTS	=	=	=	=	≤
LU-2: Conflict with Plans	LTS	=	=	=	=	≤
LU-3: Population Growth	LTS	=	=	=	=	≤
CUM-11: Cumulative	LTS	=	=	=	=	≤
OVC-11: Overconcentration	LTS	=	=	=	=	≤
Noise Impacts						
NOI-1: Construction Noise	LTS	=	>	=	=	≥
NOI-2: Non-Trans Noise	LTS	=	>	=	=	≥
NOI-3: Traffic Noise	LTS	=	>	=	=	≥
CUM-12: Cumulative	LTS	=	>	=	=	≥
OVC-12: Overconcentration	LTS	=	>	=	=	≥
Public Services Impacts						
PS-1: Fire Protection	LTS	=	>	=	=	≥
PS-2: Law Enforcement	LTS	=	>	=	=	≥
CUM-13: Cumulative	LTS	=	>	=	=	≥
OVC-13: Overconcentration	LTS	=	>	=	=	≥
Transportation and Circulation Impacts						
TRANS-1: Plan Conflict	LTS	=	>	=	=	≥
TRANS-2: Changes in VMT	LTS	=	>	=	=	≥

Table 5-1 CLUO Alternatives Impact Comparisons

Alternatives Evaluated	Alternative 1: Cultivation (CEQA Preferred Alternative)	Alternative 2: All License Types with Moderate Limits	Alternative 3: All License Types with High Limits	Alternative 4: Mixed-Light/Indoor Types Only	Alternative 5: All License Types with Moderate Limits with No Retail and Ag Zone Only	No Project–No CLUO Alternative
Assumed Cannabis Uses	78 cult	80 cult 52 noncult	160 cult 104 noncult	80 cult 52 noncult	80 cult 50 noncult	78 cult
Impacts	Level of Significance After Mitigation	Comparison to Alternative 1				
CUM-14: Cumulative	LTS	=	>	=	=	≥
OVC-14: Overconcentration	LTS	=	>	=	=	≥
Utilities and Service Systems Impacts						
UTIL-1: Wastewater	LTS	=	>	=	=	≥
UTIL-2: Water Service	LTS	=	>	=	=	≥
UTIL-3: Solid Waste Service	LTS	=	>	=	=	≥
CUM-15: Cumulative	LTS	=	>	=	=	≥
OVC-15: Overconcentration	LTS	=	>	=	=	≥

Notes:

< The alternative would have a lesser impact than Alternative 1

> The alternative would have a greater impact than Alternative 1

= The alternative would have a similar impact to Alternative 1

≤ The alternative would have a lesser or similar impact to Alternative 1

≥ The alternative would have a greater or similar impact to Alternative 1

cult=cultivation; noncult=noncultivation; LTS=less than significant; NI=no impact; SUI=significant and unavoidable

Source: Prepared by Ascent Environmental in 2019

AESTHETICS

As identified in Section 3.1, "Aesthetics," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," impacts to scenic viewsheds, state scenic highways, and lighting and glare would be less than significant for all alternatives. Aesthetic impacts related to visual character were conservatively identified as significant and unavoidable for all alternatives under project, cumulative, and overconcentration conditions in recognition that cannabis activities have distinct visual characteristics that may affect the aesthetic quality of the surrounding community. Because Alternative 1 would not result in an expansion of cannabis uses in the County and would include implementation of the CLUO, it would be environmentally superior to the other alternatives. with respect to aesthetic impacts. Alternatives 2, 3, 4, and 5 would allow an increased number of cannabis uses including new noncultivation uses (nurseries, processing facilities, manufacturing, testing, distribution, retail, and microbusiness). Compliance with CLUO performance standards would result in relatively similar impact conditions for Alternatives 1, 2, 4, and 5. Alternative 3 would be the least environmentally superior alternative due to the increased number of assumed cannabis uses (264 uses).

AGRICULTURAL RESOURCES

No agricultural resource impacts were identified in Section 3.2, "Agricultural Resources," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives. Commercial cannabis uses were determined to be agricultural uses and would not result in the loss of farmland or otherwise conflict with existing agricultural uses in the County. Alternative 1 would retain the existing 78 cultivation sites that are currently allowed under Yolo County Code and would not allow any new cultivation

or noncultivation cannabis uses. Alternatives 2, 3, 4, and 5 would introduce new cultivation and noncultivation cannabis uses (nurseries, processing facilities, manufacturing, testing, distribution, retail, and microbusiness) into the County. As noted in the discussions of the impacts, these noncultivation uses are similar in character to other agricultural land uses, such as agricultural sales, wineries, breweries, and processing (e.g., olive oil production and canneries). Thus, alternatives 1 through 5 would all include implementation of the CLUO and would be similar in regard to agricultural resource impacts.

AIR QUALITY AND ODORS

No significant air quality impacts were identified in Section 3.3, "Air Quality and Odors," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives because they would retain most of the existing cultivation sites and would be required to comply with Sections 8-2.1408(K), 8-2.1408(L), 8-2.1408(O), 8-2.1408(T), and 8-2.1408(V) of the CLUO, as well as Yolo-Solano Air Quality Management District best management practices. Air quality impacts would be similar for Alternatives 1, 2, 3, 4, and 5, with Alternative 1 likely the environmentally superior alternative because it assumes the CLUP controls with the least number of new cannabis uses.

As identified in Section 3.3, "Air Quality and Odors," Section 4.1, "Cumulative Impacts," and Section 4.2, "Overconcentration," all of the CLUO alternatives would result in significant and unavoidable odor impacts even with application of zoning, buffer requirements, and odor control requirements of CLUO Sections 8-2.1408(CC) and 8-2.1408(DD). Alternative 1 would not result in an expansion of cannabis uses in the County that could generate odors. Alternatives 2 and 5 would have similar odor impacts given the similar extent of cannabis uses. Alternative 3 would be the least environmentally superior alternative due to the extent of assumed cannabis uses that could create odor impacts. Alternative 4 would likely be the environmentally superior alternative for odor impacts because all cannabis uses would be in buildings or greenhouses that would better control odors through carbon filters, scrubbers, or other technology.

BIOLOGICAL RESOURCES

Significant but mitigable biological resource impacts were identified in Section 3.4, "Biological Resources," for all alternatives. These impacts would be mitigated for all alternatives through compliance with CLUO performance standards, State Water Resources Control Board Order WQ 2019-0001-DWQ, and implementation of mitigation identified in Section 3.4. No significant biological resource impacts were identified in Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration." As identified in Table 2-4 and in the discussion of Impact BIO-1, Alternative 3 would disturb the most land area and therefore could result in the largest extent of potential biological resource impacts; the land disturbance acreages and associated impacts under Alternatives 2, 4, and 5 would be similar for the three alternatives. Alternative 1 land disturbance would be limited to construction related to the relocation of nine existing operations to comply with the CLUO, making it environmentally superior overall with regard to impacts to biological resources.

CULTURAL RESOURCES

No significant archaeological, historical, or tribal cultural resource impacts were identified in Section 3.5, "Cultural Resources," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards. As identified in Table 2-4, Alternative 3 would disturb the most land area and therefore could result in the largest extent of potential archaeological, historical, and tribal resource impacts; the land disturbance acreages and associated impacts under Alternatives 2, 4, and 5 would be similar for the three alternatives. Alternative 1 land disturbance would be limited to modification of existing cultivation sites that may be required to comply with the CLUO, making it environmentally superior overall with regard to impacts to cultural resources.

ENERGY

No significant impacts related to energy use were identified in Section 3.6, "Energy," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards. Tables 4-12, 4-13, 4-14, 4-15, and 4-16 provide total energy use for each alternative. Alternative 1 would use less energy for construction activities compared to Alternatives 2, 3, 4 and 5, since the only construction would be associated with the nine assumed relocations due to CLUO zoning standards. In addition, the energy use associated with the operations of Alternative 1 would be less than the other alternatives. Given this, Alternative 1 would likely be the environmentally superior alternative associated with energy use.

GEOLOGY AND SOILS

No significant impacts related to geology and soils were identified in Section 3.7, "Geology and Soils," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state regulations. As identified in Table 2-4, Alternative 3 would disturb the most land area and could result in soil disturbance and potential paleontological resource impacts; the land disturbance acreages and associated impacts under Alternatives 2, 4, and 5 would be similar for the three alternatives. Alternative 1 land disturbance would be limited to relocation of nine operations to comply with the CLUO, making it the environmentally superior alternative with regard to geology and soils impacts.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified in Section 3.8, "Greenhouse Gas Emissions and Climate Change," and Section 4.1 "Cumulative Impacts," all of the alternatives would result in significant but mitigatable impacts from increases in greenhouse gas (GHG) emissions. No significant GHG impacts were identified in Section 4.2, "Overconcentration." Alternative 1 would produce less GHG emissions during construction compared to Alternatives 2, 3, 4 and 5, since the only construction activities would be the nine assumed relocations due to CLUO zoning standards. There would be no new cannabis use construction associated with Alternative 1. In addition, the GHG emissions associated with the operations of Alternative 1 would be less than the other alternatives. Given this, Alternative 1 would likely be the environmentally superior alternative associated with GHG emissions and climate change.

HAZARDS AND HAZARDOUS MATERIALS

No significant impacts related to hazards were identified in Section 3.9, "Hazards and Hazardous Materials," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state standards. Implementation of CLUO Sections 8-2.1408(A), 8-2.1408(W), 8-2.1408(CC), and 8-2.1408(OO), which consist of standards regarding the use of pesticides and the handling of hazardous materials, and Sections 8-2.1408(F), 8-2.1408(K), and 8-2.1408(Q), regarding fire protection and emergency access that address wildland fire hazards, would result in similar hazard impacts for alternatives 1, 2, 4, and 5, with Alternative 1 likely the environmentally superior alternative because it assumes the CLUP controls with the least number of new cannabis uses. Alternative 3 would be the least environmentally superior alternative due to the increased number of assumed cannabis uses (264 uses).

HYDROLOGY AND WATER QUALITY

One significant impact related to compliance with water quality plans was identified in Section 3.10, "Hydrology and Water Quality," for all alternatives. All alternatives would result in significant but mitigable impacts from conflicts with a water quality control plan. Mitigation for all alternatives would be achieved through compliance with CLUO performance standards, including modifications identified in mitigation measures. No significant hydrology impacts were identified in Section 4.1 "Cumulative Impacts," and

Section 4.2, "Overconcentration." As identified in Table 2-4, Alternative 3 would disturb the most land area and could the largest extent of potential water resource and groundwater impacts; the land disturbance acreages and associated water resource and groundwater impacts under Alternatives 2, 4, and 5 would be similar for the three alternatives. Alternative 1 would likely be environmentally superior with regard to hydrology and water quality because it assumes implementation of the CLUP regulations and the least number of new cannabis uses.

LAND USE AND PLANNING

No land use or population/housing impacts were identified in Section 3.11, "Land Use and Planning," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives. Implementation of the CLUO would result in refinements to the Yolo County General Plan and Yolo County Code to acknowledge cannabis as a legal commercial crop and would not conflict with County policies and regulations related to the promotion and protection of agricultural land uses. As noted in the discussion of Impact 3.11-2, Alternative 3 would generate the highest full-time employment at 2,819 employees. Alternative 4 would generate 2,815 full-time employees, while Alternative 2 would generate 1,145 employees and Alternative 5 would generate 1,382 employees. Alternative 1 would be the lowest at 683 full-time employees, making it the environmentally superior alternative with respect to land use and planning.

NOISE

Significant but mitigable construction noise impacts were identified in Section 3.12, "Noise," for all alternatives through mitigation that would limit construction hours and noise generation. No significant traffic and stationary noise impacts would occur under any of the alternatives. No significant noise impacts were identified in Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration." As noted in the discussion of NOI-3, Alternative 1 would not result in significant traffic noise increases, thus making it environmentally superior to the other alternatives. Alternatives 2, 4, and 5 would result in traffic noise increases that would not be audible; thus, the impact would be similar to that of Alternative 1. Alternative 3 would generate a potentially audible increase on one roadway segment.

PUBLIC SERVICES

No significant public service impacts were identified in Section 3.13, "Public Services," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state regulations. Alternative 1 would retain existing cultivation sites only and would generate no new public service demand, thus making it environmentally superior as compared to the other alternatives. Alternative 3 would result in the largest number of new cannabis uses in the County and could create the greatest demand for additional public services; the extent of new cannabis uses and associated increases in public service demand under Alternatives 2, 4, and 5 would be similar for the three alternatives.

TRANSPORTATION AND CIRCULATION

No significant impacts related to traffic operations, consistency with County General Plan transportation policies, or VMT were identified in Section 3.14, "Transportation and Circulation," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives. Traffic from assumed cannabis uses under Alternatives 1, 2, and 4 would result in similar traffic operation conditions, with Alternative 1 environmentally superior overall. Projected traffic operations impacts under Alternative 3 for existing and future traffic scenarios would likely be greater as compared to the other alternatives (see Tables 6 and 7 in Appendix G). Consistency with general plan transportation policies would be similar for all alternatives.

UTILITIES AND SERVICE SYSTEMS

No significant utility service impacts were identified in Section 3.15, "Utilities and Service Systems," Section 4.1 "Cumulative Impacts," and Section 4.2, "Overconcentration," for any of the alternatives through compliance with CLUO performance standards and state regulations. Alternative 1 would retain existing cultivation sites only and would generate no new utility demand thus making it environmentally superior. Alternative 3 would result in the largest number of new cannabis uses in the County and could create the greatest demand for additional solid waste service. The number of new cannabis uses and associated increases in solid waste service under Alternatives 2, 4, and 5 would be similar for the three alternatives.

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6 OTHER CEQA-MANDATED SECTIONS

6.1 GROWTH INDUCEMENT

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing the growth-inducing impacts of a project:

> 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. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Project

The California Department of Food and Agriculture estimated that cannabis production in the state in 2016 was approximately 13.5 million pounds, with no anticipated increases in overall production from implementation of the Medical Cannabis Regulation and Safety Act and Adult Use of Marijuana Act by 2018 (CDFA 2017). Estimates for state cannabis consumption in 2018 under these acts range from 1.4 million pounds (Truth Enterprises 2016) to 2.5 million pounds, which is far below the state's current cannabis production capability. Thus, substantial growth in cannabis cultivation operation statewide or in the County is not expected to occur.

Foster Population Growth and Construction of Housing

Implementation of the CLUO is intended to regulate all cannabis activities, including personal use, commercial cultivation, and noncultivation uses (nurseries, processing, manufacturing, testing, distribution, retail, and microbusinesses), in the unincorporated area. Table 2-4 identifies the anticipated extent of development and employment associated with commercial cultivation and noncultivation uses under the five CLUO alternatives. Depending on the alternative, the number of new permanent full-time equivalent employees generated with implementation of the CLUO would range from none (Alternative 1) to 1,399 (Alternative 3). Current vacancy rates and the extent of new dwelling units anticipated by 2036 indicate that there would be adequate housing opportunities in the region to accommodate employment generated under the CLUO and that the project would not trigger the cumulative need to develop new housing beyond growth projections. As discussed under Impact LU-3, new cultivation and noncultivation sites would be spread countywide, and operational employees can be assumed to come from the surrounding areas with some employees needing to move into the area, which would result in population growth in the County. Yolo, Sacramento, and Solano Counties combined have approximately 63,000 existing unoccupied dwelling units, and housing vacancy rates have increased in Yolo County from 4.3 percent in 2017 to 5.2 percent in 2019. Several local jurisdictions in the region have reasonably foreseeable residential development communities. For example, West Sacramento has the Yarbrough, Liberty Specific Plan, and River Park developments, which would provide up to 7,200 new residential units combined and are in the entitlement process. Woodland has approved the Country Oaks subdivision, and the previously approved Spring Lakes Specific Plan is being built out. Other jurisdictions, such as the County and City of Winters, are incorporating suggestions from the Sacramento Area Council of Governments Housing Policy Tool Kit to address the availability of housing, such as the allowance for premanufactured buildings and accessory dwelling units in the zoning code and the adoption of regulations for support of farmworker housing and transitional housing. Thus, adequate housing opportunities in the region are considered to be available to accommodate the employment generated. The potential for a significant adverse impact is less than significant.

Eliminate Obstacles to Population Growth

Additionally, the project would not remove barriers to population growth. No new or expanded (beyond what is currently planned) public infrastructure facilities would be installed to support implementation of the CLUO, because cannabis uses would operate similar to the way that existing agricultural land uses in the County operate. No new roadway improvements would be required to serve cannabis uses. It is expected that most cannabis sites would use on-site wastewater treatment systems and wells for water supply. Therefore, the project would not contribute to substantial population growth or be considered growth inducing. The potential for a significant adverse impact is less than significant.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project level impacts) and Chapter 4, "Cumulative Impacts and Overconcentration," of this Draft EIR, after implementation of the CLUO performance standards and identified mitigation measures, implementation of the CLUO would result in the following significant and avoidable impacts:

- Impact AES-3: Substantially Degrade the Existing Visual Character or Quality of the Project Area (all alternatives)
- Impact AQ-4: Expose a Substantial Number of People to Adverse Odors (all alternatives)
- Impact CUM-1: Cumulative Visual Character Impacts (all alternatives)
- Impact CUM-3: Cumulative Odor Impacts (all alternatives)
- Impact OVC-1: Visual Character Impacts from Overconcentration of Cannabis Uses (all alternatives)
- Impact OVC-3: Odor Impacts from Overconcentration of Cannabis Uses (all alternatives)

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines require a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, State CEQA Guidelines Section 15126.2(d) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

6.3.1 Use of Nonrenewable Resources

The project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including:

- construction materials, including such resources as soil, rocks, wood, concrete, glass, and steel;
- water supply for project construction and operation; and
- energy expended in the form of electricity, natural gas, diesel fuel, gasoline, and oil for equipment and
- transportation vehicles that would be needed for project construction and operation.

The use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region.

Impact HYDRO-1 identifies that groundwater demand per acre of cultivation area and noncultivation uses for all the CLUO alternatives would be below the County's typical agricultural per acre water demands that are assumed to be replaced by cannabis uses, which range from 2.35 to 3.05 afy per acre of cropland (see Table 3.10-3). Permittees would be required to demonstrate adequate water supply under CLUO Section 8-2.1408(VV) and any on-site improvements that would necessary for service (e.g., groundwater well and storage tank) under CLUO Section 8-2.1408(OO) in order to obtain a Cannabis Use Permit. Thus, water supply impacts would be **less than significant** for all alternatives.

As discussed in Impact ENE-1, construction and operation of commercial cannabis cultivation and noncultivation sites associated with adoption and implementation of the proposed CLUO, including subsequent Cannabis Use Permits pursuant to the adopted CLUO, would result in the consumption of fuel (gasoline and diesel), electricity, and natural gas. The energy needs for construction of new and relocated commercial cannabis cultivation and noncultivation sites would be temporary and would not require additional capacity or increase peak or base period demand for electricity or other forms of energy. The CLUO would require all cultivation and noncultivation sites to derive 50 percent of their energy from renewable sources, and CCR Sections 8203, 8205, and 8206 include energy efficiency requirements that are more stringent than standard requirements in the California Energy Code. Further, CCR Sections 8203 and 8205 require all cannabis cultivation sites seeking relicensing after 2022 to supply their total electricity from a zero net energy renewable source. Energy consumption associated with all of the alternatives under the CLUO would not result in wasteful, inefficient, or unnecessary consumption of energy. Thus, the impact would be **less than significant** for all alternatives. The reader is referred to Section 3.6, "Energy," for an analysis of the CLUO's impacts on energy use under each of the five alternatives.

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