



Draft Subsequent Mitigated Negative Declaration

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

Publication Date: 2/16//2021
Public Review Period: 2/16/2021 – 3/18/2021
State Clearinghouse Number: 2021XXXXXXXX
Permit Sonoma File Number: ORD20-0005
Prepared by: Scott Orr at
Phone: (707) 565-1900

Pursuant to Section 15071 of the State CEQA Guidelines, this proposed Subsequent Mitigated Negative Declaration and the attached Initial Study constitute the environmental review conducted by Sonoma County as lead agency for the proposed project described below:

Project Name: Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment

Project Applicant/Operator: Sonoma County

Project Location/Address: The Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment would apply to the Land Intensive Agriculture (LIA), Land Extensive Agriculture (LEA), Diverse Agriculture (DA), and Resources and Rural Development (RRD) zones within the unincorporated area of Sonoma County, outside the Coastal Zone.

APN: Various

General Plan Land Use Designation: Agriculture; Resources & Rural Development

Zoning Designation: Land Intensive Agriculture (LIA), Land Extensive Agriculture (LEA), Diverse Agriculture (DA), and Resources and Rural Development (RRD)

Decision Making Body: Sonoma County Board of Supervisors

Appeal Body: N/A

Project Description: See Item III, below

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that “Less than Significant with Mitigation” as indicated in the attached Initial Study and in the summary table below.

Table 1. Summary of Topic Areas

Topic Area	Abbreviation *	Yes	No
Aesthetics	VIS	Yes	
Agricultural & Forest Resources	AG		No
Air Quality	AIR	Yes	
Biological Resources	BIO	Yes	
Cultural Resources	CUL		No
Energy	ENERGY	Yes	
Geology and Soils	GEO	Yes	
Greenhouse Gas Emission	GHG		No
Hazards and Hazardous Materials	HAZ	Yes	
Hydrology and Water Quality	HYDRO		No
Land Use and Planning	LU		No
Mineral Resources	MIN		No
Noise	NOISE	Yes	
Population and Housing	POP		No
Public Services	PS		No
Recreation	REC		No
Transportation	TRANS	Yes	
Tribal Cultural Resources	TCR		No
Utility and Service Systems	UTL		No
Wildfire	WF	Yes	
Mandatory Findings of Significance		Yes	

RESPONSIBLE AND TRUSTEE AGENCIES

There are no responsible or trustee agencies as the Sonoma County Board of Supervisors only has approval authority over the updated Ordinance and General Plan Amendment. However, approval from the agencies listed below may be required to construct and/or operate projects proposed under the updated Ordinance and General Plan Amendment.

Table 2. Agency Activities and Authorizations

Agency	Activity	Authorization
U. S. Army Corps of Engineers	Wetland dredge or fill	Clean Water Act, Section 404
U. S. Army Corps of Engineers	Work in navigable waters	Rivers and Harbors Act, Section 106
Regional Water Quality Control	Discharge or potential discharge	California Clean Water Act

Board (North Coast or San Francisco Bay)	to waters of the state	(Porter Cologne) – Waste Discharge requirements, general permit, or waiver
Regional Water Quality Control Board (North Coast or San Francisco Bay)	Wetland dredge or fill	Clean Water Act, Section 401
State Water Resources Control Board	Generating stormwater (construction, industrial, or municipal)	National Pollutant Discharge Elimination System (NPDES) requires submittal of NOI
California Department of Fish and Wildlife	Lake or streambed alteration	Fish and Game Code, Section 160 2
California Department of Fish and Wildlife	Incidental take permit for state-listed species	California Endangered Species Act ; Fish and Game Code, Section 2081
California Department of Food and Agriculture (CalCannabis)	Cannabis Cultivation	Cannabis Cultivation Standards and Licensing
California Bureau of Cannabis Control	Cannabis Events, Distribution, and Retailer	Cannabis Events, Distribution, and Retail Standards and Licensing
California Department of Public Health	Cannabis Cultivation, Manufacturing, Distribution, and Retailing	Cannabis Cultivation, Manufacturing, Distribution, and Retailing Standards and Licensing
Bay Area Air Quality Management District (BAAQMD)	Stationary air emissions	BAAQMD Rules and Regulations (Regulation 2, Rule 1 – General Requirements; Regulation 2, Rule 2 – New Source Review; Regulation 9 – Rule 8 – NOx and CO from Stationary Internal Combustion Engines; and other BAAQMD administered Statewide Air Toxics Control Measures (ATCM) for stationary diesel engines
Northern Sonoma County Air Pollution Control District (NSCAPCD)	Stationary air emissions	
U. S. Fish and Wildlife Service (FWS) and or National Marine Fisheries Service (NMFS)	Incidental take permit for listed plant and animal species	Endangered Species Act
Caltrans Encroachment	Activities within a state highway	
State Lands Commission	Activities in State Lands Commission jurisdiction	Lease required?
Native American Heritage Commission		
State Historic Preservation Office		

ENVIRONMENTAL FINDING:

Based on the evaluation in the attached Expanded Initial Study, I find that the project described above will not have a significant adverse impact on the environment, provided that the mitigation measures identified in the Initial Study are included as conditions of approval for the project and a Mitigated Negative Declaration is proposed. The lead agency has agreed in writing to incorporate identified mitigation measures into the project.



Feb 11, 2021

Prepared by: Scott Orr

Date

Expanded Draft Subsequent Initial Study

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(707) 565-1900 FAX (707) 565-1103

I. INTRODUCTION:

On December 20, 2016, the Board of Supervisors adopted the Medical Cannabis Land Use Ordinance to allow the full supply chain of medical cannabis businesses, including cultivation, manufacturing, testing, and distribution, and making amendments to the standards for dispensaries. An Initial Study-Negative Declaration was prepared as the CEQA document for the 2016 Ordinance. On October 16, 2018, the Board of Supervisors adopted amendments to the Medical Cannabis Land Use Ordinance to allow adult use cannabis in unincorporated areas of Sonoma County for the full cannabis supply chain, to protect and enhance neighborhood compatibility, to add new definitions, and to make the County regulations consistent with State law and regulations. The amended Ordinance increased the minimum parcel size for cannabis cultivation in agricultural and resource zones, added a school setback in agricultural and resource zones for indoor cultivation, allowed reduction in the parks setback with a use permit, extended certain permit terms, allowed additional propagation area, and allowed centralized processing in agricultural and industrial zones. These amendments were determined to be statutorily and categorically exempt from CEQA.

Sonoma County is now proposing further updates to the Cannabis Land Use Ordinance in response to experience gained through implementation of the current Ordinance and updates in State law relative to cannabis cultivation. In addition, an objective of the Ordinance update is to provide a streamlined ministerial review and approval process for cannabis cultivation activities that comply with planning and environmental protection measures in the Ordinance. The proposed Ordinance updates are evaluated in this Subsequent Initial Study-Mitigated Negative Declaration, which analyzes the proposed updates relative to the original Ordinance.

The Sonoma County Cannabis Land Use Ordinance Update would include the following key updates for cannabis cultivation operations in the Land Intensive Agriculture (LIA), Land Extensive Agriculture (LEA), Diverse Agriculture (DA), and Resources and Rural Development (RRD) Zoning Districts throughout unincorporated areas of Sonoma County, outside of the Coastal Zone through the adoption of the proposed new Chapter 38 to the County Code and associated technical amendments to Chapter 26:

- Adopt amendments to change more cultivation permitting and design review from discretionary to ministerial approval upon compliance with certain standards in the updated Ordinance;
- Commercial cannabis cultivation permits shall expire five years from the effective date of the permit and the permittee could apply for a permit renewal before the expiration date;
- Cannabis cultivation is not permitted on a single legal parcel with split zoning, unless all zoning designations for the split zoned parcel are listed in subsection B. of Section 38.12.020 of the revised ordinance;
- Remove operator qualifications for cultivation activity;
- Remove cannabis-specific restrictions on tours and promotional events.
- Expand the cannabis cultivation area allowed per parcel from 1 acre to 10 percent of the parcel;
- Distinguish between different types of “mixed-light cultivation”, such as between light deprivation and greenhouse cultivation;
- Revise measurement technique for sensitive use setbacks (i.e.: parks and schools) from parcel line of sensitive use to land use activity as shown on the approved project site plan such as nearest outdoor canopy or hoop house structure instead of parcel line to parcel line in the current Ordinance;
- Remove one person cap for cultivation use (currently 1-acre per person or operator);

- Allow all cultivators to transport their own product to other permittees/licenseses;
- Revise setback and fencing requirements for greenhouses and use Best Management Practices to ensure design compatibility and odor control standards;
- Revise screening requirements for fencing if not visible from the public right-of-way;
- Revise lighting requirements at night unless needed for security purposes to reduce potential wildlife and night sky impacts;
- Revise cultural resources standard to accommodate ministerial permitting and requirement to submit a cultural resources report with the application;
- Maintains that cannabis cultivation and related activities, involving ground disturbance, shall be subject to design standards and referral to the Northwest Information Center and local tribes and a use permit will be required if mitigation is recommended by the cultural resource survey or a local tribe;
- Allow cannabis cultivation area to rotate around a parcel as shown on an approved site plan;
- Allow propagation incidental to cultivation;
- Revise limitations on indoor and greenhouse cultivation
- Limiting all new structures to a percentage of lot building coverage or 43,560 square feet;
- Remove square foot limitations on mixed light and indoor cultivation utilizing existing structures; and
- Align water use and electrical power requirements with other agricultural land uses.

The establishment of expanded ministerial permitting in Agricultural and Resource zoning designations (LIA, LEA, DA, and RRD) within the unincorporated area of Sonoma County, through the adoption of the proposed new chapter 38 to the county code, also requires minor and technical revisions to existing county code provisions governing cannabis cultivation in chapter 26. Such revisions and technical corrections will remove unnecessary, conflicting, or duplicative provisions, and will otherwise harmonize existing chapter 26 with the proposed new chapter 38, thereby clarifying the relationship between these two chapters regarding local land use regulation of cannabis cultivation and supply chain business activity.

In addition, Sonoma County would amend the Sonoma County General Plan 2020 to redefine agricultural land use as inclusive of cannabis cultivation.

A referral letter was sent to the appropriate local, state, and federal agencies and interest groups who may wish to comment on the project.

This report is the Initial Study required by the California Environmental Quality Act (CEQA). The report was prepared by Scott Orr, Planning Division Manager with the Sonoma County Permit and Resource Management Department, Project Review Division, with assistance from Rincon Consultants, Inc. Information on the project was provided by Sonoma County staff (Permit Sonoma and Agricultural Commissioner's Office). Reports, documents, maps and studies referred to in this document are available for review at the Permit and Resource Management Department (Permit Sonoma) or on the County's website at: <http://www.sonoma-county.org/prmd/divpages/projrediv.htm>

Please contact McCall Miller, Department Analyst, at (707) 565-2431, for more information.

II. EXISTING SONOMA COUNTY CANNABIS LAND USE ORDINANCE

On December 20, 2016, the Sonoma County Board of Supervisors adopted a series of ordinances to establish a comprehensive local program to permit and regulate the complete supply chain of medical cannabis uses, including the Medical Cannabis Land Use Ordinance, which was codified in Chapter 26 of the Sonoma County Code, Sections 26-88-250 through 26-88-258. Senate Bill 94 ("SB 94"), signed into law on June 27, 2017, repealed the Medical Cannabis Regulation and Safety Act ("MCRSA") and incorporated certain provisions of MCRSA into the provisions of the Adult Use of Marijuana Act ("AUMA") to create one regulatory framework termed the Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA"). These new regulations allowed both medical and adult-use cannabis and cannabis

products to be manufactured, processed, distributed, and sold in the same facilities as codified in the Sonoma County Code at this time.

A summary of the types of permits allowed for cultivation facilities in the County are shown on the following table:

**Table 3. Current Cannabis Size Limitations and Permitting
(excerpt from Cannabis Land Use Table adopted October 16, 2018)**

Land Use – Cannabis Uses	Maximum Cultivation Area	Minimum Parcel Size	Land Intensive Agriculture - LIA	Land Extensive Agriculture - LEA	Diverse Agriculture - DA	Resources and Rural Development - RRD	Timber Preserve - TP
Commercial Cannabis Uses							
Outdoor Cultivation							
Cottage	25 Plants	10 ac	ZP	ZP	ZP	MUP	-
Specialty Outdoor	5,000 or 50 plants	10 ac	CUP	ZP	ZP	CUP	-
Small Outdoor	5,001 – 10,000	10 ac	CUP	ZP	ZP	CUP	-
Medium Outdoor	10,000 – 43,560	10 ac	CUP	ZP	ZP	CUP	-
Nursery Outdoor	Limited as expressed above		CUP	CUP	CUP	CUP	-
Indoor Cultivation							
Cottage	500	10 ac	ZP	ZP	ZP	MUP	-
Specialty Indoor	501-5,000	10 ac	CUP	CUP	CUP	CUP	-
Small Indoor	5,001 – 10,000	10 ac	-	-	-	-	-
Medium Indoor	10,001 – 22,000	10 ac	-	-	-	-	-
Nursery Indoor	Limited as expressed above		CUP	CUP	CUP	CUP	-
Mixed Light Cultivation							
Cottage	2,500	10 ac	ZP	ZP	ZP	MUP	-
Specialty Mixed Light	2,501 – 5,000	10 ac	CUP	CUP	CUP	CUP	-
Small Mixed Light	5,001 – 10,000	10 ac	CUP	CUP	CUP	CUP	-
Medium Mixed Light	10,001 - 22,000	10 ac	-	-	-	-	-
Nursery Mixed Light	Limited as expressed above		CUP	CUP	CUP	CUP	-
Centralized Processing		10 ac	CUP	CUP	CUP	-	-
Distributor-Transport Only		10 ac	MUP	MUP	MUP	MUP	-

Indoor cultivation, mixed light cultivation and microbusinesses (retail, cultivation, distribution of limited size) are also currently allowed in the Industrial Park (MP), Limited Urban Industrial (M1), Heavy Industrial (M2), and Limited Rural Industrial (M3) with approval of a Zoning Permit for Cottage Indoor Cultivation and a Minor Use Permit (MUP) for all other uses.

In addition to setbacks established for the base zoning district, outdoor and mixed-light cannabis cultivation uses are also subject to property setbacks of 100 feet from property lines and 300 feet from residences structures on adjacent properties. A 1,000 foot setback is required from a school providing education to K-12 grades, a public park, Class 1 Bikeway, childcare centers, and drug/alcohol treatment facilities for outdoor and mixed-light cannabis cultivation uses.

Term limits for cannabis permits are currently:

- Zoning Permit – 1 year from the date of permit approval; and
- Use Permits – up to 5 years from the date of issuance of the Use Permit Certificate.

The current Ordinance requires the applicant to maintain an “operator” at all times that meets the following qualifications:

- Must be 21 years of age;
- Subject to background search;
- Must have the authority to legally bind the person applying for and or operating pursuant to a permit; and
- Must meet the definition of a cannabis business owner.

III. PROJECT DESCRIPTION – PROPOSED SONOMA COUNTY CANNABIS LAND USE ORDINANCE UPDATE

The following is an itemized description of the proposed updates to Sonoma County’s Cannabis Land Use Ordinance for approval of cannabis cultivation uses in the Land Intensive Agriculture (LIA), Land Extensive Agriculture (LEA), Diverse Agriculture (DA), and Resources and Rural Development (RRD) Zone Districts within the unincorporated areas of the County outside the Coastal Zone. The text of the proposed Ordinance update is included as Appendix A.

Articles 06 and 10. Permit Application and Permit Implementation, Time Limits and Extensions

Ministerial Permit Allowance

The current Cannabis Land Use Ordinance allows commercial cannabis cultivation, including outdoor, indoor, and mixed light cultivation and associated drying, curing, grading, and trimming facilities. Zoning permits for outdoor cultivation may be issued by the Sonoma County Department of Agriculture/Weights, and Measures (Agricultural Commissioner). Zoning permits and use permits for all other cultivation activities are issued by the Sonoma County Permit and Resource Management Department (Permit Sonoma). The application form for a cannabis cultivation ministerial permit would be modified to require specific cultivation uses operator and owner information. A background search of the operator would be performed prior to permit approval to ensure that the operator requirements in the Ordinance are met.

The proposed Cannabis Land Use Ordinance update would allow commercial cannabis cultivation uses to be approved as a ministerial permit that expires five years from the date of issuance (no public hearing required) by the Agricultural Commissioner if specific standards described in the sections below are met. The permittee may apply to renew the permit prior to the five year expiration date. Applicants for cultivation operations that do not meet these standards would be required to obtain a conditional use permit to be processed by Permit Sonoma, subject to public notice and a public hearing.

Article 12. – Standards for Commercial Cannabis Cultivation

Parcel Requirements

The current Cannabis Land Use Ordinance requires that cannabis cultivation occur on a legal parcel in the zoning districts listed above in the introduction to this section. The updated ordinance requires that a cannabis cultivation site must be located on a single legal parcel and cannabis cultivation is not permitted on a single legal parcel with split zoning unless all zoning designations for the split zoned parcel are in the zoning districts listed above.

Cultivation Area Requirements

The existing Cannabis Ordinance requires a 10-acre minimum parcel size for all commercial cannabis operations in the Land Use Intensive (LIA), Land Use Extensive (LEA), Diverse Agriculture (DA) and Resources and Rural Development (RRD) zones. Multiple permits may be issued for multi-tenant operations on a single parcel provided that the aggregate cultivation area does not exceed the maximum area allowed for the cultivation type as shown in Table 1A-D in the County Code and Table 3 in the Existing Conditions section above.

Under the proposed Ordinance updates, cannabis cultivation would continue to be allowed in the LIA, LEA, DA and RRD zones on parcels of at least 10 acres. Cannabis cultivation would continue to be prohibited on a parcel listed as a hazardous materials site.

Limitations on Plant Canopy, Operations, and Structures

Currently, the square footage of cultivation areas are not allowed to exceed the maximum size thresholds as defined in Table 3 above, which is one acre of outdoor cultivation, 5,000 square feet of indoor cultivation, and 10,000 square feet of mixed-light cultivation. The total combined cultivation area per parcel cannot exceed one acre. The overall structure sizes to accommodate the allowed cultivation areas are not limited. Accessory structures for processing, employee uses, storage, etc. are also not limited.

The existing ordinance limits cannabis processing to no more than nine (9) centralized cannabis processing facilities in Agricultural Zones within the unincorporated County at any one time. This limitation has been eliminated in the proposed Ordinance.

The proposed Ordinance update would limit plant canopy cover for outdoor cannabis cultivation and hoop houses to a maximum of 10 percent of a parcel. Plant canopy for indoor and mixed light cultivation types in existing structures would not be limited in area but must be in a structure that was legally constructed prior to January 1, 2021. A new permanent structure is defined as a structure legally constructed on or after January 1, 2021. The building coverage (footprint) for all new structures on parcels up to 20 acres cannot exceed 43,560 square feet (one acre). New structures on parcels greater than 20 acres in size cannot exceed 43,560 square feet or 50 percent of the maximum lot coverage prescribed for the base zone.

Setbacks

The current Cannabis Ordinance requires that outdoor cultivation not be located in a front yard and screened from public view. Outdoor cultivation is also prohibited from being visible from a public right-of-way. For outdoor and mixed-light cultivation, a minimum setback of 100 feet is required from property lines and a minimum 300 foot setback is required from residential structures on surrounding parcels. For outdoor and mixed-light cultivation, a 1,000 foot setback from property line to property line is currently required from K-12 schools, public parks, Class 1 Bikeway, childcare centers, or a drug/alcohol treatment center. All structures for indoor cultivation are required to meet setbacks in the base zone and must also be located a minimum of 600 feet from K-12 schools. Mixed light structures (whether permanent or temporary in nature) have the same setback requirements as outdoor cultivation areas.

Consistent with the existing Ordinance, setbacks in the proposed Ordinance update for outdoor and hoophouse cultivation uses would be:

- Property Lines – 100 feet;
- Neighboring Residential Structures – 300 feet;
- Sensitive Uses – 1,000 feet from K-12 schools, public parks, daycare centers, Class I Bikeway, or an alcohol/drug treatment facility.

Setbacks would be measured from the nearest outdoor cultivation and hoophouse structure on a site to the nearest property lines and to neighboring residences as well as sensitive uses as specified in the ordinance. Proposed setbacks for indoor and greenhouse cultivation and associated structures, including

mixed light cultivation that occur within greenhouses would be the same setbacks as required by the base zone and any applicable combining zone.

Biotic Resources

Biotic resource protection measures are included in the current Ordinance. These include a requirement for a biotic assessment at the time of application. Setbacks from Riparian Corridor Stream Conservation Areas (RC combining zone) and wetlands are also included in the County Code.

A proposed updated biotic resources section of the Cannabis Land Use Ordinance is oriented toward further protecting sensitive and special status species habitat. A biotic assessment prepared by a County approved qualified biologist concluding that the project would not result in impacts or “take” of protected plant and animal species is required for projects with or adjacent to native habitat areas. The requirement for the biotic assessment to be prepared by a qualified biologist is new and is included to ensure that biotic resources are properly assessed and protected. The updated ordinance also states that a use permit will be required if the qualified biologist in the biotic resources assessment recommends mitigation measures.

Timberland and Farmland Protection

The current Cannabis Land Use Ordinance limits cannabis cultivation activities, including associated structures to non-forested areas in existence before December 20, 2016, and prohibits any tree removal without a use permit. Important and unique farmland protection provisions are also included in the current Ordinance.

The updated Cannabis Land Use Ordinance includes additional protections for timberland and farmland and associated structures. Compliance will be with minor and major timberland conversion provisions per State law.

Several new farmland protection measures that are proposed in the updated Ordinance include adherence to General Plan Policy AR-4a, which states that “The primary use of any parcel within the three Ag land use categories shall be agricultural production and related processing.” Indoor and mixed light cultivation facilities would not be allowed to remove agricultural production within important farmlands, including prime, unique, and farmlands of statewide importance as designated by the state farmland mapping and monitoring program, unless the agricultural production on a parcel unless (1) the agricultural production is offset at a 1:1 ratio and (2) the parcel does not contain important farmlands. . Additionally, if the site is under a Land Conservation Act (Williamson Act) contract, the use must comply with the Land Conservation Act contract, an applicable land conservation plan, and the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones. Farmland protection includes the following revised and new provisions:

- A new permanent structure, or the expansion of an existing permanent structure, for or in support of indoor or mixed light cultivation cannot be sited within important farmlands, including prime, unique, and farmlands of statewide importance as designated by the state farmland mapping and monitoring program.
- A new permanent structure, or the expansion of an existing permanent structure, for or in support of indoor or mixed light cultivation cannot remove irrigated agricultural production on a parcel, unless (1) the irrigated agricultural production is offset at another location on the parcel at a 1:1 ratio, and (2) the parcel does not contain important farmlands, as described in subsection B.1.a., above.

A “new permanent structure,” means a permanent structure legally constructed on or after January 1, 2021; an “expanded permanent structure,” means an addition or expansion to an existing permanent structure that results in a modification to the building footprint or an expansion of the square footage of the structure; and “irrigated agricultural production,” means the land is or has been used for irrigated agricultural production at any point in the four years prior to the date of the permit application.

Cultural and Historic Resources

The current Cannabis Ordinance requires that cultivation operations involving ground disturbing activities shall avoid impacts to significant cultural and historic resources. Sites located within a Historic District are subject to review by the Landmarks Commission, unless exempt and are required to obtain a use permit. Cultivation operations involving ground disturbing activities, including but not limited to new structures, roads, water storage, trenching for utilities, water, wastewater, or drainage systems are subject to design standards and referral to the Northwest Information Center and local tribes. A use permit is required if mitigation is recommended by the cultural resource survey or local tribe. The following minimum standards apply to current cultivation permits involving ground disturbance and are required to include the following notes on the grading plans:

If paleontological resources or prehistoric, historic-period, or tribal cultural resources are encountered during ground-disturbing work at the project location, all work in the immediate vicinity shall be halted and the operator must immediately notify the agency having jurisdiction of the find. The operator shall be responsible for the cost to have a qualified paleontologist, archaeologist, and tribal cultural resource specialist under contract to evaluate the find and make recommendations in a report to the agency having jurisdiction. Paleontological resources include fossils of animals, plants, or other organisms. Historic-period resources include backfilled privies, wells, and refuse pits; concrete, stone, or wood structural elements or foundations; and concentrations of metal, glass, and ceramic refuse. Prehistoric and tribal cultural resources include obsidian and chert flaked-stone tools (e.g., projectile points, knives, choppers), midden (culturally darkened soil containing heat-affected rock, artifacts, animal bone, or shellfish remains), stone milling equipment, such as mortars and pestles, and certain sites features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.

If human remains are encountered, work in the immediate vicinity will stop and the operator shall notify the agency having jurisdiction and the Sonoma County Coroner immediately. At the same time, the operator shall be responsible for the cost to have a qualified archaeologist under contract to evaluate the discovery. If the human remains are determined to be of Native American origin, the Coroner must notify the Native American Heritage Commission within twenty-four (24) hours of this identification.

In the updated Ordinance, for cannabis cultivation or related activities involving alteration, modification, or demolition of a structure over 45 years old, applicant must submit a historic resource survey demonstrating and concluding that all impacts to significant cultural and historic resources will be avoided. Cannabis cultivation and related activities proposed within the Historic Combining District, Section 26-68, of Chapter 26 of the Sonoma County Code, shall be subject to review by the landmarks commission, unless otherwise exempt, consistent with Section 26-68-020, and shall be required to obtain a use permit.

For cannabis cultivation or related activities involving ground disturbance, applicant must submit a cultural resource survey demonstrating and concluding that all impacts to significant cultural resources will be avoided. Cannabis cultivation and related activities, involving ground disturbance, including but not limited to construction of new structures, roads, water storage, and trenching for utilities, water, wastewater, or drainage systems, shall be subject to design standards and referral to the Northwest Information Center and local tribes. A use permit will be required if mitigation is recommended by the cultural resource survey or local tribe.

Fire Prevention

The current Cannabis Land Use Ordinance and proposed Ordinance update require that the applicant prepare a fire prevention plan for construction and ongoing operations. The fire prevention plan must include emergency vehicle access and turn-around at the facility, vegetation management and firebreak maintenance. Current Sonoma County Fire Safety Standards in Chapters 13 and 13A of the County Code

would continue to apply to cannabis cultivation facilities.

Grading and Slopes

Grading is regulated by Chapter 11 of the Sonoma County Code. Grading is the removal or deposition of earth material by artificial means. Grading is generally a combination of excavation (cuts) and placement (fill) of soil. Grading does not include routine farming practices. See SCC §11.26.020. However, both the current and updated Ordinances include grading and slope standards whereby a cultivation site is only allowed on a slope of 15 percent or less, unless a use permit is obtained. Cannabis cultivation shall also be set back 50 feet from the delineated slope break of descending existing slopes greater than 50 percent for more than 50 feet in slope length. No additional grading and slope protection provisions are proposed in the updated ordinance and the current County grading ordinance provisions will be used for cannabis cultivation facilities.

Design and Security

The current Cannabis Land Use Ordinance requires review of proposed cultivation plans by the County's Design Review Committee unless waived by the Director. As described in the setback section above, the current Ordinance has screening requirements to prevent viewing of cannabis cultivation areas from adjacent public rights-of-way and public viewing areas such as parks or open space. Outdoor light screening provisions are also included in the current Ordinance. The proposed Ordinance will require adherence to design standards in the County Code (Chapter 26; Sec. 26-82-030, General Development Standards) as well as provisions for protection of the County's Scenic Corridors (Sec. 26-64-030, as shown on Figures OS-5a through OS-5i of the Sonoma County General Plan Land Use Element).

Under both the current and proposed Ordinance, lighting must be fully shielded and downward casting so as not to spill over onto neighboring properties or the night sky. A comprehensive plan is required for each cultivation permit. In addition, fencing and screening standards are included such as a requirement that an outdoor or hoop house cultivation area must be fully fenced with locking gates. Screening of all outdoor and mixed light cultivation areas must be provided by non-invasive fire resistant vegetation. A provision that no outdoor or mixed light cultivation site located on a parcel adjacent to a public park shall be visible from trails, Class 1 Bikeways, or public access points is included in the updated Ordinance as well.

Air Quality and Odor

Air quality and odors are addressed under the Operating Standards section of the current Ordinance. Current ordinance language requires that all indoor and mixed light cultivation operations and any drying, curing, trimming, and packing facilities be equipped with odor control filtration and ventilation system(s) to control odors, humidity, and mold. All cultivation sites shall utilize dust control measures on access roads and all ground disturbing activities.

The proposed Ordinance update requires that all indoor and permanent mixed light cultivation structures, as well as structures used for drying, curing, trimming, and packaging of cannabis be equipped with odor control filtration and ventilation system(s) to mitigate odors. The proposed Ordinance update includes similar dust control measures.

This section in the updated Ordinance also includes standards for energy use including an allowable power source (an on-grid or 100 percent renewable energy source). Generators may be used only in an emergency. These measures are also included in the existing Ordinance.

Waste management measures such as standards for garbage storage, removal of waste at least every 7 calendar days, and prevention of public access to cannabis waste are included in the updated and existing Ordinances.

Wastewater and Runoff

Wastewater discharge requirements are included in both the current and updated Ordinances. They require the cultivation operation applicant to submit a wastewater management plan that complies with best management practices such as an estimate of the amount of wastewater to be discharged from the site. In addition, runoff and stormwater management plans are required to be submitted for erosion control during construction and operation of the cannabis cultivation use. No updates to these requirements are proposed in the updated Ordinance.

Water Use

The current Cannabis Ordinance and proposed updated Ordinance requires that the applicant demonstrate an on-site water source adequate to meet all water use on a sustainable basis. Documentation from a retail water source that adequate supplies are available to serve the proposed use is required. A recycled water plan is required for using on-site recycled water or connecting to a municipal recycled water supply. As in the current Ordinance, surface water is regulated in accordance with State law where some water sources such as stored rainwater is exempt from State regulation and other surface water sources such as streams are regulated by the California Department of Fish and Wildlife.

The use of groundwater is regulated by the County, which requires documentation at the time of application that the site is located in Groundwater Availability Zone 1 or 2, and not within a critical watershed, an area for which a groundwater management plan has been adopted, or a high or medium priority basin as defined by the State Department of Water Resources. Low groundwater availability areas, such as those in Groundwater Availability Zones 3 and 4 per the Sonoma County Code, are regulated in the existing and proposed Ordinances through a variety of measures including the requirement to conduct a dry season well yield test demonstrating minimum yield to support the combined groundwater use of existing and proposed uses. Requirements for critical watersheds, groundwater monitoring, and the need for a groundwater monitoring easement are also included in both the existing and the proposed Ordinance. Trucked water is only allowed in an emergency, as determined by the Agricultural Commissioner, unless a use permit is obtained.

Articles 08, 14 and 18. Operating Requirements and Allowable Activities and Definitions **Operating Requirements – Section 38.08.101**

This section of the proposed updated Ordinance includes current requirements that the cultivation permit holder pay Sonoma County cannabis business taxes in compliance with Sonoma County Code Chapter 35, the Sonoma County Cannabis Business Tax Ordinance. The proposed Ordinance adds the requirement that a permit holder must maintain an active state cannabis license and submit a copy of current license to the Agricultural Commissioner and Cannabis Program Manager.

Allowable Activities – Section 38.14.020

This section of the proposed Ordinance update includes hours/days of operation (7 days per week, 24 hours per day). Deliveries are allowed only from 8:00 a.m. to 5:00 p.m.. Processing and self-distribution of cannabis are allowable activities, which is not allowed under the existing ordinance. The updated Ordinance includes a provision to allow more than one business to operate under a single cannabis permit as long as each business maintains an active state cannabis license. Regular activities and events including cannabis site tours, and tastings would not be specifically prohibited under the proposed Ordinance update and would instead be subject to existing regulations in the Zoning Code. The updated ordinance clarifies that vegetative and propagative plant material can only be cultivated on-site for on-site use. Such plant material must be kept in a separate, unique area away from flowering plants. Propagation that is not indoors is limited to 25% of the cultivation area. Structures utilized for propagation are subject to the limitations for cannabis cultivation canopy restrictions

Definitions and Specialized Terms – Section 38.18.020

The following new definitions have been included in the proposed Ordinance:

“Building coverage,” means the percentage of total lot area covered by structures, not including pavement, driveways, uncovered decks less than thirty inches (30”) in height, or roof overhangs less than two feet (2’) wide.

“Cannabis cultivation” means any activity involving the propagation, planting, growing, harvesting, drying, curing, grading, or trimming of cannabis. Cannabis cultivation does not include “cannabis dispensary” uses or “cannabis testing laboratory” uses. Cannabis cultivation does not include use of any farm stand for temporary or seasonal sales and promotion of cannabis or cannabis products.

“Cannabis dispensary” means a facility where cannabis, cannabis products, or devices for the use of cannabis are offered, either individually or in any combination, for retail sale, including an establishment that delivers cannabis and/or cannabis products as part of a retail sale.

“Cannabis testing laboratory” means a laboratory, facility, or entity in the state of California that offers or performs tests of cannabis or cannabis products.

“Day care center” means a day care center as defined by California Health and Safety Code Section 1596.76.

“Structure” means anything constructed or erected, the use of which requires location on the ground attachment to something having location on the ground. (Cross-reference: Section 26-02-140.)

General Plan Amendment

In support of the proposed updated Ordinance, Sonoma County is also proposing to amend the County’s General Plan 2020 to redefine agricultural land use as inclusive of cannabis cultivation. Pursuant to Objective AR-4.1 in the Agricultural Resources Element, the General Plan currently defines “agriculture” as “[t]he commercial production of food, fiber and plant material, or the raising and maintaining of horses, donkeys, mules, and similar livestock.” This definition would be amended to expressly include cannabis cultivation. In 2016, the Board of Supervisors found that cannabis should be treated differently from other agriculture because its classification under the federal Controlled Substances Act may cause it to have characteristics that were distinct from other agriculture. The County has since found that despite this federal classification, cannabis cultivation functions similarly to other agricultural operations and that it fits within the plain language and intent of the term “agriculture.”

IV. SUMMARY OF ENVIRONMENTAL ISSUES

Based on the description of the current Ordinance and proposed updated Ordinance provided above, the following revisions analyzed in the IS/SMND could potentially result in physical impacts to the environment, if not mitigated:

- **Aesthetics.** The updated Ordinance would allow for an increase in the acreage of cultivation within scenic vistas located outside the coastal zone. Whereas the current Ordinance restricts the total area of outdoor, mixed-light, and indoor cultivation in agricultural and resource zoning districts to no more than one acre per parcel, the updated Ordinance would instead limit cultivation by percent of parcel coverage. Plant canopy cover for outdoor cannabis cultivation and hoop houses would be limited to 10 percent of a parcel. In addition, new cannabis structures on parcels greater than 20 acres in size would be restricted to 50 percent of the maximum lot coverage prescribed for the base zone. These new provisions would allow for more than one acre of cannabis cultivation on parcels at least 10 acres in size. They would also allow for an increase in the number and size of greenhouses, indoor cultivation structures, and other supporting structures, as well as more fencing to protect these structures. A new, reconstructed, or an expanded permanent structures that would need to comply with objective design standards adopted by the Board of Supervisors. As a result, the updated Ordinance could lead to an expansion of cannabis cultivation and associated structures on parcels within scenic vistas.

Mitigation measures include standards for screening such as native vegetative barriers and a prohibition on the use of glare producing materials for greenhouses and other structures.

- **Air Quality.** Large-scale operations on parcels at least 60 acres in size could exceed the BAAQMD's applicable screening criterion of approximately 5.95 acres for NO_x, an ozone precursor. As a result, it is possible that cannabis operations would generate NO_x emissions exceeding the BAAQMD's significance threshold of an average of 52 pounds per day during construction or operation, contributing to regional ozone pollution. During the construction of cannabis projects, ground disturbance and the use of construction vehicles on unpaved surfaces could cause a significant short-term increase in emissions of dust emissions, including PM₁₀ and PM_{2.5}. To reduce dust emissions, the updated Ordinance would require that cannabis cultivation sites "utilize dust control measures on access roads and all ground disturbing activities." However, this provision does not specify effective, feasible measures that would substantially control dust emissions. Mitigation measures would include a screening analysis and control of NO_x emissions for large projects, and stronger dust control measures.
- **Biological Resources.** Cannabis cultivation on existing agricultural parcels as well as construction of new associated permanent structures could potentially require some tree removal. Although future cannabis projects would be required to obtain a use permit prior to removal of protected trees, neither the County's tree protection ordinance nor provisions in the updated Ordinance would ensure that such trees are replaced after removal occurs, and that replacement trees are fully protected during project activities. Therefore, the updated Ordinance may result in a loss of trees that is inconsistent with local policies and ordinances. Mitigation would require the replacement of protected trees if removed from cultivation sites.
- **Energy.** The operation of future cannabis cultivation projects would increase gasoline, electricity, and natural gas consumption due to increased vehicle trips and operational energy needs. Because the updated Ordinance would allow for larger cannabis operations, though constrained by percent of parcel size, large-scale new cannabis uses could potentially exceed energy supply during operation. Mitigation would require that applicants prepare an Energy Conservation Plan with a package of measures to reduce or offset the project's energy demand.
- **Geology and Soils.** The updated Ordinance would not require paleontological resource studies prior to construction to effectively identify the potential for paleontological resources to occur at a project site. Mitigation would include a requirement that potential paleontological resources be identified and properly avoided prior to ground disturbing activities more than five feet below the ground surface.
- **Hazards and Hazardous Materials.** Future cannabis cultivation projects could be located on sites in the Cortese List, which have known hazardous materials. Additionally, projects would be located on lands zoned for agricultural uses that are typically associated with the historical use of pesticides and arsenic. Project construction activities that disturb soils on-site could potentially result in the release of hazardous materials into the environment related to previous agricultural use. Mitigation would include the investigation and remediation, if necessary, of contaminated soils on the project site.
- **Noise.** Although the rural siting of cultivation sites and mandatory setbacks would reduce the exposure of sensitive receptors to construction noise, it is expected that some construction activity would generate perceptible increases in ambient noise at sensitive receptors. Construction also could occur in more sensitive evening or nighttime hours unless otherwise prohibited. Heating, ventilation, and air conditioning (HVAC) equipment at cannabis operations and amplified sound at special events also could exceed the County's exterior noise standards. Mitigation would include measures to substantially reduce construction noise at projects located within 1,000 feet of sensitive receptors, setback and shielding requirements for HVAC equipment, and restrictions on the use of amplified sound.
- **Transportation.** New cannabis cultivation projects would have the potential to increase total vehicle miles traveled (VMT) in Sonoma County, as a result of employees driving to and from cultivation sites. These sites would be located in rural areas of the County, where existing average trip lengths are higher than in urban and suburban areas. Individual applicants would need to provide evidence that they would generate fewer than 110 average daily trips, or

alternatively provide a full analysis of potential VMT impacts. Mitigation would require this analysis and, as needed, implementation of measures to reduce VMT.

- **Wildfire.** The updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated structures within high fire risk areas. Severe wildfires damage the forest or shrub canopy, the plants below, as well as the soil. In general, this can result in increased runoff after intense rainfall, which can put homes and other structures below a burned area at risk of localized floods and landslides. Existing fire codes and regulations cannot fully prevent wildfires from damaging structures or harming occupants. Mitigation would include reducing the risk of wildfire for sites located near steep slopes and vegetative wildfire fuels and during construction, as well as additional project siting criteria.

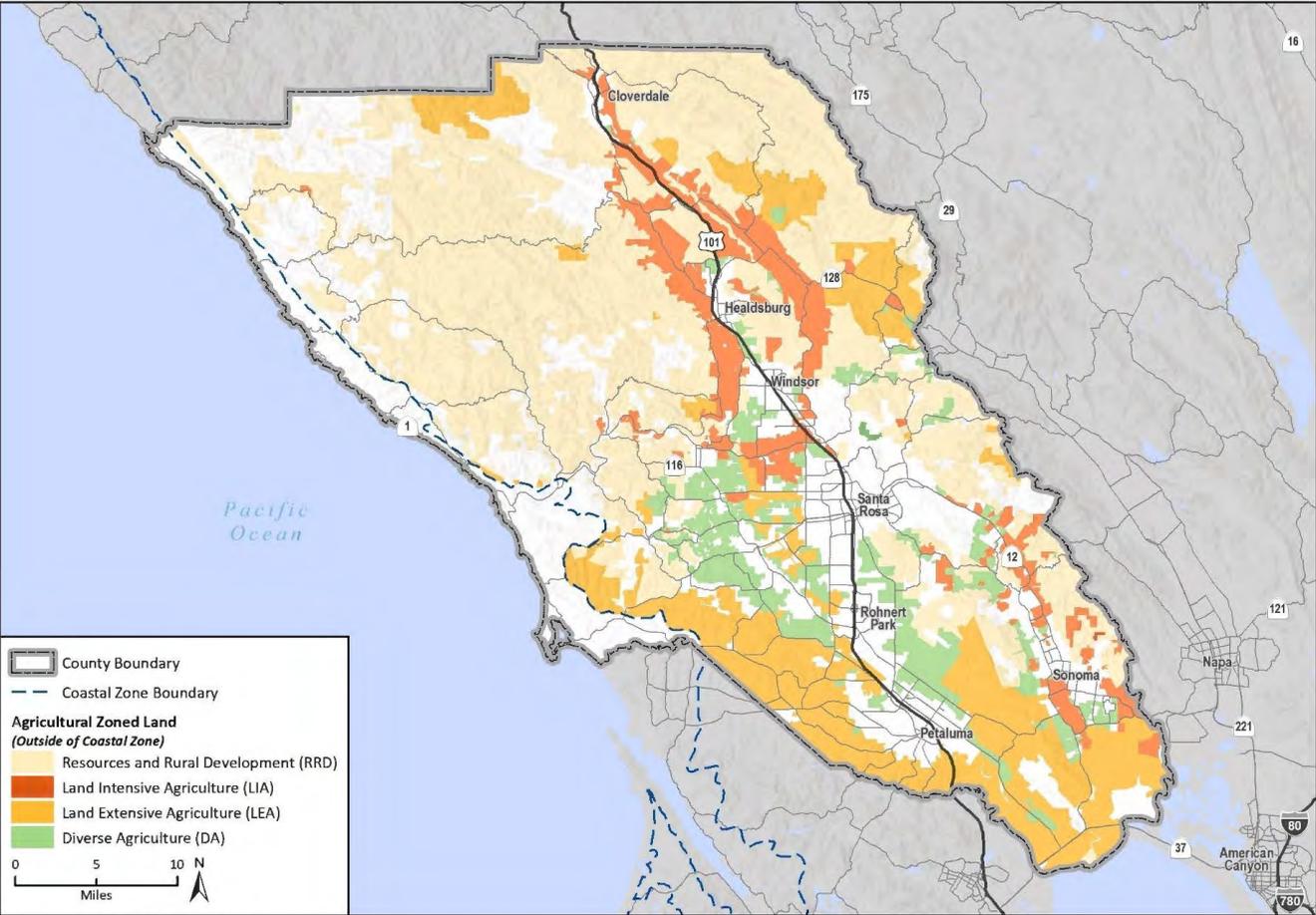
V. SETTING

Sonoma County has implemented an Agricultural Resources Element in the General Plan 2020 that establishes policies to insure the stability and productivity of the County's agricultural lands and industries. Any project must comply with the goals and policies related to agriculture within the context of the General Plan 2020. The Land Use Element establishes four land use designations for agricultural lands, all outside of the Coastal Zone: Diverse Agriculture, Land Extensive Agriculture, Land Intensive Agriculture, and Resources and Rural Development. The Sonoma County Code of Ordinances applies four zoning districts to these agricultural lands, which share the same names as their respective land use designations. Figure 1 shows the location of County lands zoned for Agricultural uses.

Currently approximately 709,124 acres of the County are zoned for Agricultural uses. The updated Ordinance would affect a portion of County lands zoned for Agricultural uses. The existing Ordinance requires a 10-acre minimum parcel size for commercial cannabis operations and caps the cultivation area permitted on each parcel at one acre. Approximately 657,534 acres are both zoned for Agricultural uses and located on parcels above 10 acres in size. This estimate of the acreage affected by the updated Ordinance is conservative and does not account for several factors that would further limit cannabis cultivation, such as the County prohibition on cultivation where slopes exceed 15 percent, required setbacks from neighboring uses, and riparian corridor setbacks.

Sonoma County revised the Right-to-Farm Ordinance in 1999 to help protect, enhance, and encourage farming operations. The Ordinance requires recordation of a declaration acknowledging the right to farm in connection with certain development approvals within 300 feet of any land zoned for agricultural use and does not permit any neighboring property located on or adjacent to agricultural land to oppose any inconvenience or nuisance caused by any type of properly conducted agricultural activity on agricultural land.

Figure 1. Agricultural Zoned Land in Sonoma County



Basemap provided by Esri and its licensors © 2020.
Additional data provided by County of Sonoma, 2020.

Fig. 1. Ag Zoning Map CC

[Link to Map Viewer](#)

There are 78 ministerial permits that have been issued to date (including renewals) for medical cannabis cultivators, nurseries, manufacturers, and transporters, distributors, testing laboratories, and dispensaries. A total of 32 conditional use permits (CUPs) have also been approved and 3 have been issued (met compliance conditions of approval). There are currently 78 ministerial and 55 CUPs in process; applicants interested in establishing cannabis cultivation operations in unincorporated Sonoma County, including 39 cultivation permits. It should be noted that some applicants may hold two license types at the same location. For example, a cultivation licensee may also hold a manufacturing license at the same location.

IV. ISSUES RAISED BY THE PUBLIC OR AGENCIES

A referral packet was drafted and circulated to inform and solicit comments from selected relevant local, state, and federal agencies; and to special interest groups that were anticipated to take interest in the project.

V. OTHER RELATED PROJECTS

Other related projects that may affect cannabis cultivation regulations and uses include a Winery Events Ordinance that may also address Cannabis cultivation facility special events and an update to the County's Fire Safe Regulations.

VI. EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts of this project based on the criteria set forth in the State CEQA Guidelines and the County's implementing ordinances and guidelines. For each item, one of four responses is given:

No Impact: The project would not have the impact described. The project may have a beneficial effect, but there is no potential for the project to create or add increment to the impact described.

Less Than Significant Impact: The project would have the impact described, but the impact would not be significant. Mitigation is not required, although the project applicant may choose to modify the project to avoid the impacts.

Potentially Significant Unless Mitigated: The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.

Potentially Significant Impact: The project would have the impact described, and the impact could be significant. The impact cannot be reduced to less than significant by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The Initial Study includes a discussion of the potential impacts, with separate headings for impacts attributed to the updated Ordinance and those attributed to the proposed General Plan amendment to redefine agricultural land use in the County. Where impacts are potentially significant, the Initial Study identifies mitigation measures to substantially reduce those impacts to a level of insignificance where feasible. All references and sources used in this Initial Study are listed in the Reference section at the end of this report and are incorporated herein by reference.

1. AESTHETICS:

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

Comment:

Updated Ordinance

As discussed in the 2016 Medical Cannabis Land Use Ordinance Negative Declaration (ND), the County has many open and undeveloped scenic vistas that are visible from public roadways, and cannabis cultivation may occur within scenic vistas. Although cannabis appears similar to vineyards and other row crops, it often involves the use of visible structures, including temporary hoop houses to protect outdoor cannabis from rain; greenhouses for mixed light cultivation; indoor cultivation in structures with an industrial appearance; and structures for drying, trimming, and packaging. In addition, the high value of cannabis as a crop creates the need for solid fencing, screening, and restroom facilities to serve employees, which may affect scenic views. Cannabis structures have potential to be visible from scenic corridors and could contrast with the general form, scale, and bulk of other structures or vegetation in rural areas. Greenhouses and hoop houses, especially, can have highly visible light-reflective materials. Therefore, the 2016 ND found that cannabis structures could have an adverse effect on scenic views if not appropriately designed, sited, and screened from public view.

The updated Ordinance would allow for an increase in the acreage of cultivation within scenic vistas that are located outside the coastal zone. Whereas the current Ordinance restricts the total area of outdoor, mixed-light, and indoor cultivation in agricultural and resource zoning districts to no more than one acre per parcel, the updated Ordinance would instead limit cultivation by percent of parcel coverage. Plant canopy cover for outdoor cannabis cultivation and hoop houses would be limited to 10 percent of a parcel. In addition, new cannabis structures on parcels greater than 20 acres in size would be restricted to 50 percent of the maximum lot coverage prescribed for the base zone. These new provisions would allow for more than one acre of cannabis cultivation on parcels at least 10 acres in size. As explained in Section 2, *Agriculture and Forest Resources*, the updated Ordinance could allow a potential maximum of up to 65,753 acres of future commercial cannabis cultivation in unincorporated Sonoma County if all land covered under the updated Ordinance was converted to cannabis cultivation operations. This would be the potential maximum buildout and it is extremely unlikely that all available land would be put into cannabis cultivation. The updated Ordinance also would allow for an increase in the number and size of greenhouses, indoor cultivation structures, and other supporting structures, as well as more fencing to protect these structures. As a result, the updated Ordinance could lead to an expansion of cannabis cultivation and associated structures on parcels within scenic vistas.

To avoid potentially adverse visual effects from cannabis structures, among other land use conflicts, the updated Ordinance includes setback standards for outdoor, mixed light, and indoor cultivation structures. Consistent with the existing Ordinance, outdoor cultivation and hoop houses would be required to be set back at least 100 feet from property lines, at least 300 feet from neighboring residential structures on offsite properties, and at least 1,000 feet from sensitive uses such as K-12 schools, public parks, Class 1 Bikeways, and daycare centers. For indoor cannabis cultivation and greenhouses, the updated Ordinance would maintain existing requirements of compliance with setbacks applicable in the base zone and any combining zone, as well as a setback of at least 600 feet from schools.

In addition to setback standards, the updated Ordinance would maintain other existing requirements to minimize the visibility of cannabis uses from public vantage points. No outdoor or mixed light cultivation site that is located on a parcel adjacent to a public park would be allowed to be visible from trails, Class 1 Bikeways, or public access points. At all outdoor and mixed light cultivation sites, non-invasive fire resistant vegetation would be required to screen views of cannabis cultivation. Where

cannabis cultivation may occur in scenic vistas, these visibility and screening standards would further reduce the effect of cannabis structures on both public and private views.

The updated Ordinance also would require that new cannabis structures be subject to the design review standards in Section 26-82-030 of the County Code. Applicable design review standards that are most relevant to preservation of scenic vistas include the following: orienting building sites to maintain natural topography and cover, designing buildings and fences for harmony with site characteristics and nearby buildings, and screening mechanical and air-conditioning apparatus from view. Implementation of these standards would reduce visual disruption of landforms and vegetative cover, while improving the compatibility of cannabis structures with their site and surrounding buildings such as barns. Additionally, for cannabis cultivation sites located within the Scenic Resources Combining District, new structures would be subject to further setback standards in Section 26-64-030 of the County Code. This would minimize the visibility of cannabis structures from roadways with scenic vistas.

With the existing and proposed standards described above, the updated Ordinance would result in a less than significant impact to the County's visual resources and, specifically, scenic vistas.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Instead, the amendment would represent a formal recognition that cannabis cultivation is an agricultural activity that shares many attributes with other types of agricultural cultivation. This change in the County's definition of agriculture would not result in adverse effects on scenic vistas. Therefore, the General Plan amendment would have a less than significant impact on scenic vistas.

Significance Level: Less than Significant Impact

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Comment:

Updated Ordinance

Two State-designated scenic highways occur in Sonoma County: State Route (SR) 12 and SR 116 (Caltrans 2019). These scenic highways traverse rural landscapes that are zoned for agricultural and resource uses (Sonoma County 2020a). Because the updated Ordinance would allow for increased cannabis cultivation in agricultural and resource zoning districts, it could result in the permitting of additional cannabis cultivation and associated structures within view of SR 12 and 116 in rural parts of the County. If cannabis structures would be constructed or altered within 200 feet of the centerline of scenic segments of SR 12 and SR 116, which is in the "SR" Scenic Resources Combining District, Section 26-64-050 of the County Code would require design review and approval. This review process would ensure that cannabis structures located within scenic corridors conform to the setback requirement in Section 26-64-030 of the County Code: 30 percent of the depth of the lot, up to a maximum of 200 feet from the centerline of the road. As an exception, new structures could be located within this setback if they undergo design review, there is no other reasonable location, the location is necessary for the use, and existing vegetation and topography screen the use. Although traditional agricultural structures such as barns are exempt from this requirement for design review, the County does not consider cannabis structures to qualify as traditional structures. Therefore, new cannabis structures within State scenic highway corridors would undergo a design review process to avoid adverse effects on scenic views available to highway users.

Furthermore, the updated Ordinance would continue to require vegetative screening of fencing around outdoor and mixed light cultivation sites. Vegetative screening would reduce the visibility of cannabis structures from scenic highway corridors. If proposed cannabis structures were to be

substantially visible despite screening, they would be subject to County approval of a use permit and thereby required to visually conform to the rural character of scenic highways.

New or expanded cannabis operations under the updated Ordinance also would have the potential to require removal of mature trees; however, Section 38.12.060 in the updated Ordinance would prohibit tree removal or timber conversion to accommodate a cultivation site unless the applicant obtains a use permit. This provision would maintain a tree protection requirement in the existing cannabis ordinance (Section 26-64-050 of the County Code). The updated Ordinance also would maintain existing requirements to locate cannabis operations outside protected habitats that may include trees. In addition, it would continue to require that all cannabis structures be outside Riparian Corridor Stream Conservation Areas (RC combining zone) and Biotic Habitat areas (BH combining zone), while outdoor cultivation areas “must comply with the Riparian Corridor setback for agricultural activities set forth in Section 26-65-040.” These provisions would protect mature trees in scenic highway corridors and elsewhere in the unincorporated County.

As detailed in item 5.a, the updated Ordinance would protect historic buildings. The proposed Section 38.12.050 of the County Code would require that cannabis cultivation sites avoid impacts to significant historic resources. It is not anticipated that the construction of new cannabis structures would damage scenic rock outcroppings because of their rarity and the expense of demolishing them. Therefore, implementation of the updated Ordinance would not result in substantial damage to scenic resources in State scenic highways. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As a result, it would not cause adverse effects on scenic resources. Therefore, the General Plan amendment would have a less than significant impact on scenic vistas.

Significance Level: Less than Significant Impact

- c) **In non-urbanized areas, 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 a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Comment:

Updated Ordinance

The updated Ordinance would allow for an increase in the acreage of cannabis operations in agricultural and resource zoning districts, which are located in non-urbanized portions of Sonoma County. As discussed in item 1.a, the current Ordinance restricts cannabis cultivation in these zoning districts to no more than one acre per parcel. However, the updated Ordinance would instead limit cultivation by percent of parcel coverage. Plant canopy cover for outdoor cannabis cultivation and hoop houses would be limited to 10 percent of a parcel. This would allow for more than one acre of cannabis cultivation on parcels at least 10 acres in size. As a result, the updated Ordinance could lead to a substantial expansion of cannabis cultivation and associated structures in non-urbanized areas. New cannabis structures could be located within view of publicly accessible vantage points at public parks, K-12 schools, Class 1 Bikeways, and roadways, as well as from nearby private properties.

As detailed in item 1.a, new cannabis operations could include visible structures, such as temporary hoop houses, large greenhouses, indoor cultivation structures, and structures for drying, trimming, and packaging. Other visible structures would include solid fencing and, potentially, restroom facilities for employees. It is common for agricultural operations to have structures such as barns and silos that are classic elements of a rural landscape and compatible with its visual character. The proposed project would involve redefining the definition of agriculture in the County’s General Plan to include

cannabis cultivation, recognizing that this form of cultivation has many similarities with typical agricultural activities. Nonetheless, some new cannabis structures permitted under the updated Ordinance could contrast with the general form, scale, and bulk of other agricultural structures or vegetation in rural areas, altering the visual character of rural areas.

To avoid potentially adverse visual effects from cannabis structures, the updated Ordinance includes setback and screening standards for outdoor, mixed light, and indoor cultivation structures. Consistent with the existing Ordinance, outdoor cultivation and hoop houses would be set back at least 100 feet from property lines, at least 300 feet from neighboring residential structures on offsite properties, and at least 1,000 feet from sensitive uses such as K-12 schools, public parks, Class 1 Bikeways, and daycare centers. For indoor cannabis cultivation and greenhouses, the updated Ordinance would maintain existing requirements of compliance with setbacks applicable in the base zone and any combining zone, as well as a setback of at least 600 feet from schools. Proposed setback standards in the updated Ordinance would reduce the visibility of cannabis structures from public viewpoints such as parks and schools.

As discussed in item 1.a, the updated Ordinance also would require that permits be required for new cannabis structures. New structures would be subject to the design review standards in Section 26-82-030 of the County Code. These standards include orienting building sites to maintain natural topography and cover, designing buildings and fences for harmony with site characteristics and nearby buildings, and screening mechanical and air-conditioning apparatus from view. Implementation of these standards would reduce visual disruption of landforms and vegetative cover, while improving the compatibility of cannabis structures with their site and surrounding buildings such as barns.

In addition, the updated Ordinance would maintain some of the existing requirements to minimize the visibility of cannabis uses from public vantage points. For example, outdoor canopies located on parcels adjacent to public parks may not be visible from trails, Class 1 Bikeways, or public access points. Fencing that is visible from a public right of way must be screened with non-invasive fire-resistant vegetation. However, this screening standard would remove the existing requirement to screen indoor cultivation structures from public view and does not include a performance standard for adequate screening. As proposed, the screening requirements would not apply to public views of indoor cannabis structures and would not ensure the adequacy of screening for outdoor and mixed light structures. In addition, they would not ensure screening of cannabis structures from public roadways. Therefore, the updated Ordinance would have a potentially significant impact on visual character and quality in rural areas. After incorporating mitigation to improve screening requirements, this impact would be reduced to a less than significant level.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not cause development that could degrade the existing visual character or quality of public views. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice, with many similarities to other types of agricultural production. It is common for agricultural operations to include visible structures such as barns and silos. However, as discussed above, the updated Ordinance could allow for additional cannabis structures (especially light-reflective greenhouses and hoop houses) that could contrast with the general form, scale, and bulk of other agricultural structures or vegetation in rural areas. Therefore, Mitigation Measure VIS-1 would be required to reduce the visibility of cannabis structures. The above analysis determines that this impact would be less than significant after incorporating mitigation.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure VIS-1 Vegetative Screening:

In the updated Ordinance, Section 38.12.010 shall be amended as follows to enhance screening requirements:

“D. Fencing, Screening, and Visibility

1. Fencing. An outdoor or hoop house cultivation area must be fully fenced with locking gates that allow emergency access. Razor wire and similar fencing is not permitted.
2. Screening. Fencing that is visible from a public right of way must be screened. Vegetative screening can only include non-invasive, fire-resistant vegetation. All outdoor, mixed light, and indoor cultivation sites must be screened by non-invasive fire resistant vegetation so as to minimize visibility from the perspective of public roadways, K-12 schools, Class 1 Bikeways, public parks, and daycare centers. Screening vegetation shall be fast-growing and evergreen. Upon maturity, the vegetation shall largely block view of cannabis structures from public viewpoints. Examples of appropriate screening vegetation may include, but are not limited to, *Prunus ilicifolia* (hollyleaf cherry), native *Ceanothus* species, *Heteromeles arbutifolia* (toyon), *Myrica californica* (Pacific wax myrtle), *Arctostaphylos* (manzanita) species, *Thuja occidentalis* (northern white-cedar), and *Juniperus californica* (California juniper).
3. Visibility. No outdoor canopy can be visible from a public right of way. No outdoor canopy located on a parcel adjacent to a public park can be visible from trails, Class 1 Bikeways, or public access points.”

Mitigation Monitoring:

Mitigation Monitoring VIS-1:

The Department of Agriculture/Weights & Measures shall not issue a building permit or a ministerial cannabis cultivation permit for outdoor, mixed light, and indoor cannabis structures until verifying that site plans incorporate adequate vegetative screening consistent with the requirements in Mitigation Measure VIS-1. (Ongoing)

d) Create a new source of substantial light or glare which would adversely affect day or nighttime view in the area?

Comment:

Updated Ordinance

The updated Ordinance would allow for additional cannabis structures in agricultural and resource zoning districts, such as greenhouses, which may include nighttime lighting for security purposes. New light sources at cannabis sites would be located in rural areas of Sonoma County that are relatively dark at night. Consistent with the existing Ordinance, the updated Ordinance would require that light fixtures at cannabis sites are fully shielded, cast downward, and do not result in light spillover onto neighboring properties or the night sky. This section also would require that indoor and mixed light structures be designed so light is not visible from neighboring properties between sunset and sunrise. These requirements, especially the provision to avoid spillover of light to offsite locations, would minimize adverse effects from security lighting on views near cannabis sites.

As discussed in item 1.a, greenhouses and hoop houses can have highly visible light-reflective materials. During daytime hours between sunrise and sunset, the reflection of sunlight off these structures could produce glare that is uncomfortable or distracting to people on neighboring properties or roadways. However, Section 38.12.010 of the updated Ordinance would prohibit the use of glare-producing materials on new, reconstructed, or expanded permanent cannabis structures, such as greenhouses. This standard may be achieved by the use of frosted glass as roofing and upper level walls, in addition to opaque, electronically-controlled curtains that block the glass and prevent any light from escaping between sunset and sunrise. By preventing the spillover of light and the use of glare-producing materials, the impact from light and glare would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the introduction of new sources of light or glare associated with cannabis cultivation, and this impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. However, as discussed above, cannabis cultivation can cause distinct glare impacts in comparison to typical agricultural practices. Greenhouses and hoop houses used for cannabis cultivation can have highly visible light-reflective materials. The updated Ordinance would allow for additional greenhouse and hoop house cultivation in the County, which could produce glare that is uncomfortable or distracting to people on neighboring properties or roadways. The above analysis determines that this impact would be less than significant due to the proposed prohibition on glare-producing materials on cannabis structures.

Significance Level: Less than Significant

2. AGRICULTURE AND FOREST RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Comment:

Updated Ordinance

According to the California Department of Conservation (DOC) Sonoma County Important Farmland Map, Prime Farmland is located in all three agricultural zones: Diverse Agriculture (DA), Land Extensive Agriculture (LEA), and Land Intensive Agriculture (LIA), as well as the Resources and Rural Development (RRD) zone (DOC 2016). Most of the lands designated Prime Farmland are located in the LIA zone due to the presence of prime soil types. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The existing Ordinance adopted by Sonoma County in 2016 and amended in 2018 allowed existing agricultural operations to diversify crop production to include cannabis cultivation in the DA, LEA, and LIA zones. The updated Ordinance would allow commercial cannabis cultivation to be approved as a ministerial permit (no public hearing required) by the Agricultural Commissioner if certain standards are met. The updated Ordinance would require applicants avoid conversion of Important Farmlands, including Prime, Unique and Farmlands of Statewide Importance as mapped by the California Farmland Mapping and Monitoring Program for indoor and mixed light operations in agricultural zones, unless the agricultural production is offset by relocation at a 1:1 ratio. This standard would reduce potential impacts to Important Farmlands to a less than significant level.

As discussed in Section V, Setting, Agricultural land uses in Sonoma County make up approximately 709,124 acres, all outside of the Coastal Zone. Approximately 657,534 of these acres are located on parcels greater than 10 acres in size. The updated Ordinance would maintain an existing requirement of a 10-acre minimum parcel size for cannabis cultivation. In addition, the updated Ordinance would remove an existing one-acre cap on cannabis cultivation per parcel, and instead would allow for up to 10 percent of the parcel to be used for cultivation. Accounting for the proposed percent-based cap on cannabis cultivation, this analysis assumes that the updated Ordinance would allow for cannabis cultivation on up to 10 percent of the 657,534 acres. This would represent a potential maximum of up to 65,753 acres of future commercial cannabis cultivation in unincorporated Sonoma County, if all land covered under the updated Ordinance was converted to cannabis cultivation operations. This would be the potential maximum buildout and it is extremely unlikely that all available land would be put into cannabis cultivation. Other factors such as the County's prohibition on cultivation where slopes exceed 15 percent, setbacks from neighboring uses, and riparian corridor setbacks, would further restrict potential future increases in acreage of cannabis cultivation.

Unlike vineyards, cannabis is an annual crop and would not prevent another agriculture use from occurring on the same site after a growing cycle is complete, thereby reducing potential for outdoor cultivation to remove traditional agricultural uses. All types of cannabis cultivation have the potential for an increase in the number of structures required for ancillary cultivation activities such as storing, drying, and trimming. The updated Ordinance limits the allowed square footage of indoor, greenhouse and mixed light cultivation on agricultural lands because of the reliance on permanent structures. The building coverage for all new structures on parcels up to 20 acres would not be allowed to exceed 43,560 square feet (one acre) under the updated Ordinance. New structures on parcels greater than 20 acres in size would not be allowed to exceed 50 percent of the maximum lot coverage prescribed for the base zone. The updated Ordinance includes the following standards to ensure that structures associated with mixed light and indoor cannabis cultivation would not remove agricultural production on Important Farmlands:

B. Important Farmlands.

- i. A new permanent structure, or the expansion of an existing permanent structure, for or in support of indoor or mixed light cultivation cannot be sited within important farmlands, including prime, unique, and farmlands of statewide importance as designated by the state farmland mapping and monitoring program.
- ii. A new permanent structure, or the expansion of an existing permanent structure, for or in support of indoor or mixed light cultivation cannot remove irrigated agricultural production on a parcel, unless (1) the irrigated agricultural production is offset at another location on the parcel at a 1:1 ratio, and (2) the parcel does not contain important farmlands, as described in subsection B. 1.a., above.
- iii. As used in subsection B. 1.a and B. 1.b, above "new permanent structure," means a permanent structure legally constructed on or after January 1, 2021; an "expanded permanent structure," means an addition or expansion to an existing permanent structure that results in a modification to the building footprint or an expansion of the square footage of the structure; and "irrigated agricultural production," means the land is or has been used for irrigated agricultural production at any point in the four years prior to the date of the permit application.

The Sonoma County General Plan defines "agriculture" as "[t]he production of food, fiber, plant materials, and the raising and maintaining of horses, donkeys, mules, and similar livestock and farm animals." The existing Ordinance considered cannabis uses separately from other agriculture because its classification under the federal Controlled Substances Act may cause it to have characteristics that were distinct from other agriculture. The County has since found that cannabis farms function similarly to other agricultural operations and that it fits within the plain language and intent of the term "agriculture." However, due to the unique characteristics of cannabis operations, under the updated Ordinance provisions applicable to traditional agriculture are expressly not applicable to cannabis cultivation. For instance, cannabis is currently not protected under the "Right to Farm" Ordinance, which protects agricultural operations from being considered a nuisance and provides public disclosure to surrounding residential uses of potential incompatibility impacts such as

noise, odor, or chemical use. Likewise, cannabis uses are currently not a qualifying use for tax benefits under the Uniform Rules for Agricultural Preserves, but would be allowed as a compatible use, pursuant to the companion amendment to the Rules.

Due to the fact that individual cannabis cultivation projects allowed with a zoning permit in agricultural zones would be subject to standards that require avoidance and replacement of Important Farmlands, and the fact that cannabis would be interpreted as a compatible use on agricultural lands, and because the updated Ordinance would limit the number of acres converted to structures and would not convert a significant amount of important farmland to non-agricultural use, impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As such, cannabis cultivation would be considered an agricultural use in areas designated by the General Plan for agricultural land uses. Therefore, the proposed General Plan Amendment would not convert a significant amount of important farmland to non-agricultural use. This impact would be less than significant.

Significance Level: Less than Significant Impact

b) Conflict with existing zoning for agricultural use, or Williamson Act Contract?

Comment:

Updated Ordinance

The updated Ordinance would list cannabis operations as a qualifying/compatible use within the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules). With this amendment cannabis cultivation would be considered a compatible use on Williamson Act contracted land. Additionally, co-locating cannabis cultivation with other agricultural uses is consistent with the County's policies and programs to assist in stabilizing farm incomes to maintain and protect land in agricultural use. Goal AR-8 in the Agricultural Resources Element of the Sonoma County General Plan speaks to the stabilization of farmers' economic situations. Allowing cannabis cultivation would be consistent with this goal as it would allow another option for farm incomes other than subdivision of agricultural parcels for sale, as encouraged by Objective AR-8.3.

Under the updated Ordinance, if a site is under a Land Conservation Act (Williamson Act) contract, the use must comply with the Land Conservation Act contract, an applicable land conservation plan, and the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones, including provisions governing the type and extent of compatible uses, and the California Land Conservation Act, commencing at section 51200 of the California Government Code. In September 2019, SB 527 was signed into law clarifying that cannabis and hemp cultivation are considered compatible uses under land conservation contracts made pursuant to the Williamson Act, thereby making cannabis cultivation presumptively permissible activities under such contracts. The Williamson Act relieves the agricultural parcel owner from paying property tax in exchange for conservation of their property as an agricultural use for a period of 10 years. This would not relieve agricultural parcel owners from paying cannabis taxes to the County as required by law. The proposed allowances for cannabis operations in agricultural zones are limited in size and scale such that cannabis would not replace other agricultural operations in the County. The updated Ordinance includes a standard to avoid conversion of Important Farmlands to indoor or greenhouse uses as these require permanent structures. Additionally, the updated Ordinance would permit cannabis cultivation uses consistent with Sonoma County General Plan Policy AR-4a, which requires that the primary use of the land remain in agricultural or open space use:

Policy AR-4a: *The primary use of any parcel within the three agricultural land use categories shall be agricultural production and related processing, support services, and visitor serving uses.*

Residential uses in these areas shall recognize that the primary use of the land may create traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals.

Therefore, the updated Ordinance would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As such, cannabis cultivation would be considered a compatible use in areas designated by the General Plan for agricultural land uses. Additionally, as described above, SB 527 clarified that cannabis and hemp cultivation are considered compatible uses under land conservation contracts made pursuant to the Williamson Act, thereby making cannabis cultivation presumptively permissible activities under such contracts. Therefore, the proposed General Plan Amendment would not conflict with existing zoning for agricultural use or a Williamson Act contract. There would be no impact.

Significance Level: No Impact

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**
- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

Comment:

Updated Ordinance

Timberland Production areas are predominantly located within the County's TP (Timberland Production) and RRD (Resources and Rural Development) Zoning Districts. Timberland is defined as land that is available for and capable of growing commercial timber. Forest land areas are predominantly located within the TP and RRD Zoning Districts. The updated Ordinance would exclude all cannabis uses within the TP zone. Additionally, pursuant to Section 38.06.050, Timberland and Farmland Protection, of the updated Ordinance cannabis cultivation operations would only be permitted in a non-forested area that was in existence prior to December 20, 2016. Under this section, no tree removal or timber conversion would be allowed unless a use permit is obtained. Therefore, impacts to lands zoned as forest land or timberland would not occur. There would be no impact.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As such, cannabis cultivation would be considered an agricultural use in areas designated by the General Plan for agricultural land uses. The proposed General Plan Amendment would continue to only permit cannabis cultivation operations in a non-forested area that was in existence prior to December 20, 2016. Therefore, impacts to lands containing forested land or zoned as forest land or timberland would not occur. There would be no impact.

Significance Level: No Impact

- e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?**

Comment:

Updated Ordinance

As described under criteria c and d, cannabis cultivation would only be permitted in non-forested areas and no tree removal or timber conversion would be allowed unless a use permit is obtained. Therefore, no conversion of forest land to non-forest uses would occur by right.

The updated Ordinance would continue to allow existing agricultural operations to diversify crop production to include cannabis cultivation. As noted under criterion a, the updated Ordinance could allow a potential maximum of up to 65,753 acres of future commercial cannabis cultivation in unincorporated Sonoma County if all land covered under the updated Ordinance was converted to cannabis cultivation operations. This would be the potential maximum buildout and it is extremely unlikely that all available land would be put into cannabis cultivation. To reduce impacts resulting from the conversion of existing agricultural lands to cultivation uses, the updated Ordinance includes a standard requiring that any new structures proposed for indoor cultivation operations not be placed on Important Farmlands, including Prime, Unique and Farmlands of Statewide Importance under any circumstances. Additionally, the County has determined that cannabis farms function similarly to other agricultural operations and would be allowed as a compatible use, pursuant to the companion amendment to the Uniform Rules for Agricultural Preserves.

New cultivation sites would be allowed on lands in the four agricultural and resource district designated areas, where agricultural uses are already permitted. Cannabis cultivation generally includes cultivation practices compatible with nearby and adjacent agricultural uses such as plowing, mowing, harvesting and operating farm equipment. The updated Ordinance would not permit uses, such as residential development, that may result in the curtailment of agricultural production in the future. Cannabis cultivation would not preclude other agricultural production from occurring adjacent to the site and would result in the land being unable to return to other agricultural uses in the future. Due to the fact that individual cannabis cultivation projects allowed with a zoning permit in agricultural zones would be subject to standards that require avoidance and replacement of Important Farmlands, and the fact that cannabis would be interpreted as a compatible use on agricultural lands, the updated Ordinance would limit the number of acres converted to structures and would not convert a significant amount of important farmland to non-agricultural use. Therefore, impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As such, cannabis cultivation would be considered an agricultural use in areas designated by the General Plan for agricultural land uses. Therefore, the proposed General Plan Amendment would not convert a significant amount of important farmland to non-agricultural use. This impact would be less than significant.

Significance Level: Less than Significant Impact

3. AIR QUALITY:

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?**

Comment:

Updated Ordinance

The updated Ordinance would apply to unincorporated Sonoma County outside the Coastal Zone, an area which is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and the Northern Sonoma County Air Pollution Control District (NSCAPCD). The BAAQMD's jurisdiction is currently designated as a nonattainment area for state and federal ozone standards, the state standard for large particulate matter (PM₁₀), and the state and federal standard for fine particulate matter (PM_{2.5}) (BAAQMD 2017a). The BAAQMD has adopted an Ozone Attainment Plan and a Clean Air Plan in compliance with Federal and State Clean Air Acts. These plans include measures to achieve compliance with both ozone standards. The plans deal primarily with emissions of ozone precursors: nitrogen oxides (NO_x) and volatile organic compounds, also referred to as Reactive Organic Gases (ROGs). The NSCAPCD does not have an adopted air quality plan because it is in attainment for all federal and state criteria pollutants, although it occasionally exceeds state standards for PM₁₀.

As discussed in item 3.b, the construction and operation of new cannabis uses allowed under the updated Ordinance would generate emissions of particulates and ozone precursors, which are regulated by BAAQMD plans. Table 3-1 in the BAAQMD's 2017 CEQA Guidelines provides screening criteria for emissions of particulates and ozone precursors from various land uses (BAAQMD 2017b). Agricultural land uses such as cannabis cultivation are not listed as a land use type in the BAAQMD screening criteria. Cannabis cultivation is similar to cut flower operations in their use of greenhouses. A typical cut flower operation in Sonoma County may involve the use of diesel and unleaded gasoline to operate vehicles, and natural gas to run boilers that heat greenhouses (Smith 2020). The combustion of these fossil fuels generates NO_x emissions, which are a precursor to the formation of ozone. However, because cannabis cultivation is not an intensive urban land use, it is anticipated that the long-term operation of cannabis cultivation sites would not generate emissions exceeding BAAQMD thresholds.

Grading activity for additional cannabis cultivation, especially on large agricultural sites, could generate substantial emissions of particulate matter from fugitive dust, as detailed in item 3.b. To address this potential air quality impact, Mitigation Measure AIR-1 would require implementation of dust control measures during construction. (Refer to item 3.b for further analysis of criteria air pollutant emissions and mitigation measures.)

To be consistent with an AQMP, a project also must conform to the local General Plan and must not result in or contribute to an exceedance of the local jurisdiction's forecasted future population. A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. Population growth would lead to increased vehicle use, energy consumption, and associated air pollutant emissions. As discussed in item 14.a, it is not anticipated that the updated Ordinance would result in substantial population growth.

Mitigation would be required to ensure that cannabis projects do not generate excessive emissions of pollutants for which the BAAQMD is nonattainment and has adopted air quality plans. Therefore, this impact would be less than significant with mitigation incorporated.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate air pollutant emissions, and it would not generate population, housing, or employment growth that could exceed forecasts used in an AQMP. The General Plan amendment would have a less than significant impact related to consistency with an AQMP.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Implement Mitigation Measure AIR-1 Construction Dust and Air Quality Control (refer to item 3.b)

Mitigation Monitoring:

See Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control

- b) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?**

Comment:

Updated Ordinance

Air pollutant emissions from individual projects can contribute to cumulative air pollution in a regional air basin. If a project has a considerable contribution to regional air pollution, this would be a significant impact on air quality. The updated Ordinance would affect emissions in the jurisdictions of two districts that manage regional air pollution: the BAAQMD and NSCAPCD. The BAAQMD is currently a nonattainment area for state and federal ozone standards, the state standard for large particulate matter (PM₁₀), and the state and federal standard for fine particulate matter (PM_{2.5}) (BAAQMD 2017a). The NSCAPCD is in attainment for criteria pollutants under applicable state and federal ambient air quality standards; however, PM₁₀ is a criteria pollutant that is closely monitored in the NSCAPCD. Readings in the district have exceeded state standards on several occasions in the last few years. The high PM₁₀ readings occurred in the winter and are attributed to the seasonal use of wood burning stoves.

Relative to the existing Ordinance, the updated Ordinance would allow for additional cannabis uses in the jurisdictions of the BAAQMD and NSCAPCD. The construction and operation of new cannabis uses would generate emissions of ozone precursors and particulate matter. Motor vehicle trips associated with cannabis projects would generate emissions of NO_x, an ozone precursor. Ground disturbance during construction causes fugitive dust, including emissions of particulate matter. Long-term operation of cannabis projects would not generate substantial dust emissions because all surfaces would be paved, compacted gravel, landscaped, or otherwise treated to stabilize bare soils.

As discussed in item 3.a, Table 3-1 in the BAAQMD's 2017 CEQA Guidelines provides screening criteria for criterial air pollutants and precursors from various land uses (BAAQMD 2017b). These screening criteria indicate whether a project could considerably contribute to regional air pollution. Agricultural land uses such as cannabis cultivation are not listed as a land use type in the BAAQMD screening criteria. Cannabis cultivation is similar to cut flower operations in their use of greenhouses. A typical cut flower operation in Sonoma County may involve the use of diesel and unleaded gasoline to operate vehicles, and natural gas to run boilers that heat greenhouses (Smith 2020). The combustion of these fossil fuels generates NO_x emissions, which are a precursor to the formation of ozone. However, because cannabis cultivation is not an intensive urban land use, it is anticipated that the long-term operation of cannabis cultivation sites would not generate emissions exceeding BAAQMD thresholds.

During the construction of cannabis projects, especially on large agricultural sites, ground disturbance and the use of construction vehicles on unpaved surfaces could cause a significant short-term increase in emissions of dust emissions, including PM₁₀ and PM_{2.5}. To reduce dust emissions, the updated Ordinance would require that applicants for cannabis cultivation sites "submit a dust control plan for the site that incorporates the department's best management practices for dust control, and includes the use of dust control measure on access roads and during all ground-disturbing activities." However, this provision does not specify effective, feasible measures that would substantially control dust emissions. Therefore, Mitigation Measure AIR-1 would be required to apply BAAQMD-recommended best management practices to reduce dust emissions to the extent feasible.

With implementation of Mitigation Measure AIR-1, the updated Ordinance would not result in a

considerable contribution to nonattainment of criteria air pollution standards in regional air basins. Therefore, this impact would be less than significant with mitigation incorporated.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate air pollutant emissions. This impact would be less than significant.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure AIR-1 Construction Dust and Air Quality Control:

In the updated Ordinance, Section 38.12.110 shall be amended as follows to enhance screening requirements:

“A. Dust Control. The construction and operation of all cannabis cultivation projects shall implement the following dust and air quality control measures:

a. A Construction Coordinator shall be designated by the project applicant, and a sign shall be posted on the site including the Coordinator’s 24-hour phone number for public contact regarding dust, trackout, and air quality complaints. The Coordinator shall respond and take corrective action within 48 hours. The Coordinator shall report all complaints and their resolutions to Permit Sonoma staff.

b. Water or alternative dust control method shall be sprayed to control dust on construction areas, soil stockpiles, and staging areas during construction as directed by the County.

c. Trucks hauling soil, sand, and other loose materials over public roads shall cover the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions.

d. Vehicle speeds on unpaved areas shall be limited to 15 miles per hour.

e. Final surfacing (i.e., pavement or concrete, gravel, landscaping) shall be completed as soon as possible after earthwork is finished, unless seeding or soil binders are used.

f. Idling time of diesel-powered construction equipment shall be limited to five minutes. Signs shall be posted reminding workers of this idling restriction at all access points and equipment staging areas during construction of the proposed project.

g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications and shall have a CARB-certified visible emissions evaluator check equipment prior to use at the site.

h. Trackout shall not be allowed at any active exit from the project site onto an adjacent paved public roadway or shoulder of a paved public roadway that exceeds cumulative 25 linear feet and creates fugitive dust visible emissions without cleaning up such trackout within 4 hours of when the Construction Coordinator identifies such excessive trackout, and shall not allow more than 1 quart of trackout to remain on the adjacent paved public roadway or the paved shoulder of the paved public roadway at the end of any workday.

i. Visible emissions of fugitive dust shall not be allowed during cleanup of any trackout that exceeds 20 percent opacity as determined by the Environmental Protection Agency in *Method 203B - Opacity Determination for Time-Exception Regulations* (August 2017).”

Mitigation Monitoring:

Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control: Permit Sonoma staff shall verify that the AIR-1 measures are included on all site alteration, grading, building or improvement plans for cannabis cultivation projects prior to issuance of grading and/or building permits. The applicant shall submit documentation to Permit Sonoma staff that a Construction Coordinator has been designated and that appropriate signage has been posted including the Coordinator's phone number. Documentation may include photographic evidence or a site inspection, at the discretion of Permit Sonoma staff.

c) Expose sensitive receptors to substantial pollutant concentrations?Comment:**Updated Ordinance**

Sensitive receptors are land uses where sensitive populations (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. In Sonoma County these land uses include residences, schools, retirement homes, convalescent homes, hospitals, and medical clinics. The updated Ordinance would allow for additional cannabis cultivation in the County, including on sites in agricultural and resource zoning districts that are adjacent to properties with sensitive receptors. As discussed in item 3.b, cannabis projects would generate criteria air pollutants including NO_x and particulate matter, but implementation of Mitigation Measure AIR-1 would ensure that criteria air pollutant emissions do not exceed the BAAQMD's thresholds to protect the public from regional air pollution.

Setback standards in the updated Ordinance also would minimize the exposure of sensitive receptors to criteria air pollutants generated by the construction and operation of cannabis uses. Outdoor cultivation and hoop houses would be setback at least 300 feet from neighboring residential structures on offsite properties. For indoor cannabis cultivation and greenhouses, the updated Ordinance would require consistency with setbacks in the applicable base zone and combining zone, as well as a setback of at least 600 feet from schools.

With implementation of the setback standards and Mitigation Measure AIR-1 to minimize emissions of criteria air pollutants, the updated Ordinance would have a less than significant impact on sensitive receptors.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate air pollutant emissions near sensitive receptors. This impact would be less than significant.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Implement Mitigation Measure AIR-1 Construction Dust and Air Quality Control (refer to item 3.b)

Mitigation Monitoring:

See Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

Comment:

Updated Ordinance

Construction Odors

The updated Ordinance would allow for additional construction of cannabis uses. Emissions from construction equipment could potentially result in minor odors. However, construction activities would be temporary and would cease upon the completion of construction. They would not result in the creation of objectionable odors affecting a substantial number of people. Therefore, the updated Ordinance would have a less than significant impact related to odors from construction activities.

Greenhouse, Indoor Cultivation, and Indoor Processing Odors

The BAAQMD's 2017 CEQA Guidelines identifies the following land uses as examples of odor-generating uses: wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants (BAAQMD 2017b). In addition to confined animal facilities, it is common for a variety of agricultural operations to generate odors that may be perceived offsite. Decomposing manure is the major source of agricultural odors (University of Massachusetts Amherst 2020), which arise from the storage of manure and the application of manure as fertilizer on fields. The proposed project would involve redefining the County General Plan's definition of "agriculture to include cannabis cultivation, recognizing that such cultivation has many similarities with typical agricultural activities. Odors may be expected near any agricultural use, including cannabis cultivation. However, it is known that cannabis cultivation and processing can generate distinctive odors that adversely affect people. Odors from cannabis cultivation sites have been described as reminiscent of skunks, rotting lemons, and sulfur (Fuller 2018). The potential for cannabis odors to be perceived and considered objectionable would depend on the size of the cultivation site, the variable sensitivity of people, the strain of cannabis being cultivated/processed, the presence of nearby vegetation, and topographic and atmospheric conditions (Humboldt County 2018).

To minimize the spread of odors outside cannabis structures, the updated Ordinance includes the following standard:

A permanent structure that may contain cannabis must be equipped with odor control filtration and ventilation system(s) to control odors, humidity, and mold. Odor shall be controlled in a way that prevents cannabis odor from being detected off of the parcel containing the cannabis site. An applicant shall submit with the application an odor control plan demonstrating how the requirements of this subsection will be met.

This standard would ensure the installation of odor control filtration and ventilation systems in cannabis greenhouses, indoor cultivation, and processing structures. For example, cannabis operators can install carbon filters with activated charcoal that binds to odor molecules, effectively scrubbing them from air emitted by structures (The Cannifornian 2018). The proposed odor control standard also sets a performance standard of no detectable cannabis odor occurring off the parcel containing the permanent cannabis structure. However, it does not include requirements to inspect odor control systems and ensure their effectiveness after installation. Mitigation Measure AIR-2 would require daily inspections to verify that air filtration equipment continues to function properly. Implementation of Mitigation Measure AIR-2 would ensure that the exposure of sensitive receptors to odors from structures is reduced to a less than significant level.

Outdoor Cultivation Odors

The updated Ordinance would allow for a greater acreage of outdoor cannabis cultivation, which

generates odors that can adversely affect people. However, several factors would reduce the exposure of sensitive receptors to odors from outdoor cultivation. Outdoor cannabis cultivation generates the strongest odors in September and October, during the last four to eight weeks of the growing season prior to harvest. This would restrict the timing of the most adverse cannabis odors to no more than two months per year. The distribution of sensitive receptors in agricultural and resource zones also would reduce their exposure to cannabis odors. These zones typically have large parcel sizes and few, dispersed sensitive receptors. Therefore, most outdoor cannabis cultivation would occur in areas with a limited number of nearby sensitive receptors such as residences, and the odors would dilute across space before reaching sensitive receptors.

Where cannabis cultivation occurs near sensitive receptors, setback requirements in the updated Ordinance would minimize its proximity. Section 38.06.030 would require that outdoor and hoop house cultivation areas be sited at least 300 feet from neighboring residential structures on offsite properties and at least 1,000 feet from parcels with K-12 schools, public parks, Class 1 Bikeways, day care centers, and alcohol and drug treatment facilities. Cannabis odors would dissipate with increasing distance from the source.

Vegetative screening would further buffer sensitive receptors from cannabis odors. At all outdoor cultivation sites, the updated Ordinance would require the use of fire resistant vegetation to screen views. While odor plumes generally travel along the ground in the direction of the prevailing winds, tree and shrub buffers have been found to deflect odor plumes from poultry operations above the vegetation layer where they are diffused into the atmosphere (USDA NRCS 2007). Vegetative buffers are most effective when parcels are large (at least 10 acres) and land uses are far apart, maximizing odor dissipation with distance between uses.

Despite the factors discussed above, the updated Ordinance could allow new cannabis uses near sensitive receptors, especially in areas where prevailing winds carry cannabis odors to downwind residences and other land uses. Odor plumes can be transported on the wind beyond neighboring properties. Cannabis cultivation sites could potentially generate odors that adversely affect a substantial number of people. Therefore, a requirement has been included in the updated ordinance to require an odor control filtration and ventilation system to control odors, humidity, and mold in permanent cannabis cultivation structures. However, Mitigation Measure AIR 2 has been added to ensure daily inspections of the odor control systems.

In the case that odors are not adequately diffused and verified odor complaints are received, Mitigation Measure AIR-3 would be required to address odor problems on a case-by-case basis. Where the County finds that a cannabis operation is having a substantial adverse effect on sensitive receptors, the County would review additional measures to reduce outdoor odor generation, including use of engineered solutions such as Vapor-Phase Systems (Fog Systems). Fog systems mix water with an odor-neutralizing chemical, which remains in the air after the water evaporates. With implementation of Mitigation Measure AIR-3, the impact of cannabis odors would be reduced to a less than significant level.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate odors near sensitive receptors, and this impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. It is normal for agricultural land uses, especially animal feeding operations and farms that apply manure as a fertilizer, to generate odors. As discussed above, however, cannabis cultivation can generate particularly strong odors that adversely affect people, and the updated Ordinance would allow for additional odor-generating cannabis cultivation. Therefore, Mitigation Measure AIR-3 would be required to address odor impacts on a case-by-case basis. The above analysis determines that this impact would be less than significant

after incorporating mitigation.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Implement Mitigation Measure AIR-1 Construction Dust and Air Quality Control.

Mitigation Measure AIR-2 Operational Odor Control for Structures:

In the updated Ordinance, Section 38.12.110 shall be amended as follows to enhance odor control for cannabis structures:

“B. Daily inspections shall be performed by the on-site manager of cannabis structures. Inspections shall include verifying that all filtration equipment is functioning properly, checking that filters have been replaced on schedule, and shall include a walking tour through the interior and around the exterior of each cannabis-containing facility to document any noticeable odor (indoor cultivation/greenhouse, and both processing buildings).”

Mitigation Measure AIR-3 Operational Odor Control for Outdoor Cultivation:

The Department of Agriculture/Weights & Measures (Agricultural Commissioner) shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites to address odor complaints:

“In the event that at least three verified odor complaints about an outdoor cannabis cultivation site are received, Permit Sonoma staff shall investigate to determine if the site is creating objectionable odors affecting at least several people. In this case, Permit Sonoma staff shall refer the matter to the Board of Zoning Adjustments for review of additional measures to reduce outdoor odor generation, including use of engineered solutions such as Vapor-Phase Systems (Fog Systems).”

Mitigation Monitoring

See Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control.

Mitigation Monitoring AIR-2 Operational Odor Control for Structures:

Permit Sonoma staff shall ensure that the odor control filtration and ventilation system(s) are included on all building and/or improvement plans, prior to issuance of building permits.

Odor monitoring reports shall be submitted annually to the County by January 31 of each year. Daily logs shall be made available to Permit Sonoma staff upon request throughout the year in response to any odor concerns that may arise.

Mitigation Monitoring AIR-3 Operational Odor Control for Outdoor Cultivation:

Permit Sonoma staff shall perform a site inspection to verify any odor complaint received and shall evaluate odor complaint history, whether the outdoor cultivation operation is creating objectionable odors affecting at least several people. If this is the case, Permit Sonoma staff shall require that the project go back to the Board of Zoning Adjustments for review of additional measures to reduce outdoor odor generation, including use of engineered solutions such as Vapor-Phase Systems (Fog Systems).

4. BIOLOGICAL RESOURCES:

As described in the Open Space and Resource Conservation Element for the current Sonoma County General Plan 2020, Sonoma County’s varied natural landscapes range from the marine environments of the coastal zone to the extensive forest woodlands and grasslands of the Coast Range mountains and foothills. Although Sonoma County includes areas of the coastal zone, this region is not covered by the updated Ordinance and is therefore not included in this analysis. Sonoma County also supports several

types of wetland and aquatic habitat including the vernal pools and freshwater marshes of the Santa Rosa Plain and other valley floors to the extensive marshlands along San Pablo Bay (Sonoma County 2016a). Areas of natural vegetation support many native plant and animal species and encompass habitat for special status species, wetlands, and sensitive natural communities. Wetlands and associated riparian areas often function as habitat for special-status species and may act as important wildlife movement corridors.

Much of Sonoma County's natural landscape has been altered due to logging forests, conversion of natural areas to urban and agricultural uses, introduction of non-native species, and creation of barriers as a result of development, roadway construction, installation of fencing, etc. These changes in the natural landscape have forced wildlife into smaller areas and marginal habitat and limited the dispersal and movement of native plants and animals. Still, Sonoma County is home to many wildlife species, including a large number of rare, threatened, and endangered species. A review of records from the California Department of Wildlife (CDFW) *California Natural Diversity Database* (CNDDDB) and the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants* (queried in April 2020) identified 53 special-status animal species and 130 special-status plant species in Sonoma County, including 50 federal and/or state listed species. A search of the U.S. Fish and Wildlife Service's (USFWS) *Information for Planning and Consultation* database showed that critical habitat for Baker's larkspur (*Delphinium bakeri*), yellow larkspur (*Delphinium luteum*), tidewater goby (*Eucyclogobius newberryi*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), marbled murrelet (*Brachyramphus marmoratus*), and northern spotted owl (*Strix occidentalis caurina*), is located within Sonoma County (USFWS 2020a).

Birds protected under the California Fish and Game Code (CFG) nest in a wide range of habitats including previously disturbed and ruderal areas (e.g., medians and road shoulders) and within areas of maintained ornamental vegetation (i.e., lawns, gardens, parks, and trails). Wetlands and associated riparian areas often function as habitat for special-status species and may act as important wildlife movement corridors.

Approach to Impact Analysis

As a programmatic evaluation, this section considers the potential for direct and indirect impacts to sensitive biological resources that could occur at the project level if cannabis projects facilitated by the updated Ordinance are constructed or proposed in specific vegetation communities or habitats. A precise, project-level analysis of the specific impacts to biological resources that may result from any individual proposed project is beyond the scope of this programmatic analysis. The following impact analyses provide an accounting of the existing biological conditions known to exist within the County, and based on those existing conditions, assesses direct and indirect impacts that could result from the development of individual cannabis projects under the updated Ordinance. Although the updated Ordinance is a planning document and thus would not in itself cause physical environmental changes, adoption of the updated Ordinance would facilitate physical impacts resulting from the development of future cannabis projects.

Many cannabis projects facilitated by the updated Ordinance would be located within the limits of existing agricultural land, or other previously disturbed areas and would be unlikely to affect sensitive biological resources; however, the conversion of existing agricultural lands to cannabis cultivation near biological resources or the construction of new structures for cannabis uses could result in the loss of vegetation or habitat due to ground disturbance. This could directly affect special-status species or sensitive biological resources.

Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Regulatory Framework

Special-Status Species

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (The Service) Birds of Conservation Concern, and CDFW special-status invertebrates, are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Plant species on California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Bat species designated as “High Priority” by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of the CEQA Guidelines. Species designated “High Priority” are defined as “imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 *et seq.*) was enacted to provide a means to identify and protect endangered and threatened species. Under Section 9 of the ESA, it is unlawful to take any listed species. “Take” is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting a listed species. “Harass” is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. “Harm” is defined as an act which actually kills or injures fish or wildlife and may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering. Actions that may result in “take” of a federal-listed species are subject to The Service or National Marine Fisheries Service (NOAA Fisheries) permit issuance and monitoring. Section 7 of ESA requires federal agencies to ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat for such species. Any action authorized, funded, or carried out by a federal agency or designated proxy (e.g., Army Corps of Engineers) which has potential to affect listed species requires consultation with The Service or NOAA Fisheries under Section 7 of the ESA.

Critical Habitat

Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species’ recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species, but which are needed for the species’ recovery are protected by the prohibition against adverse modification of critical habitat.

Essential Fish Habitat

Essential Fish Habitat (EFH) is regulated through the NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of Essential Fish Habitat is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines Essential Fish Habitat as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 USC 1802(10)]. NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" Essential Fish Habitat can include the water column, certain bottom types such as sandy or rocky bottoms, vegetation such as eelgrass or kelp, or structurally complex coral or oyster reefs. Under regulatory guidelines issued by NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NMFS (50 CFR 600.920).

Comment:

Updated Ordinance

The existing Ordinance allows commercial cannabis cultivation, including outdoor, indoor, and mixed light cultivation and associated drying, curing, grading, and trimming facilities. The existing Ordinance allows commercial cannabis cultivation with a zoning permit up to 10,000 square feet outdoor, 2,500 square feet in mixed light, and 500 square feet indoor, subject to the Ordinance's Cultivation Standards. Cultivation beyond these amounts and other cannabis support uses (including nurseries, manufacturing, laboratories, distribution, transportation, and dispensaries) are currently subject to a discretionary use permit subject to CEQA review on a case by case basis. The purpose of the updated Ordinance is to change cultivation permitting and design review from discretionary to ministerial approval with certain limitations, allow additional types of cannabis uses (i.e. processing and distribution) and allow a larger amount of cannabis cultivation area per parcel.

Cannabis cultivation projects facilitated under the updated Ordinance would be located within existing agricultural lands or existing structures. If all construction work, staging, parking, and associated activity is fully contained within previously developed areas, the projects would be unlikely to modify or otherwise impact sensitive species habitat and those projects would, therefore, be unlikely to result in significant impacts to federal or state listed species or other special-status species. However, migratory birds protected under the CFGC can be expected to nest within and adjacent to a wide range of disturbed areas, including existing agricultural fields, road shoulders, ornamental vegetation, and ruderal areas. Construction noise and activity in previously disturbed areas could result in direct impacts to special-status species in adjacent natural habitat.

Future cannabis cultivation or construction of associated structures in previously undisturbed areas would have the potential to temporarily or permanently disturb or remove natural habitat, which could directly impact special-status species. Unregulated cannabis cultivation has been associated with impacts to biological resources such as special-status species and their habitats. Construction of associated structures and operation activities of cannabis cultivation could result in potentially significant impacts to federal and state listed species under all circumstances, while impacts to non-listed species may be considered significant under CEQA if they result in reduced viability of the survival of a local or regional population. Potentially significant impacts on special-status wildlife species may include:

- Increased mortality to special-status species caused by increased activity on newly cultivated lands;
- Direct mortality from the collapse of underground burrows, resulting from soil compaction;
- Direct mortality resulting from the movement of equipment and vehicles through an individual cannabis project area;
- Direct mortality resulting from removal of trees with active bird nests;

- Direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- Direct mortality resulting from fill of wetlands features;
- Loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- Loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- Loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- Abandoned eggs or young and subsequent nest failure for special-status nesting birds, including raptors, and other non-special-status migratory birds resulting from construction-related noises;
- Loss or disturbance of rookeries and other colonial nests;
- Loss of migration corridors resulting from the construction of permanent structures or features; and
- Other currently unidentified project-related activity that could impact special-status species.

Therefore, future cannabis projects facilitated by a ministerial permit in the updated Ordinance could result in direct and indirect effects on sensitive biological resources including special-status species. However, the updated Ordinance provides a pathway for cannabis operations to reduce potential impacts to biological resources. To reduce impacts to special status species and their habitat, cultivation sites would be required to adhere to the following standards:

A. Habitat and Special Status Species

1. *An application under this chapter shall include a biotic resource assessment prepared by a qualified biologist that demonstrates that the cannabis cultivation area and related structures and development will not impact sensitive or special status species habitat; and*
2. *If the cannabis cultivation area and related structures and development are located within a designated critical habitat area, then one of the following criteria must be met:*
 - i. *The biotic assessment concludes that “take” of a listed species within the meaning of the federal and California Endangered Species Acts is not reasonably foreseeable; or*
 - ii. *Applicant obtains all appropriate permits from the applicable state and federal agencies with jurisdiction over the listed species.*
3. *A Use Permit will be required if the qualified biologist in the biotic resources assessment required by this chapter recommends mitigation measures.*

These standards would require that future cannabis operations assess, discover, and avoid/mitigate impacts on sensitive habitats as well as apply for the appropriate permits to operate within critical habitat. Therefore, the updated Ordinance would have a less than significant impact on special-status species and their habitat.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in direct or indirect effects on sensitive biological resources including special-status species. Additionally, the General Plan amendment would not affect requirements in the existing and updated ordinance for cannabis projects to assess, discover, and avoid/mitigate impacts on sensitive habitats and special-status species. This impact would be less than significant.

Significance Level: Less than Significant Impact

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Comment:

Updated Ordinance

Naturally occurring plant communities in California are primarily identified in the *List of Vegetation Alliances and Associations (Natural Communities List)* (CDFW 2019). This document provides comprehensive lists of officially recognized plant communities occurring in Sonoma County and the State of California. In this document, each plant community is assigned a conservation status rank (also known as "Rare Rank"), which is used to determine the sensitivity of the plant community. Plant communities with global or state status ranks of G1 through G3, or S1 through S3, respectively, are considered sensitive, and are referred to as "natural communities of special concern." Plant communities are classified based on plant species composition and abundance, as well as the underlying abiotic conditions of the stand, such as slope, aspect, or soil type.

Outside of the coastal zone, Sonoma County supports a combination of native grasslands, oak woodlands, riparian communities, and wetlands such as vernal pools and freshwater marshes. The County as a whole has the potential to support eight natural communities of special concern: Coastal and Valley Freshwater Marsh, Coastal Brackish Marsh, Coastal Terrace Prairie, Mendocino Pygmy Cypress Forest, Northern Coastal Salt Marsh, Northern Hardpan Vernal Pool, Northern Vernal Pool, and Valley Needle Grassland (CDFW 2020). These community types are spread throughout the County, with the majority of them along the coast, at the southern reaches of the County along the San Pablo Bay or in the Santa Rosa Plain. The Coastal Terrace Prairie and Mendocino Pygmy Cypress Forest communities only occur in the coastal zone in Sonoma County. The updated Ordinance would not apply to the coastal zone, so these communities would not be affected.

Future cannabis cultivation projects would be restricted to the LIA, LEA, DA, and RRD zones within the unincorporated area of Sonoma County. These zones are dispersed throughout the County and overlap with several of identified sensitive natural communities; therefore, future cannabis projects could result in impacts to sensitive natural communities. However, the updated Ordinance includes a standard that requires development of cannabis cultivation and related structures to be located only outside the Biotic Habitat Combining Zone, pursuant to Section 26-66, of Chapter 26 of the Sonoma County Code. With adherence to this standard, and those described under criterion a, impacts to sensitive natural communities would be less than significant.

Riparian habitat occurs along several rivers and creeks in the region and may be impacted by cannabis operations, especially with cultivation near riparian resources (USFWS 2020b). Riparian habitat associated with Waters of the State falls under the jurisdiction of CDFW as discussed below under criterion c. Individual cannabis projects could potentially result in construction work within jurisdictional limits including cut and fill below the top of delineated banks, removal, or modification to wetlands, or trimming and clearing of riparian vegetation. However, the updated Ordinance would require cultivation sites to adhere to the following standards to reduce impacts to riparian habitat.

B. Riparian Corridor Setbacks. *Cannabis cultivation and related structures and development must comply with all provisions of the Riparian Corridor combining zone district, pursuant to Section 26-65, of Chapter 26 of the Sonoma County Code, including setback requirements.*

These standards would require that future cannabis cultivation sites be located outside areas designated by the County as riparian or sensitive habitat and would require a setback from riparian corridors. Sonoma County Code Section 26-64-040 prohibits agricultural cultivation and associated activities within 100 feet of the top of the higher bank in the 200-foot riparian corridor for the Russian River; 50 feet from the top of the higher bank in the 100-foot riparian corridors designated in the General Plan and upland areas of the 50-foot riparian corridors; or 25 feet from the top of the higher bank in all other riparian corridors. With implementation of these standards as well as the standards

listed above under criterion a to protect special-status species and their habitat, and adherence to existing County Code requirements for riparian setbacks, the updated Ordinance would have a less than significant impact to sensitive natural communities and riparian habitat.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in impacts to sensitive natural communities or riparian habitat. This impact would be less than significant.

Significance Level: Less than Significant Impact

- c) **Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Comment:

Updated Ordinance

Individual future cannabis projects may be located in or adjacent to wetlands and several creeks, canals, and drainages. Wetlands are transitional areas between aquatic and terrestrial habitats and include marshes, vernal pools, seeps, springs, and portions of riparian corridors with wetland vegetation. Wetlands are recognized for their high fish and wildlife habitat values, occurrences of unique plant and animal species, and importance in water recharge and filtration. Wetlands meeting certain criteria are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), USFWS, CDFW, or applicable Regional Water Quality Control Boards (RWQCB).

Known wetland areas have been mapped as part of the USFWS National Wetlands Inventory and within the Sonoma County General Plan Open Space and Resource Conservation Element maps, which are also designated with the (BR) Biotic Resource zoning district (Sonoma County 2016a). As discussed above in criterion a, the updated Ordinance would require each cannabis operation to prepare a biotic assessment at the time of application. This biotic assessment would identify potential wetlands in advance of development and cultivation being allowed and provide measures to avoid impacts. The updated Ordinance would also require that each individual cannabis project adhere to the following standard to avoid wetlands:

D. Wetland Setbacks. *Outdoor and hoop house canopy must comply with the wetlands setbacks in Section 36-16-120, of Chapter 36, of the Sonoma County Code. All other development must comply with the wetlands setbacks in Section 11-14-110, of Chapter 11, of the Sonoma County Code.*

In addition, the updated Ordinance would not be in effect within the Coastal Zone; therefore, there would be no impact to coastal wetlands. Cannabis cultivation uses are not listed as an allowed use and are therefore not permitted within the Coastal Zone. Given the existing regulations and the updated Ordinance standards, the impact to state or federally protected wetlands, marshes, vernal pools, or coastal areas would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in impacts to state or federally protected wetlands, marshes, vernal pools, or coastal areas. This impact would be less than significant.

Significance Level: Less than Significant Impact

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Comment:

Updated Ordinance

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

Wildlife movement corridors can be both large and small in scale. Regionally, Sonoma County has two primary wildlife movement corridors identified as Essential Connectivity Areas (ECAs) as mapped in the report *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer et al. 2010). ECAs represent principle connections between Natural Landscape Blocks. ECAs are regions in which land conservation and management actions should be prioritized to maintain and enhance ecological connectivity. ECAs are mapped based on coarse ecological condition indicators, rather than the needs of particular species and thus serve the majority of species in each region. One ECA generally runs north-south and connects habitat in the Coast Range mountains in the north to the coastal region in the south. The other is located at the southern edge of Sonoma County along San Pablo Bay and connects to habitat in Napa County at the Blue Ridge-Berryessa Natural Area.

Sonoma County supports a diversity of wildlife and has several creek channels that tend to serve as additional smaller scale movement corridors for both terrestrial and aquatic species throughout the county. Future cannabis projects are not anticipated to affect wildlife movement in previously disturbed or agriculturally developed areas. Although some cannabis operations may be near riparian corridors and waterways, the standards mentioned above under criterion b and c would require that these resources be avoided, and a setback maintained to buffer cultivation activities. Adverse effects on the movement of terrestrial species would be temporary and limited to specific activities including installation of temporary fencing, night lighting, construction noise, construction of structures associated with cannabis operations, and the presence of construction personnel during working hours. Therefore, the updated Ordinance is not expected to result in significant changes to the genetic connectivity among local populations of wildlife, or within a broader regional context, and is not expected to significantly prevent local wildlife movement. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result significant changes to the genetic connectivity among local populations of wildlife, or within a broader regional context, and is not expected to significantly prevent local wildlife movement. This impact would be less than significant.

Significance Level: Less than Significant Impact

- e) **Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?**

Comment:

Updated Ordinance

Chapter 26D, Heritage or Landmark Trees, in the County Code of Ordinances provides for the protection of heritage or landmark trees in the county. This chapter states that no person may remove a heritage or landmark tree without obtaining a tree permit. A tree may be nominated for heritage or landmark status by the director of the planning department.

Cannabis cultivation on existing agricultural parcels as well as construction of new associated permanent structures could potentially require some tree removal. The updated Ordinance includes the following standards to protect and avoid trees of a certain size or those considered to be “protected” by the County:

A. Tree Protection.

1. **Non-Forested Area Required.** *Cannabis cultivation and associated development can only be located on a site that was non-forested as of December 20, 2016, except that trees may be removed in compliance with subsections 2 and 3, below.*
2. **Trees Generally.** *No tree greater than 20 inches at diameter breast height can be removed to accommodate cannabis cultivation or associated development. Cannabis cultivation and related development must avoid any tree greater than 20 inches at diameter breast height by 1.5 times the dripline.*
3. **Protected Trees.** *No protected tree greater than 9 inches at diameter breast height can be removed to accommodate cannabis cultivation or related development.*
4. **Tree Avoidance.** *Any tree that cannot be removed under subsection 2 or 3, above, must be avoided by 1.5 times the length of the dripline.*

Additionally, the updated Ordinance prohibits the removal of protected trees greater than nine inches at diameter breast height (dbh) and any tree greater than 20 inches dbh, neither the County’s tree protection ordinance nor provisions in the updated Ordinance would ensure that individual trees are replaced after potential removal occurs, and that replacement trees are fully protected during project activities. Therefore, the updated Ordinance may result in a loss of trees that is inconsistent with local policies and ordinances and would have a potentially significant impact. After incorporating mitigation to require a tree replacement plan, this impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in loss of individual trees that is inconsistent with local policies and ordinances, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure BIO-1 would be required to address tree replacement on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure BIO-1 Tree Replacement Plan:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement for protected trees as a best management practice for cannabis cultivation sites:

“If the biotic assessment required by the updated cannabis land use Ordinance determines that

construction may impact protected trees, the project applicant shall procure all necessary tree removal permits as required by County Code Chapter 26D. A tree protection and replacement plan shall be developed by a certified arborist. The plan shall include, but would not be limited to, an inventory of trees to within the construction site, setbacks from trees and protective fencing, restrictions regarding grading and paving near trees, direction regarding pruning and digging within the root zone of trees, and requirements for replacement and maintenance of trees. If protected trees are proposed for removal, replacement tree plantings of like species in accordance with County standards, but at a minimum ratio of 2:1 (trees planted to trees impacted), shall be installed on-site or at an approved off-site location and a restoration and monitoring program shall be developed and implemented for a minimum of seven years or until stasis has been determined by certified arborist. If a protected tree would be encroached upon but not removed, a certified arborist shall be present to oversee all trimming of roots and branches.”

Mitigation Monitoring:

Mitigation Monitoring BIO-1 Tree Replacement Plan: Permit Sonoma staff shall verify that the applicant has acquired all appropriate tree removal permits for cannabis cultivation projects prior to issuance of grading or building permits. Permit Sonoma staff shall verify that a tree protection and replacement plan has been developed by a certified arborist and included in project plans prior to construction, as applicable. Permit Sonoma staff shall also verify that replaced trees are monitored for health and performance for a minimum of seven years or until stasis has been determined by certified arborist.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?

Comment:

Updated Ordinance

Habitat Conservation Plans (HCP) and Natural Community Conservation Plans (NCCP) are site specific plans to address effects on sensitive species of plants and animals. The only HCPs in Sonoma County relate to certain timber production areas in the northwest area of the county (for spotted owl) and in the lower Petaluma River/Sonoma Creek watershed (for salt marsh harvest mouse/black rail/clapper rail). These areas are in the BR zoning district. The standard previously discussed under criterion b would ensure that no cannabis cultivation could occur within these areas under the updated Ordinance and therefore this impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP. This impact would be less than significant.

Significance Level: Less than Significant Impact

5. CULTURAL RESOURCES:

Would the project:

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

Comment:

Updated Ordinance

Historic resources include properties eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) or as a Sonoma County Historic Landmark. As explained in PRC Section 15064.5, “[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” According to guidance from the California Office of Historic Preservation, built environment features over 45 years of age may be considered for federal, state and/or local designation (California Office of Historic Preservation, 1995).

In addition to Sonoma County’s natural resources, there are cultural landscapes that illustrate the county’s historic past with a broad array of properties that mirror the passage of time. State Highway 101 - the county’s transportation spine - services the county seat, Santa Rosa, and the major cities and towns. It follows much of the historic Redwood Highway, the county’s main route from 1915 until 1957. The Redwood Highway in turn parallels the nineteenth century railroad tracks, constructed in 1870. The Northwestern Pacific Railroad, later absorbed into Southern Pacific, connected Sausalito to Eureka through Sonoma County. Passenger trains were discontinued in the 1930s and freight in the 1990s (Hurley 2020).

On April 23, 1974, the County established a program and administrative procedures for designating Historic Landmarks and Historic Districts through Historic District (HD) combining zoning district under the Historic Zoning Ordinance (Ordinance No. 1768). The HD zoning is a zoning classification applied in combination with the base zoning on a parcel. This ordinance also established the Sonoma County Landmarks Commission. The purpose of this combining district is to protect those structures, sites, and areas that are reminders of past eras, events and persons important in local, state, or national history, or which provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the county and its communities, or which provide for this and further generations examples of the physical surroundings in which past generations lived, so that they may serve an educational and cultural function for the citizens of Sonoma County and for the general public.

The updated Ordinance would apply to all agriculturally zoned lands outside the Coastal Zone in the LIA, LEA, DA, and RRD districts, several of which may also be in the HD combining zoning district. The following cultural resource provisions are included in the updated ordinance:

- Historic District. Cannabis cultivation and related activities proposed within the Historic Combining District, Section 26-68, of Chapter 26 of the Sonoma County Code, shall be subject to review by the landmarks commission, unless otherwise exempt, consistent with Section 26-68-020, and shall be required to obtain a use permit.
- Historic Resource Survey. For cannabis cultivation and related activities involving alteration, modification, or demolition of a structure over 45 years old, applicant must submit a historic resource survey demonstrating and concluding that all impacts to significant cultural and historic resources will be avoided.
- Applicant must submit a cultural resources survey with any application proposing ground disturbing activity. Cannabis cultivation and related activities, involving ground disturbance,

including but not limited to construction of new structures, roads, water storage, and trenching for utilities, water, wastewater, or drainage systems, shall be subject to design standards and referral to the Northwest Information Center and local tribes. A use permit will be required if mitigation is recommended by the cultural resource survey or local tribe.

- Where human remains or archaeological resources are discovered during ground disturbing work associated with the cannabis cultivation, all work shall be halted in the vicinity of the find, the permittee shall notify the agricultural commissioner, and the following shall occur before work is resumed:
 1. Human remains. If human remains or suspected human remains are discovered, the permittee shall notify the county coroner and comply with all state law requirements, including Health and Safety Code section 7050.5 and Public Resources Code section 5097.98, to ensure proper disposition of the human remains or suspected human remains, including those identified to be Native American remains.
 2. Archaeological and Tribal Cultural Resources. If archaeological or tribal cultural resources or suspected archaeological or tribal cultural resources are discovered, the agricultural commissioner shall notify the State Historic Preservation Officer and the Northwest Information Center at Sonoma State University, and the permittee shall retain a qualified archeologist or qualified tribal cultural monitor, as applicable, to evaluate the find to ensure proper disposition of the archaeological or tribal cultural resources or suspected archaeological or tribal cultural resources. All costs associated with the evaluation and mitigation of the find shall be the responsibility of the permittee. The agricultural commissioner shall also provide notice of the find to any tribes that have been identified as having cultural ties and affiliation with the geographic area in which the archaeological resources or suspected archaeological resources were discovered, if the tribe or tribes have requested notice and provided a contact person and current address to which the notice is to be sent. The agricultural commissioner is authorized to consult with and solicit comments from notified tribes to aid in the evaluation, protection, and proper disposition of the archaeological or tribal cultural resources or suspected archaeological or tribal cultural resources. The need for confidentiality of information concerning the archaeological resources or suspected archaeological or tribal cultural resources shall be recognized by all parties involved in the consultation. For the purposes of this section, archaeological resources include historic or prehistoric ruins, burial grounds, pottery, arrowheads, midden, or culturally modified soil deposits. For purposes of this section, tribal cultural resource means sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources. Artifacts associated with prehistoric ruins include humanly modified stone, shell, bone, or other cultural materials such as charcoal, ash, and burned rock indicative of food procurement or processing activities. Prehistoric domestic features include hearths, fire pits, or floor depressions; mortuary features are typically represented by human skeletal remains.

The inclusion of the above standards in the updated ordinance would protect historic resources in the County and therefore, no significant impact to historic resources would result from implementation of the updated ordinance.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in a substantial adverse change in the significance of a historical resource pursuant to §15064.5. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice

that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in impacts to presently unknown historical resources at cultivation sites through demolition, construction, and reconstruction activities associated with the project, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure CUL-1 would be required to address unknown historical resources on a case-by-case basis.

Significance Level: Less than Significant Impact

- b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**
- c) **Disturb any human remains, including those interred outside of dedicated cemeteries?**

Comment:

Updated Ordinance

Future cannabis cultivation operations facilitated under the updated Ordinance that would require ground disturbance for cultivation or construction could adversely affect archaeological resources or human remains. Although most projects would occur on existing agricultural lands where ground disturbance is unlikely to encounter intact archaeological resources or human remains due to prior disturbance, some projects, particularly those located in the RRD district, have the potential to affect unanticipated cultural resources. Disturbance of such resources during construction could expose cultural resources to potential vandalism, displace them from their original context, or impair their integrity.

The updated Ordinance provisions described above that requires a cultural resource survey be submitted and considered prior to issuance of a ministerial permit includes provisions to avoid impacts to significant cultural resources. Inclusion of these standards for cultivation permits involving ground disturbance would also provide the protocol for unanticipated archaeological and human remains that may be encountered during construction. Therefore, no significant impacts would occur related to the unanticipated discovery of human remains.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in impacts to presently unknown archaeological resources at cultivation sites through ground disturbing activities associated with the project, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure CUL-2 would be required to address unknown archaeological resources on a case-by-case basis.

Significance Level: Less than Significant Impact.

6. ENERGY:

Electricity and Natural Gas

In 2018, California used 285,488 gigawatt-hours (GWh) of electricity, of which 31 percent were from renewable resources, such as wind, solar photovoltaic, geothermal, and biomass (California Energy

Commission [CEC] 2020a). Adopted on September 10, 2018, Senate Bill (SB) 100 accelerates the State’s Renewables Portfolio Standards Program by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

California also consumed approximately 12,638 million U.S. therms (MMthm) of natural gas in 2018. Electricity and natural gas for the project site would be provided by Pacific Gas and Electric (PG&E). Table 4 and Table 5 show PG&E’s total electricity and natural gas consumption for its service area as well as consumption by sector. In 2018, PG&E provided approximately 27.9 percent of the total electricity and approximately 37.9 percent of the total natural gas usage in California.

Table 4. Electricity Consumption in the PG&E Service Area in 2018 (GWh)

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
5735.1	29,650.0	4,195.1	10,344.7	1,567.3	27,964.8	318.6	79,775.7

Source: CEC 2018a

Table 5. Natural Gas Consumption in the PG&E Service Area in 2018 (MMThm)

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
37.2	899.1	59.0	1,776.0	190.2	1832.8	4,794.4

Source: CEC 2018b

Petroleum

In 2018, approximately 28 percent of the state’s energy consumption was used for transportation activities (U.S. Energy Information System 2019). Californians presently consume over 19 billion gallons of motor vehicle fuels each year. Though California’s population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030, a 20 to 22 percent reduction. This forecast decline is due to both the increasing use of electric vehicles and improved fuel economy for new gasoline vehicles (CEC 2020b).

Cannabis Background

Cultivation equipment, particularly the lighting and climate control equipment required for indoor and mixed-light operations, requires a relatively large amount of energy (primarily electricity) for operation. According to Santa Barbara County’s Cannabis Energy Conservation Plan Electricity Use Calculation Form, indoor cultivation generally uses 200 kilowatts (kWh) per square feet (sf) annually and that mixed-light cultivation uses 110 kWh/sf annually (Santa Barbara County 2018). Specific energy uses in indoor grow operations include high-intensity lighting, dehumidification to remove water vapor and avoid mold formation, space heating or cooling during non-illuminated periods and drying processes, preheating of irrigation water, generation of CO₂ from fossil fuel combustion, and ventilation and air conditioning to remove waste heat. Lighting is the greatest contributor to energy use (Mills 2012). Reliance on equipment can vary widely as a result of factors such as plant spacing, layout, and the surrounding climate of a given facility.

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Comment:

Updated Ordinance

Excessive energy use from individual projects can contribute to cumulative energy impacts in a

region, such as unincorporated Sonoma County. If a project has considerable wasteful, inefficient, or unnecessary consumption of energy during project construction or operation beyond regional supply, this would be a significant impact on energy resources. Future cannabis cultivation projects would involve the use of energy during the construction and operational phases. Energy use during construction phases would be in the form of fuel consumption (e.g.: gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. In addition, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the projects would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting and heating and cooling systems.

Construction Energy Demand

Construction of structures associated with future cannabis cultivation projects would require the use of fossil fuels (primarily gas, diesel, and motor oil) for excavation, grading, and vehicle travel. The precise amount of construction-related energy consumption cannot be calculated in the absence of specific proposed projects. The updated Ordinance limits the allowed square footage of permanent structures of indoor, greenhouse and mixed light cultivation on agricultural lands. The building coverage for all new structures on parcels up to 20 acres would not be allowed to exceed 43,560 square feet (one acre). New structures on parcels greater than 20 acres in size would not be allowed to exceed 50 percent of the maximum lot coverage prescribed for the base zone. As such, construction would generally not require a large amount of fuel or energy usage from construction vehicles and equipment, worker trips, and truck trips due to the limited size of permanent structures permitted.

In addition, construction contractors are required to comply with the California Air Resources Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation, which imposes limits on idling and restricts the use of older vehicles. Such compliance would reduce fuel consumption and lead to the use of fuel-efficient vehicles during covered activities, and associated fuel consumption and energy use would be temporary. Therefore, construction of future cannabis cultivation projects would not result in wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant.

Operational Energy Demand

A cannabis cultivation project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during operation if it utilizes significantly more energy (>20 percent) than a generic commercial building of the same size. Based on the California Energy Commission Report prepared by Itron, Inc, (March 2006), a generic commercial building utilizes 21.25 kWh/sf annually (13.63 kWh from electricity and 7.62 kWh from natural gas).

Operational energy demand would occur from gasoline consumption from transportation (vehicle trips) and electricity and natural gas usage for cultivation, processing, and distribution. Although many cannabis projects facilitated under the updated Ordinance would be primarily outdoor cannabis cultivation, limited indoor and mixed-light cultivation would be permitted. As noted above in the *Cannabis Background* discussion of this section, indoor and mixed-light operations can require a relatively large amount of electricity to run cultivation equipment and lighting. The updated Ordinance would require future cannabis operations to comply with the following standards for commercial cannabis cultivation facilities:

C. Energy Use

1. **Power Source.** *Electrical power for indoor and greenhouse cultivation must be provided by an on-grid or on-site 100% renewable energy source, unless carbon credits are purchased to offset power used that is not from renewable sources. Any offsets shall be generated in California pursuant to a protocol accepted by the County that ensures they are real, permanent, quantifiable, verifiable, enforceable, and additional.*

2. **Generators.** *A portable generator may only be used in the event of a county, state, or federally declared disaster or emergency, and only for so long as is reasonably necessary to restore normal sources of power. Except as allowed in this subsection C.2., use of generators for cannabis cultivation is prohibited.*

Future cannabis cultivation operations would also be required to implement State regulations for cannabis cultivation, contained in Title 3, Division 8, Chapter 1 of the California Code of Regulations (CCR), that are related to energy efficiency and conservation. These regulations would reduce the current levels of greenhouse gas (GHG) emissions produced in the state from indoor and tier 2 mixed-light cultivation (including nurseries using these cultivation techniques) and support the state's GHG reduction target (specifically, to assist in achieving the SB 32 goal of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030). Specifically, the regulations require that beginning January 1, 2022, applications for indoor and tier 2 mixed-light cultivation license renewal (and nurseries using these techniques) must submit data regarding the amount and sources of all electricity used during the previous license period. Beginning January 1, 2023, licensees that have a weighted GHG emission intensity that is greater than the local utility's GHG emission intensity based on the California Renewables Portfolio Standard (RPS) will be required to show evidence of carbon offsets or allowances to cover the excess in carbon emissions. The implementation of these measures, required by law, would further reduce the energy demand for the project's cannabis operations.

Energy would also be consumed through daily worker trips to and from cannabis facilities and commercial truck trips associated with deliveries of supplies and distribution. The number of employees working at each cultivation project would likely be similar to existing and planned agricultural operations and would not be expected to result in a significant increase in vehicle trips compared with existing conditions in the county.

Operation of future cannabis cultivation projects would increase gasoline, electricity, and natural gas consumption due to increased vehicle trips and operational energy needs. Because the updated Ordinance would allow for larger cannabis operations, though constrained by percent of parcel size, large-scale new cannabis uses could potentially exceed energy supply during operation. Therefore, Mitigation Measure ENERGY-1 would be required to ensure that future cannabis cultivation projects would not exceed existing energy supply.

With implementation of Mitigation Measure ENERGY-1, the updated Ordinance would not result in wasteful or unnecessary energy consumption in the Sonoma County, and impacts would be less than significant with mitigation incorporated.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in wasteful or unnecessary energy consumption. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in increased vehicle trips or operational energy needs, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure ENERGY-1 would be required to address energy supply on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure ENERGY-1 Energy Demand Study and Energy Conservation Plan:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, ensuring that energy

demand from future cannabis projects projected to consume more than 25.5 kWh/sf annually (20 percent more energy than a commercial building) is studied and reduced to acceptable levels:

“Prior to issuance of building permits, the applicant for a cannabis cultivation project shall provide to the County for review and approval an estimate of the project’s energy demand in terms of kWh/sf. If estimated energy consumption would exceed 25.5 kWh/sf annually the applicant shall prepare for County review and approval an Energy Conservation Plan. This plan shall include a package of measures that, when implemented, would reduce, or offset the project’s energy demand to within 20 percent of the demand associated with a generic commercial building of the same size. The Energy Conservation Plan shall include the following:

- a. A detailed inventory of energy demand prepared by a Certified Energy Analyst. The inventory shall include an estimate of total energy demand from all sources associated with all proposed cannabis cultivation activities including, but not limited to, lighting, odor management, processing, and climate control equipment. The quantification of demand associated with electricity shall be expressed in total kilowatt hours (kWh) per year; demand associated with natural gas shall be converted to kWh per year.
- b. A program for providing a reduction or offset of all energy demand that is 20 percent or more than a generic commercial building of the same size. Such a program (or programs) may include, but is not limited to, the following:
 - i. Evidence that the project will permanently source project energy demands from renewable energy sources (i.e. solar, wind, hydro). This can include purchasing the project’s energy demand from a clean energy source by enrolling PG&E’s Solar Choice program or Regional Renewable Choice program or other comparable public or private program.
 - ii. Evidence documenting the permanent retrofit or elimination of equipment, buildings, facilities, processes, or other energy saving strategies to provide a net reduction in electricity demand and/or GHG emissions. Such measures may include, but is not limited to, the following:
 1. Participating in an annual energy audit.
 2. Upgrading and maintaining efficient heating/ cooling/ dehumidification systems.
 3. Implement energy efficient lighting, specifically light-emitting diode (LED) over high-intensity discharge (HID) or high-pressure sodium (HPS) lighting.
 4. Implementing automated lighting systems.
 5. Utilizing natural light when possible.
 6. Utilizing an efficient circulation system.
 7. Ensuring that energy use is below or in-line with industry benchmarks.
 8. Implementing phase-out plans for the replacement of inefficient equipment.
 9. Adopting all or some elements of CalGreen Tier 1 and 2 measures to increase energy efficiency in greenhouses.
 - iii. Construction of a qualified renewable energy source such as wind, solar photovoltaics, biomass, etc., as part of the project. [Note: Inclusion of a renewable energy source shall also be included in the project description and may be subject to environmental review.]
 - iv. Any combination of the above or other qualifying strategies or programs that would achieve a reduction or offset of the project energy demand that is 20 percent or more above a generic commercial building of the same size.”

Mitigation Monitoring:

Mitigation Monitoring ENERGY-1 Energy Demand Study and Energy Conservation Plan: Permit Sonoma staff shall verify that energy studies have been prepared for all cannabis cultivation projects prior to issuance of grading or building permits. Permit Sonoma staff shall also verify that recommended measures in such studies and Energy Conservation Plans are implemented during construction and operation of cannabis projects, as applicable.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Comment:

Updated Ordinance

In 2003, the California Energy Commission (CEC), the California Power Authority, and the California Public Utilities Commission (CPUC) jointly adopted an Energy Action Plan (EAP) that listed goals for California's energy future and set forth a commitment to achieve these goals through specific actions. In 2005, the CEC and CPUC approved the EAP II, which identified further actions to meet California's future energy needs, mainly focused on the energy and natural gas sectors. The CEC also prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with the other state, federal, and local agencies. The alternative fuels plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. These plans, policies, and regulations are aimed at reducing energy use and promoting renewable energy through measures including efficient building design, community outreach to install renewable energy, and encouraging alternative fueled vehicles and equipment.

As mentioned in the background discussion of electricity and natural gas, SB 100 mandates 100 percent clean electricity for California by 2045. Because future cannabis cultivation projects would be powered by the existing electricity grid, these projects would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. Additionally, construction and operation of cannabis cultivation projects would not conflict with or obstruct implementation of either the EAP, EAP II, or the State Alternative Fuels Plan. Future cannabis cultivation projects would be required to comply with all applicable state regulations designed to promote efficient energy use by cannabis cultivators. As described above under criterion a, the updated Ordinance would require all future cannabis cultivation projects to comply with renewable energy requirements for commercial cannabis cultivation facilities. Therefore, the updated Ordinance would not interfere with energy efficiency strategies and would not conflict with or obstruct the state plan for renewable energy. No impact would occur.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could interfere with energy efficiency strategies or conflict with or obstruct the state plan for renewable energy. No impact would occur.

Significance Level: No Impact

7. GEOLOGY AND SOILS:

Would the project:

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i. **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Comment:

Updated Ordinance

Future cannabis projects facilitated by the updated Ordinance would be located in the northern San Francisco Bay Area, a region of intense seismic activity. Two types of seismic faults exist in Sonoma County, normal faults where two parts of the earth's surface pass by each other and thrust faults where one part of the earth's surface moves over another. As shown in Figure PS-1b of the Sonoma County General Plan, several faults occur in Sonoma County, including four major faults of concern: Healdsburg Fault, Maacama Fault, Rodgers Creek Fault, and San Andreas Fault (Sonoma County 2014). Cannabis operations established under the updated Ordinance would be subject to the siting criteria, general development and special use standards of Chapter 11, Construction Grading and Drainage, of the County Code as it relates to building and grading, addressing seismic safety including fault rupture, strong ground shaking, liquefaction, and landslides. Additionally, the Sonoma County Zoning Code designates properties which are located within the Alquist-Priolo Special Study Zones as part of the (G) Geologic Hazard Area Combining District. In this district proposed developments are required to complete a geologic report that describes the hazards associated with the property and include mitigation measures to reduce risks to acceptable levels. If structures are proposed on parcels in the G district, these structures are restricted on the trace of an active fault or within 50 feet of the surface trace of any fault. The updated Ordinance would not affect these existing requirements that address potential fault rupture impacts and therefore would result in less than significant impacts relating to rupture of a known earthquake fault.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not affect existing requirements, as described above, that address potential fault rupture impacts. Impacts relating to rupture of a known earthquake fault would be less than significant.

Significance Level: Less than Significant Impact

ii. Strong seismic ground shaking?

Comment:

Updated Ordinance

Strong ground shaking at future cannabis projects could result from a rupture of local faults in Sonoma County, as well as any of the major Bay Area regional earthquake faults (Sonoma County 2014). Predicting seismic events is not possible, nor is providing mitigation that can entirely reduce the potential for injury and damage that can occur during a seismic event. However, using accepted geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. The design and construction of future structures would be subject to load and strength standards of the California Building Code, as adopted by the County under County Code Section 7-13, which take seismic shaking into account.

The updated Ordinance would allow for a limited increase in the square footage of permanent structures of indoor, greenhouse and mixed light cultivation on agricultural lands. The building coverage for all new structures on parcels up to 20 acres would not be allowed to exceed 43,560 square feet (one acre). New structures on parcels greater than 20 acres in size would not be allowed to exceed 50 percent of the maximum lot coverage prescribed for the base zone. This increase in permanent structures may result in additional potential substantial adverse effects due to seismic ground shaking. However, cannabis operations established under the updated Ordinance would be subject to the siting criteria, general development and special use standards included in County Code Chapter 11 as it relates to building and grading, addressing seismic safety including fault rupture, strong ground shaking, liquefaction, and landslides. Additionally, as mentioned above in criterion a. 1. properties in the G district would be subject to additional geotechnical requirements and building

restrictions. The updated Ordinance would not lessen these existing requirements and would result in less-than-significant impact related to strong seismic ground shaking.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not affect existing geotechnical and building code requirements, as described above, that address seismic impacts. Impacts related to strong seismic ground shaking would be less than significant.

Significance Level: Less than Significant Impact

iii. Seismic-related ground failure, including liquefaction?

Comment:

Updated Ordinance

Liquefaction, which is primarily associated with unconsolidated, saturated materials, is most common in areas of sand and silt or on reclaimed lands. In these areas, ground failure and differential settlement could result from a severe earthquake, damaging paved surfaces and elevated structures. Liquefaction potential is highest in areas underlain by poorly engineered Bay fills, Bay mud, and unconsolidated alluvium. As mapped in Figure PS-1c of the Sonoma County General Plan, low lying parts of Sonoma County susceptible to liquefaction include the valley in between the Mayacamas Mountains and the more western portion of the Coast Range along Highway 101, and in the tidal marshes to the south near the San Pablo Bay (Sonoma County 2016a).

As discussed under criteria a.1 and a.2, cannabis operations established under the updated Ordinance would be subject to the siting criteria, general development and special use standards of the County Code relates to building and grading, addressing seismic safety including fault rupture, strong ground shaking, liquefaction, and landslides. Additionally, any properties in the G district under the Sonoma County Zoning Code would be subject to additional geotechnical requirements and building restrictions. The updated Ordinance would not affect these existing requirements and therefore the updated Ordinance would result in less-than-significant impact related to ground failure due to liquefaction.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not affect existing geotechnical requirements and building restrictions, as described above. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in new structures being placed in areas susceptible to liquefaction. Impacts related to ground failure due to liquefaction would be less than significant.

Significance Level: Less than Significant Impact

iv. Landslides?

Comment:

Updated Ordinance

As mapped in Figure PS-1d of the Sonoma County General Plan, areas of very high landslide susceptibility occur throughout the county mainly in the Coast Range in the northwestern portion and along the eastern edge of the county in the Mayacamas Mountains (Sonoma County 2016a). These areas include very steep slopes in hard rock and moderate to very steep slopes in weak rock. Future cannabis operations established under the updated Ordinance may place people or structures in areas of high landslide risk as identified in the Sonoma County General Plan. However, these future

operations would be subject to the siting criteria, general development, and special use standards of the County Code as it relates to building and grading, addressing seismic safety including fault rupture, strong ground shaking, liquefaction, and landslides.

Additionally, the updated Ordinance would require cultivation sites to adhere to the following standards to reduce potential impacts to people and structures due to landslides.

- A. **Slope Limitation.** *A cultivation site is only allowed on a slope of 15% or less, as that term is defined by Section 11-22-020, of Chapter 11, of the Sonoma County Code.*
- B. **Grading Limit.** *Grading for outdoor canopy must comply with Chapter 36 of the Sonoma County Code. Grading for construction must comply with Chapter 11 of the Sonoma County Code.*
- C. **Ridgetop Protection.** *Cannabis cultivation shall be set back 50 feet from the delineated slope break of descending existing slopes greater than 50 percent for more than 50 feet in slope length.*

These standards would require future cultivation sites to be located on slopes of less than 15 percent and to follow grading standards established in the County Code. Chapter 11 of the County Code also requires that a proposed grading area be located outside of the G district to reduce risk of landslides and geologic hazards. With implementation of these standards and adherence to existing requirements in the County Code, the updated Ordinance would have a less than significant impact related to risk involving landslides.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not affect existing requirements in the County Code including grading standards, as described above. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in new structures being placed in areas susceptible to landslides. Impacts related to risk involving landslide would be less than significant.

Significance Level: Less than Significant Impact

b) Result in substantial soil erosion or the loss of topsoil?

Comment:

Updated Ordinance

Soil erosion is widespread in Sonoma County and areas of weak soil and steep slopes are at highest risk. Activities such as grading, vegetation removal and drainage attention can initiate soil erosion and result in sedimentation of lakes, streams, and other waterways. Unregulated cannabis cultivation sites have caused impacts related to soil erosion and sedimentation of waterways.

Under existing regulations earthwork, grading, trenching, and backfilling must be conducted in accordance with erosion control provisions of the Drainage and Storm Water Management Ordinance (Chapter 11, Sonoma County Code and Building Ordinance (Chapter 7, Sonoma County Code). In addition, under the updated Ordinance, cultivation operations would be limited to sites not exceeding a 15 percent slope as described above under criterion a.4. Cultivation sites would be designated to maintain natural grades and use existing roads for access. Following the creation of temporary access roads, construction staging areas, or field office sites used during construction, natural grades must be restored and revegetated. During construction an all-weather access road for maintenance and emergency vehicles must be maintained to reduce erosion throughout the site.

The updated Ordinance also includes the following standard to control runoff and storm water during and after construction.

- J. *Runoff and Storm Water Control.*** Applicant must submit with the application a storm water management plan and an erosion and sediment control plan that ensure runoff containing sediment or other waste or by-products drains to the storm drain system, waterways, or adjacent lands. The erosion control plan must include the department's best management practices for erosion control during and after construction and permanent drainage and erosion control measures pursuant to Chapter 11.

This standard would require applicants to prepare and implement a storm water management plan and implement sediment and erosion control measures during and after construction. With implementation of these standards and adherence to existing requirements in the County Code, the updated Ordinance would have a less than significant impact related to soil erosion or the loss of topsoil.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, as described above, it would not affect existing sediment and erosion control requirements in the County Code. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in soil erosion or the loss of topsoil, and impacts would be less than significant.

Significance Level: Less than Significant Impact

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Comment:

Updated Ordinance

If new construction is proposed on an unstable geology or soil condition, consideration of the underlying geology and soils is a standard part of building permit review process. All new structures, as well as renovated buildings would be required to meet County Building Code Standards for structural stability, as adopted by County Code Section 7-13.

The updated Ordinance standard described in criteria, including the restriction of cultivation on slopes of 15 percent or less, would reduce potential slope stability impacts to less than significant levels. Therefore, the updated Ordinance would not result in impacts related to unstable geologic units or soils and impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, as described above, it would not affect existing requirements in the County Code for structural stability. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in new structures being placed on unstable geologic units or soils. Impacts related to risk involving on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse due to unstable soils would be less than significant.

Significance Level: Less than Significant Impact

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Comment:

Updated Ordinance

Buildings, utilities, and roads can be damaged by clay rich soils which shrink and swell seasonally depending upon their water content and the rainfall. This is a less obvious hazard than earthquakes or landslides, but the gradual cracking, settling, and weakening of older buildings has a significant cumulative effect. Soils with high clay content are found in many valley areas that are planned for development. According to the Natural Resource Conservation Service's (NRCS) Web Soil Survey, multiple soil types that occur in Sonoma County have a potential for shrinking and swelling behavior, including but not limited to Novato clay, Clear Lake clay, and Diablo clay (NRCS 2020). In areas underlain by expansive soils, the shrinking and swelling of soil can disrupt or damage paved surfaces. Review and consideration of the soil conditions is a standard part of the site plan and design carried out under the existing plan check and building permit process, as required under County Code Section 11-12-050, Completion of work. Additionally, the County has adopted the California Building Code Section 1803 which requires a geotechnical report and review of soil conditions when new or replacement structures are planned on areas with suspected expansive soils. The building standards applied would adequately minimize any risk to life or property related to expansive soils and impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, as described above, it would not affect existing building code and geotechnical requirements in the County Code. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in new structures being placed in areas with suspected expansive soils. Impacts related to expansive soils would be less than significant.

Significance Level: Less than Significant Impact

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Comment:

Updated Ordinance

Most cannabis cultivation operations would produce some amount of wastewater from excess irrigation in hydroponic, indoor or greenhouse systems. Indoor and mixed light operations may use water recycling technology that may reduce the amount of discharge but could increase the amount of nutrients and chemicals in the wastewater that is discharged. For either the closed or open hydroponic systems, the nutrient solutions used by cultivators eventually become out of balance and growers must discard them. Wastewater would also be generated through the use of employee restrooms, as well as processing or cannabis washing operations.

The two primary pollutants found in hydroponic wastewater are phosphates and nitrates. Phosphates can attach to sediments such as clay particles, while nitrates are very soluble in water. Both of these pollutants can trigger eutrophication, causing algal blooms, which deplete oxygen in the water and can also release toxins that can kill animals or cause humans to be sick. Nitrate leaching can cause several environmental problems including the loss of calcium and other cations as well as moving into surface or ground water where it can severely impact drinking water. Elevated nitrate-N concentrations in drinking water can result in "blue-baby syndrome" and be fatal to infants by interfering with oxygen transport in the blood. To address these issues, the updated Ordinance requires that cultivators comply with best management practices (BMPs) established by the

Agricultural Commissioner for the discharge of wastewater and that excess irrigation water from cultivation activities be discharged to an irrigation or bioretention treatment systems, sewer, or a septic system that has been properly evaluated and sized.

Additionally, the North Coast Regional Water Quality Control Board (NCRWQCB) has established a Cannabis Cultivation Waste Discharge Regulatory Program (Order R1-2015-0023) for those parcels within its jurisdiction that regulates the waste discharge associated with outdoor cannabis cultivation operations over 2,000 square feet in size and indoor cultivation operations that have the potential to discharge to waters of the state. Three regulatory tiers are established based on threat to water quality and compliance may be achieved through an approved third-party program.

As there are parcels not under the NCRWQCB's jurisdiction, the updated Ordinance includes the following standards related to wastewater disposal and the use of septic tanks.

- A. **Wastewater Discharge.** *Applicant must submit a wastewater management plan that complies with the department's best management practices and the following requirements:*
1. *Identify the estimated amount and disposal of waste water, excess irrigation, and domestic wastewater, and provide data to support the estimate;*
 2. *Include verification of compliance with or waiver from the waste discharge requirements of the state water resource control board;*
 3. *Direct excess irrigation water or effluent to a sanitary sewer, septic, irrigation, graywater, or bio-retention treatment system;*
 4. *If discharging excess irrigation to a septic system, include a system capacity evaluation by a qualified sanitary engineer that demonstrates the system has adequate capacity;*
 5. *Dispose of domestic wastewater discharge from employees in a permanent sanitary sewer or on-site septic system demonstrated by a system capacity evaluation by a qualified sanitary engineer to have adequate capacity.*

All zoning and use permits approved under the updated Ordinance would require annual renewal which provides the opportunity for further research and review of cannabis operations and the associated amounts of wastewater. This annual review would provide opportunity for additional conditions or changes in the above standard to further reduce impacts related to wastewater. The updated Ordinance standards coupled with the NCRWQCB's oversight would reduce any potential impacts to wastewater to a less than significant level.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, as described above, it would not affect existing requirements for wastewater discharge and disposal. Additionally, the proposed General Plan amendment would not result in the construction or operation of additional cannabis projects that could result in the use of septic tanks or alternative wastewater disposal systems, and impacts would be less than significant.

Significance Level: Less than Significant Impact

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Comment:

Updated Ordinance

Sonoma County is situated in the Coast Ranges, one of 11 major geomorphic provinces in California (California Geological Survey 2002). A geomorphic province is a region of unique topography and geology that is distinguished from other regions based on its landforms and geologic history. During the Cenozoic era, the area of the present-day Coast Ranges was covered by seawater and a thick deposit of marine to nonmarine shale, sandstone, and conglomerate accumulated on the Franciscan

basement rock (Barron 1989; Bartow and Nilsen 1990; Graymer et al. 1996). Later, during the late Miocene to Pliocene eras, a mountain-building episode occurred in the vicinity of the present-day Coast Ranges, resulting in their uplift above sea level. Subsequently, from the late Pliocene to Pleistocene eras, extensive deposits of terrestrial alluvial fan and fluvial sediments were deposited in the Coast Ranges (Norris and Webb 1990).

Cultivation operations that would require ground disturbance for grading could disturb paleontological resources. Most future cannabis cultivation projects would likely occur in highly disturbed agricultural areas where excavations are unlikely to encounter intact geologic sediments. However, proposed cultivation operations requiring the construction of permanent structures on previously undisturbed land in Sonoma County particularly have the potential to impact intact geologic units that have the potential to yield paleontological resources.

Overall, ground disturbance associated with construction of structures associated with cannabis cultivation has a low potential to directly disturb geologic units with high paleontological sensitivity at shallow depths (i.e., less than or equal to five feet below ground surface). Nonetheless, development actions involving ground disturbance that would exceed five feet below ground surface in areas may disturb geologic units with potentially high paleontological sensitivity at the subsurface. Therefore, Mitigation Measure GEO-1 would be required to ensure potential paleontological resources are identified prior to ground disturbing activities and are properly avoided. With implementation of Mitigation Measure GEO-1, the updated Ordinance would reduce impacts to paleontological resources to a less-than-significant level by requiring paleontological resource studies for projects in high sensitivity geological units in Sonoma County.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in construction or operation of additional cannabis projects that could result in direct or indirect impacts to paleontological resources. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in impacts to presently unknown paleontological resources at cultivation sites through grading or ground disturbing activities associated with the project, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure GEO-1 would be required to address unknown paleontological resources on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure GEO-1 Paleontological Resources Studies:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, ensuring that individual cannabis projects do not directly or indirectly disturb or destroy paleontological resources:

“A qualified paleontologist shall be retained to review all project plans where ground disturbance would exceed five feet below ground surface to determine if paleontologically sensitive units could be impacted. A qualified professional paleontologist is defined by the SVP standards as an individual preferably with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010). If it is determined that no paleontologically sensitive units could be impacted, then no further mitigation would be required. If it is determined that a paleontologically sensitive unit could be impacted, then the following shall be followed as a minimum standard:

The qualified professional paleontologist shall direct all mitigation measures related to paleontological

resources and design a Paleontological Resources Mitigation and Monitoring Program (PRMMP) for the project, which outlines the procedures and protocol for conducting paleontological monitoring and mitigation. Monitoring shall be conducted by a qualified paleontological monitor who meets the minimum qualifications per standards set forth by the SVP. The PRMMP shall address the following procedures and protocols:

- Timing and duration of monitoring;
- Procedures for work stoppage and fossil collection;
- The type and extent of data that should be collected with any recovered fossils;
- Identify an appropriate curatorial institution;
- Identify the minimum qualifications for qualified paleontologists and paleontological monitors;
- Identify the conditions under which modifications to the monitoring schedule can be implemented; and
- Details to be included in the final monitoring report.”

Mitigation Monitoring:

Mitigation Measure GEO-1 Paleontological Resources Studies: Permit Sonoma staff shall verify that paleontological resources studies have been prepared for all cannabis cultivation projects involving ground disturbance that would exceed five feet below ground surface prior to issuance of grading or building permits. Permit Sonoma staff shall also verify that recommended measures in such studies are implemented during construction and operation of cannabis projects, as applicable.

8. GREENHOUSE GAS EMISSIONS:

Would the project:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Comment:

Updated Ordinance

Since adoption of the 2016 ND, the regulatory setting for greenhouse gas (GHG) emissions in California has changed. Senate Bill (SB) 32 became effective in January 2017 and requires the California Air Resource Board (CARB) to develop technologically feasible and cost effective regulations to achieve a targeted 40 percent statewide reduction in GHG emissions from the 1990 baseline level by 2030. In December 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. To meet the reduction target, the 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and regulations. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies.

On September 10, 2018, the governor issued Executive Order B-55-18, setting a supplemental GHG reduction target to SB 32. This order established goals of achieving statewide carbon neutrality no later than 2045 and maintaining net negative emissions thereafter. It directs CARB to work with State agencies to develop a framework for implementation and accounting that tracks progress for this goal and to include measures in the next Scoping Plan update to achieve carbon neutrality by 2045. Under SB 32 and Executive Order B-55-18, the updated Ordinance would have a significant impact if it conflicts with achievement of statewide GHG reduction targets instituted since adoption of the 2016 ND: 40 percent below 1990 baseline emissions by the year 2030, and carbon neutrality by 2045.

The updated Ordinance would allow for expanded cannabis cultivation, up to a potential maximum of 65,753 acres in unincorporated Sonoma County if all land covered under the updated Ordinance was converted to cannabis cultivation operations. Cannabis cultivation is a land use which generates substantial GHG emissions from energy use. As detailed in Section 6, *Energy*, cultivation equipment, particularly the lighting and climate control equipment required for indoor and mixed-light operations, requires a relatively large amount of energy (primarily electricity) for operation. Lighting is the greatest contributor to energy use (Mills 2012). Indoor cultivation and mixed light cultivation operations include the use of energy-intense lighting and ventilation systems, which could operate 24 hours per day (Sonoma County 2019). Other elements of cannabis cultivation also would generate GHG emissions, including but not limited to energy used to transport water to irrigation systems, mobile emissions from vehicle trips, and decomposition of solid waste transported to landfills. In addition to the operation of cultivation sites, construction would temporarily generate GHG emissions from the use of equipment, haul trips transporting equipment and materials, and vehicle trips by construction workers.

Without reducing GHG emissions from energy use, new cannabis operations permitted under the updated Ordinance could contribute to an exceedance of California's aggressive statewide targets. However, the updated Ordinance incorporates strategies to minimize GHG emissions from energy use. It would mandate that electrical power be provided by a 100 percent renewable energy source, or otherwise that operators of cultivation sites offset emissions from non-renewable sources by purchasing carbon credits. This would improve upon the power mix in PG&E's base electricity plan, which sourced 15 percent of power from natural gas and other GHG-emitting fuels in 2018 (PG&E 2019). In addition, the use of generators would be restricted to emergency situations. With implementation of these standards, new permitted cannabis operations would not result in a net increase in GHG emissions from on-site energy use. Expanded cannabis operations under the updated Ordinance also would displace other types of agricultural cultivation (e.g., vegetables, plant nurseries) which generate their own GHG emissions. Using 100 percent renewable energy, cannabis operations would not necessarily generate more GHG emissions than these existing agricultural uses.

The updated Ordinance could result in an increase in vehicle miles traveled (VMT) and associated mobile GHG emissions from commute trips (Humboldt County 2018). New trips would be dispersed throughout Sonoma County, and the distribution of each trip would depend on the locations of individual cultivation sites. During harvest season, VMT associated with additional workers would likely increase. Nonetheless, incremental increases in VMT would be a factor of individual site location and operational-specific parameters, including harvest quantity, number of workers/residents, and number/type of daily trips required. State regulations such as the Low Carbon Fuel Standard would require vehicles to reduce the carbon intensity of transportation fuels, thus reducing GHGs emitted from employees commuting to cultivation sites.

Although the updated Ordinance would result in greater GHG emissions from transportation, water use, and solid waste disposal, the requirement of 100 percent renewable energy would nearly eliminate increases in GHG emissions from energy use. This would substantially reduce overall GHG emissions from cannabis cultivation sites. Therefore, the updated Ordinance would not result in a considerable contribution to cumulative statewide GHG emissions in California. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate GHG emissions. This impact would be less than significant.

Significance Level: Less than Significant Impact

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Comment:

Updated Ordinance

The County does not have an adopted Climate Action Plan but has adopted a Climate Change Action Resolution (May 8, 2018) which resolved to reduce GHG emissions by 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, and noted 20 strategies for reducing GHG emissions, including increasing carbon sequestration, increasing renewable energy use, and reducing emissions from the consumption of good and services. Statewide policy for GHG emissions is consistent with the County's target for the year 2030 and exceeds its mid-century target. As discussed in item 8.a, the updated Ordinance would incorporate GHG reduction strategies for energy use, resulting in consistency with applicable statewide targets. Therefore, it would be consistent with local or state plans, policies, or regulations adopted for the purpose of reducing emissions of greenhouse gases. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate GHG emissions, and it would not conflict with local or state plans, policies, or regulations adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

Significance Level: Less than Significant Impact

9. HAZARDS AND HAZARDOUS MATERIALS:

Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Comment:

Updated Ordinance

Individual cannabis projects facilitated by the updated Ordinance may require the use of hazardous materials such as fuels, solvents, lubricants, paint and cleaning materials during construction. During construction activities, on-site hazardous materials that may be used, stored, or transported would be required to follow standard protocols (as determined by the U.S. Environmental Protection Agency (USEPA), California Department of Health and Safety, and Sonoma County) for maintaining health and safety. Proper use of materials in accordance with local, State, and federal requirements, and as required in construction documents, would minimize the potential for accidental releases or emissions from hazardous materials.

Future cannabis operations may require the use and storage of nominal amounts of potentially hazardous materials such as fuel for power equipment and backup generators, and pesticides. Additionally, mixed-light cultivation operations may use high-powered lights, which may contain hazardous components that could enter the environment through disposal. The use and storage of these materials at cannabis operations established under the updated Ordinance would be subject to

Sonoma County's Certified Unified Program Agency (CUPA) requirements including implementation of a Hazardous Materials Business Plan to be approved by the County, and compliance with the California Fire Code. Required compliance with Sonoma County requirements and the California Fire Code would reduce the potential hazard from use and storage of hazardous materials.

Plant nutrients, fertilizers, fungicides, and approved algaecides may be used during the cultivation operation. In accordance with California Department of Food and Agriculture (CDFA) regulation 8106(a)(3), a pest management plan shall include, but not be limited to, the following: (a) product name and active ingredient(s) of all pesticides to be applied to cannabis during any stage of plant growth; (b) integrated pest management protocols, including chemical, biological, and cultural methods the applicant anticipates using to control prevent the introduction of pests on the cultivation site; (c) a signed attestation that states the applicant shall contact the appropriate County Agricultural Commissioner regarding requirements for legal use of pesticides on cannabis prior to using any of the active ingredients or products included in the pest management plan and shall comply with all pesticide laws. In addition, CDFA regulations 8304(a) and 8307 outline pesticide use requirements, including: (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 regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols. Additionally, the transportation of hazardous materials is subject to the Hazardous Material Transportation Act of 1975, which provides procedures and policies, material designations, packaging requirements, and operational rules for transportation of hazardous materials. The Resource Conservation and Recovery Act (RCRA) also established hazardous waste disposal requirements; please refer to 40 CFR parts 260 through 273.

The County Agricultural Commissioner has established BMPs for pesticide and fertilizer use and storage that apply to all cannabis cultivation operations in Sonoma County. These BMPs specify that pesticides and fertilizer use must be done in compliance with all label requirements and applied at label rates, as well as where pesticide and fertilizers may be stored, container types to ensure these materials are not spilled and do not leak, as well as provisions to check for spills and cleanup methods should such a spill occur. Cultivation operations would be subject to BMPs adopted by the Agricultural Commissioner and RWQCB and would require annual inspections that would substantially reduce the potential for impact related to the handling and disposal of hazardous materials. With adherence to existing hazardous materials laws and regulations, as well as implementation of BMPs established by the Agricultural Commissioner, the updated Ordinance would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could create a significant hazard through the routine transport, use, or disposal of hazardous materials. Additionally, the proposed General Plan amendment would not affect existing requirements, as described above, that address the accidental release of hazardous materials. This impact would be less than significant.

Significance Level: Less than Significant Impact

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Comment:

Updated Ordinance

Future cannabis cultivation projects would be restricted to the LIA, LEA, DA, and RRD zoning

districts, which are generally located in more rural areas of the county. Therefore, most future cultivation projects that would use hazardous materials or generate hazardous waste would be removed from existing or proposed school sites. The updated Ordinance also increases the standard for setbacks to 1,000 feet from the property line of a parcel with a sensitive use such as a school providing education to K-12 grades, a public park, Class 1 Bikeway, day care centers, or an alcohol or drug treatment facility.

The 1,000-foot setback from schools is less than one-quarter mile. However, new, and existing cannabis cultivation operations under the updated Ordinance would be subject to all existing hazardous materials laws and regulations and would be required to implement BMPs established by the Agricultural Commissioner for hazardous materials storage and use. Given the required setback from schools, the requirement to adhere to existing regulations, and the distance from existing or proposed schools due to existing base zoning requirements in the agricultural and resource districts, the updated Ordinance would result in a less than significant impact related to hazardous materials in proximity to a school.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could place hazardous materials, substances, or waste within one-quarter mile of a school. Additionally, the proposed General Plan amendment would not affect existing requirements, as described above, that address the accidental release of hazardous materials. This impact would be less than significant.

Significance Level: Less than Significant Impact

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Comment:

Updated Ordinance

The provisions in Government Code Section 65962.5 are commonly referred to as the Cortese List. According to databases of hazardous material sites maintained by the California Department of Toxic Substances Control (DTSC; EnviroStor) and the California State Water Resources Control Board (SWRCB; GeoTracker), Sonoma County has the following types of hazardous sites that are still active or need further investigation: leaking underground storage tanks (LUSTs), cleanup program sites, school investigation sites, voluntary cleanup sites, military evaluation sites, corrective action sites, evaluation sites, state response sites, federal Superfund (DTSC 2020, SWRCB 2020). The updated Ordinance would not allow the initiation of cannabis operations in locations included on the Cortese List, per the following standard:

- D. **Hazardous Materials Sites.** A cannabis cultivation site must be located on a parcel that is not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5.*

With inclusion of this standard the updated Ordinance would require cannabis projects located on a site that is included on the Cortese List to obtain a use permit. This would trigger additional site review to identify potential hazards that may occur as a result of the proposed siting on a hazardous materials site, and include conditions of approval to reduce those potential hazards. Additionally, new cannabis cultivation projects would be located on lands zoned for agricultural uses that are typically associated with the historical use of pesticides and arsenic. Project construction activities that disturb soils on-site could potentially result in the release of hazardous materials into the environment related to previous agricultural use.

Therefore, impacts related to the accidental release of hazardous materials into the environment would be potentially significant. Mitigation Measure HAZ-1 would be required to identify previously unknown hazardous materials on future cultivation sites.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could be placed on a known hazardous materials site. Additionally, the proposed General Plan amendment would not affect existing requirements, as described above, that address the accidental release of hazardous materials. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in new structures being placed in areas with unknown potential hazards, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure HAZ-1 would be required to address hazardous materials and subsequent remediation on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure HAZ-1 Hazardous Material Sites Investigation and Remediation:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, so that applicants for cannabis cultivation projects identify unknown hazardous materials on the project sites and mitigate for hazardous contaminants where necessary:

“Prior to construction of a cannabis cultivation project that requires ground disturbance, the applicant shall complete a Phase I environmental site assessment, and where warranted based on the findings of the Phase I, a Phase II hazardous waste site investigation. Contaminants identified shall be remediated to concentrations below applicable screening-level thresholds for human health. No disturbance of contaminated soil shall be permitted unless an approved site cleanup and remediation plan has been implemented for the identified hazardous waste sites.”

Mitigation Monitoring:

Mitigation Monitoring HAZ-1 Hazardous Material Sites Investigation and Remediation: Permit Sonoma staff shall verify that hazardous material sites investigations have been prepared for all cannabis cultivation projects requiring ground disturbance prior to the issuance of grading or building permits. Permit Sonoma staff shall also verify that remediation activities have been properly implemented and levels of identified contaminants are below applicable thresholds, as applicable.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

Comment:

Updated Ordinance

Sonoma County contains six public use airports. The largest is the Charles M. Schulz Sonoma County Airport located off Airport Boulevard near Windsor. Smaller municipal airports are located in Cloverdale, Healdsburg, Petaluma, Sonoma Skypark, and Sonoma Valley. Structures related to cannabis operations under the updated Ordinance would be required to adhere to existing land use requirements. Since such operations would be required to comply with existing height limitations of the affected zoning districts, these facilities are not expected to violate the height restrictions in the various airport safety zones designated in the County's Comprehensive Airport Land Use Plan.

The updated Ordinance will be referred to the Airport Land Use Commission for review and comment.

As discussed in the 2016 ND, where a cannabis cultivation site is located near an airport the State Aeronautics Code requires the Community Noise Equivalent Level (CNEL) noise metric to be used when evaluating the noise impacts of aircraft operations. Commercial and service uses, wholesale trade, warehousing, light industrial are considered acceptable up to a CNEL of 65. A review of the CNEL contours for airports in Sonoma County indicates that the 65 CNEL occurs in proximity to the runway approach and take-off zones and does not extend extensively into surrounding lands. Therefore, the updated Ordinance would not result in the exposure of workers at cultivation sites to excessive noise levels from aircraft. As such the updated Ordinance would have a less than significant impact related to airport noise and safety.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could place employees in an area with safety hazards or excessive noise due to proximity to an airport. This impact would be less than significant.

Significance Level: Less than Significant Impact

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Comment:

Updated Ordinance

The updated Ordinance would not impair implementation of, or physically interfere with the County's adopted emergency operations plan. There is no separate emergency evacuation plan for the County. The updated Ordinance would not change existing circulation patterns and would not affect emergency response routes or response times. Cannabis operations established under the updated Ordinance would be required under Section 38.12.010, Design, Lighting Security and Screening, to prepare and implement a site security plan that includes emergency access in compliance with fire safe standards. Additionally, the updated Ordinance includes the following standard:

A. Fire Code Requirements. *An application under this chapter shall include a fire prevention plan for construction and ongoing operations. The fire prevention plan must state how the development will comply with chapters 13 and 13A of this code, and all other applicable local and state standards, including those governing emergency vehicle access and turn-around at the facility site, vegetation management and fire break maintenance around all structures.*

With inclusion of this standard the updated Ordinance would not interfere with the County's adopted emergency operations plan, and impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could impair implementation of, or physically interfere with the County's adopted emergency operations plan. This impact would be less than significant.

Significance Level: Less than Significant

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Comment:

Updated Ordinance

Cannabis operations are associated with high fire risk and have been responsible for structure fires in both urban and rural areas. Indoor and mixed light cultivation can utilize large amount of electricity and illegal operations have been known to install inadequate or improper electrical equipment which increase the likelihood of fire hazards. In addition, the illegal manufacturing of cannabis into other products such as extracts or concentrates have caused explosions due to the use of volatile chemicals. Many cannabis operations have been operating illegally within the RRD land use areas which are known to be high fire hazard areas due to steep slopes, dense vegetation, and insufficient emergency services due to a lack of safe emergency vehicle access.

The updated Ordinance includes standards requiring fencing, locked gates, and security measures which may be problematic for emergency efforts to extinguish fires. However, as described under criterion e, the updated Ordinance includes a standard requiring applicants to prepare and implement a fire prevention plan for construction and ongoing operations and obtain each permit required from fire services. Additionally, future cannabis projects established under the updated Ordinance would be required to comply with County Code Chapter 13 (Fire Safety Ordinance), including, but not limited to, providing emergency vehicle access, maintaining a dedicated fire-fighting water supply on-site, and installing fire sprinklers if future processing occurs at the project site.

With the addition of this standard requiring a Fire Prevention Plan, and adherence to existing fire regulations, the updated Ordinance would have a less than significant impact related to wildland fire hazards.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could increase wildland fire risk. This impact would be less than significant.

Significance Level: Less than Significant Impact

10. HYDROLOGY AND WATER QUALITY:

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Comment:

Updated Ordinance

Construction activities have the potential to degrade water quality as a result of erosion caused by earthmoving activities during construction or the accidental release of hazardous construction chemicals. The SWRCB National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ applies to construction projects that include one or more acres of soil disturbance. Future cannabis projects involving construction of permanent structures that would disturb more than one acre would be required to comply with the NPDES Construction General Permit including submittal of a Notice of Intent (NOI) package, and development and implementation

of a Storm Water Pollution Prevention Plan (SWPPP) which, in addition to other requirements, must include BMPs to protect the quality of stormwater runoff. Construction BMPs could include silt fencing, fiber rolls, stabilized construction entrances, stockpile management, and solid waste management. Post-construction stormwater performance standards are also required.

Future cannabis operations have the potential to impact water quality due to grading, pesticide application, fertilizers, and the use of irrigation. County Code Section 24-50(a) includes prohibitions on wastewater discharges to community sewer, storm drain, or natural outlets. County Code Section 24-50(b) prohibits discharge of storm water, groundwater, rainwater, street drainage, subsurface drainage, roof down spouts, exterior foundation drains, or other sources of yard drainage to a community sewer without a discharge permit. Additionally, the updated Ordinance includes the following standards which requires submittal of a wastewater management plan as well as a stormwater management plan, each including BMPs to minimize impacts to surface or ground water quality.

- A. **Wastewater Discharge.** *Applicant must submit a wastewater management plan that complies with the department's best management practices and the following requirements:*
1. *Identify the estimated amount and disposal of waste water, excess irrigation, and domestic wastewater, and provide data to support the estimate;*
 2. *Include verification of compliance with or waiver from the waste discharge requirements of the state water resource control board;*
 3. *Direct excess irrigation water or effluent to a sanitary sewer, septic, irrigation, graywater, or bio-retention treatment system;*
 4. *If discharging excess irrigation to a septic system, include a system capacity evaluation by a qualified sanitary engineer that demonstrates the system has adequate capacity;*
 5. *Dispose of domestic wastewater discharge from employees in a permanent sanitary sewer or on-site septic system demonstrated by a system capacity evaluation by a qualified sanitary engineer to have adequate capacity.*
- B. **Runoff and Storm Water Control.** *Applicant must submit with the application a storm water management plan and an erosion and sediment control plan that ensure runoff containing sediment or other waste or by-products drains to the storm drain system, waterways, or adjacent lands. The erosion control plan must include the department's best management practices for erosion control during and after construction and permanent drainage and erosion control measures pursuant to Chapter 11 [of the County Code].*

On October 17, 2017, the SWRCB adopted the Cannabis Cultivation Policy (Cannabis Policy) and the Statewide Cannabis General Order WQ 2017-0023-DWQ (Cannabis General Order) for General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities. The Cannabis Policy and Cannabis General Order include requirements to reduce impacts of waste discharges and surface water diversions associated with cannabis cultivation. The Order requires submittal of a Site Management Plan describing BMPs to protect water quality and may also require a Site Erosion and Sediment Control Plan and/or Nitrogen Management Plan, depending on size and site characteristics of the operation. Cannabis cultivators located on slopes greater than 30 percent and less than 50 percent are required to submit the Site Erosion and Sediment Control Plan prior to any new land development or alteration for cannabis cultivation. A Nitrogen Management Plan is required for all cultivation projects that exceed one acre in size. Outdoor commercial cultivation operations that disturb an area equal to or greater than 2,000 square feet of soil are required to enroll. Most commercial indoor cannabis cultivation operations are conditionally exempt but must enroll in the program to obtain documentation of their conditionally exempt status. Compliance with the Cannabis General Order is a standard condition of approval for cannabis permits in Sonoma County, including ministerial permits.

Compliance with existing regulatory requirements and the standards included in the updated Ordinance would ensure that any future cannabis projects would not violate water quality standards or waste discharge requirements and would not create substantial runoff water or otherwise degrade water quality. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could violate water quality standards or waste discharge requirements and would not create substantial runoff water or otherwise degrade water quality. This impact would be less than significant.

Significance Level: Less than Significant Impact

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Comment:

Updated Ordinance

Sonoma County contains several major groundwater basins including the Santa Rosa Plain and the Sonoma and Petaluma valleys. Over 80 percent of the county is designated in marginal Class 3 or 4 zones where groundwater supplies are limited and uncertain. Groundwater in zones 3 or 4 typically occurs in fractured bedrock rather than a porous aquifer (Sonoma County Water Agency 2007). Future cannabis facilities in rural areas would rely on either surface (rivers, lakes, and springs) or well water sources. Accordingly, the introduction of cannabis cultivation in these areas could increase the use of groundwater.

The updated Ordinance would allow commercial cannabis cultivation using both outdoor and mixed light techniques, some of which could use groundwater supplies. Water use requirements for outdoor cannabis production (25-35 inches per year)¹ are generally in line with water use for other agricultural crops, such as corn (20-25 inches per year), alfalfa (30-40 inches per year), tomatoes (15-25 inches per year), peaches (30-40 inches per year), and hops (20-30 inches per year) (CDFA 2017). The water demand factor for indoor cannabis cultivation has been roughly estimated to be between 20 to 25 inches per year (Santa Barbara 2017, BOTECH Analysis Corporation 2013).

Based on the relatively low quantities of water use (from 0.002 to 1.8 acre-feet per year), the likelihood that an individual cultivator or group of cultivators using groundwater from an alluvial aquifer would, by themselves, cause substantial groundwater overdraft is unlikely. The updated Ordinance would limit plant canopy cover for outdoor cannabis cultivation and hoop houses to a maximum of 10 percent of a parcel or contiguous parcels under the same ownership. Plant canopy in existing structures would not be limited in area. The building coverage for all new structures on parcels up to 20 acres cannot exceed 43,560 square feet (one acre). New structures on parcels greater than 20 acres in size cannot exceed 50 percent of the maximum lot coverage prescribed for the base zone. The size limitations for cultivation sites under the updated Ordinance would limit the maximum extent of water use at a particular site. Additionally, cannabis cultivation would not use more water than other crops that could be grown now under the existing regulatory setting without a permit.

Additionally, the updated Ordinance includes the following groundwater supply standards to reduce or eliminate potential impacts in areas of low groundwater availability or groundwater sustainability areas (GSA):

Groundwater Well, subject to all standards and requirements applicable to the cannabis cultivation site listed below:

¹ Inches per year can be converted to a volume by multiplying the number of inches by the area being irrigated. For example, 12 inches (1 foot) per year applied over an area of 1 acre would be a volume of 1 acre-foot; 12 inches per year applied over an area of 10,000 square feet would be a volume of 120,000 cubic feet (approximately 900,000 gallons), or 2.8 acre-feet.

- a. Documentation of a net zero water plan prepared by a qualified professional demonstrating and concluding that the proposed use would not result in a net increase in onsite groundwater use; or documentation of one of the following:
 - 1) If the groundwater well is within a Priority Groundwater Basin, then provide a hydrogeologic report prepared by a qualified professional demonstrating and concluding that the commercial cannabis use will not result in or exacerbate any of the following conditions of a basin or aquifer, consistent with the California Sustainable Groundwater Management Act (SGMA):
 - i. Chronic lowering of groundwater levels;
 - ii. Reduction of groundwater storage;
 - iii. Seawater intrusion;
 - iv. Degraded water quality;
 - v. Land subsidence;
 - vi. Depletions of interconnected surface water.
 - 2) If the groundwater well is not located in a Priority Ground Water Basin, then demonstrate compliance with subdivisions b. through d., below, of subsection 4. of section 38.12.140.
- b. If the groundwater well is within 500 feet of a blue-line stream, then documentation of one of the following:
 - 1) A net zero water plan prepared by a qualified professional demonstrating and concluding that the proposed use would not result in a net increase in onsite groundwater use;
 - 2) The groundwater well is within 500 feet of the Russian River or Dry Creek; or
 - 3) The groundwater well is within Groundwater Availability Zone 1 or 2.
- c. If the groundwater well is within Groundwater Availability Zone 3 or 4, then documentation of a dry season well yield test demonstrating minimum yield to support the combined groundwater use of existing and proposed uses in accordance with all of the following:
 - 1) Minimum yield to support residential water use must be established in accordance with Sec. 7-12 of this code;
 - 2) Minimum yield to support all other uses must equal five (5) gallons per minute per one (1) acre foot of annual groundwater demand demonstrated through a 12 hour test;
 - 3) The test must be conducted from July 15 to October 1, or during an extended test period established by the agricultural commissioner due to delay of rainy season.
 - 4) The test must be performed by or under the direction of a licensed water well drilling contractor (C57), pumping contractor (C61/D21), a registered civil engineer, or a registered geologist.
- d. Protection Against Well Interference. If the groundwater well is within Groundwater Availability Zone 3 or 4, then documentation of an assessment of drawdown for all non-project wells within 500 feet of the well demonstrating maximum drawdown of 10 feet over a 24 hour simulation period, using industry standard method(s) appropriate to the project aquifer. The assessment must be performed by or under the direction of a licensed water well drilling contractor (C57), pumping contractor (C61/D21), a registered civil engineer, or a registered geologist.

- e. **Trucked Water.** Trucked water for cannabis cultivation permitted under this chapter only in response to and during a local, state, or federally declared emergency or disaster, which causes all other water supplies to be unavailable or inadequate for cannabis cultivation purposes.

Furthermore, the updated Ordinance requires groundwater wells used for cannabis projects to be equipped with a calibrated water meter and sounding tube or other water level sounding device and marked with a measuring reference point. Water meters must be submitted to the permit and resource management department at least once every 5 years. Project applicants would be required to submit an annual report to the Agricultural Commissioner by January 31 of each year following the date of the permit issuance. The annual report must include quarterly data on water meter readings, total quantity of water pumped from each well, and static water levels since the date of permit issuance, or over the immediately preceding twelve (12) month period, whichever is less. Finally, under the updated Ordinance the applicant would be required to record an easement to provide Sonoma County personnel access to an onsite groundwater well serving the proposed use and required monitoring well to collect water meter readings and groundwater level measurements.

Based on the standards listed above, cultivation operations in the most critical water areas (Zones 3 and 4) as well as those located in a GSA or critical watershed would be required to report on groundwater usage and demonstrate “no net increase” by using all available water conservation techniques. With the inclusion of this standard, the updated Ordinance would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be less than significant.

Significance Level: Less than Significant Impact

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:**
 - i. **result in substantial erosion or siltation on- or off-site?**

Comment:

Updated Ordinance

The updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated permanent structures on agriculturally designated parcels in Sonoma County, the construction of which may result in alteration of existing drainage patterns. Direct impacts of all types of cannabis cultivation could involve limited grading activities to make a site suitable for cultivation (e.g., tilling), including potential development of cannabis-related structures. The County’s watersheds are defined by the topography of the county, and landscape-level changes to the existing drainage patterns would not occur.

As described above in Section 4, *Biological Resources*, the updated Ordinance includes standards to limit structures to outside the RC and BH combining zones and requires that outdoor cultivation conforms to wetland and riparian corridor setbacks. Construction grading activities would be subject to a grading permit, which would require installation of adequate stormwater treatment measures to prevent soil erosion during construction, such as silt fencing, straw wattles, and soils discharge controls at construction site entrance(s). Compliance with the County grading regulations is aimed at

capturing and treating all project runoff onsite, thereby reducing the potential for soil erosion and sediment delivery from the site. These standards would ensure that future cannabis cultivation would not occur such that substantial erosion or siltation would impact an existing stream, river, drainage channel or wetland feature. In addition, the updated Ordinance includes standards for grading, runoff, and stormwater control as well as limit proposed cultivation sites to less than 15 percent slopes and requires runoff controls. With inclusion of these standards, cultivation operations developed under the updated Ordinance would not substantially alter drainage patterns resulting in substantial erosion and siltation. Drainage pattern alterations related to outdoor cannabis cultivation under the updated Ordinance would be minimal compared to conditions under the existing ordinance because other crops can be grown now without a permit. Therefore, impacts related to erosion and siltation on- and off-site would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be less than significant.

Significance Level: Less than Significant Impact

- ii. **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**
- iii. **create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

Comment:

Updated Ordinance

The updated Ordinance would allow for new structures on parcels greater than 20 acres in size, restricted to 50 percent of the maximum lot coverage prescribed for the base zone. As a result, the updated Ordinance could lead to a substantial expansion of permanent structures on agricultural parcels and thus alter existing drainage patterns by introducing new impervious surfaces. As described above under criterion a, the updated Ordinance includes standards which require preparation of a stormwater management plan and compliance with BMPs to minimize impacts to surface water runoff which would result in on- or offsite, exceed capacity of drainage systems, or provide sources of polluted runoff. These BMPs would require project applicants to direct excess irrigation water or effluent to a sanitary sewer, septic, irrigation, graywater, or bio-retention treatment system and implement permanent drainage and erosion control measures pursuant to County Code Chapter 11. Compliance with these requirements would ensure that stormwater would be captured and retained on-site, and would minimize the risks of flooding or of excess stormwater in the local stormwater drainage system. Therefore, impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in flooding or exceed capacity of the local stormwater drainage system. This impact would be less than significant.

Significance Level: Less than Significant Impact

iv. Impede or redirect flood flows?

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Comment:

Updated Ordinance

As discussed above, construction associated with cannabis cultivation may result in the addition of new impervious surfaces. However, the updated Ordinance includes standards requiring future cannabis projects adhere to appropriate County setbacks from wetlands and riparian corridors. Sonoma County flood hazard zones are applied consistent with the Special Flood Hazard Areas depicted by the Federal Emergency Management Agency (FEMA). The F1 zone does not allow development of any new structures related to cannabis uses. The F2 zone would allow development of structures that are above the flood elevation. Additionally, no imported fill is allowed in the 100-year flood zone. Implementation of these structural requirements and the standards for drainage BMPs during construction and operation included in the update Ordinance would ensure that existing drainage patterns are maintained such that flood flows are not diverted or redirected.

Areas that could be possibly inundated by a dam failure are shown in Figure 8.7 of the Sonoma County Hazard Mitigation Plan. Potentially inundated areas include some valley floor areas which are primarily agriculturally zoned. Future cannabis sites would be required to comply with FEMA standards of development in the F1 and F2 zones. The updated Ordinance would not apply to the coastal zone and would therefore not place cultivation sites at risk from tsunami. Typically, outdoor cultivation does not involve the scale of grading and changes in topography that would affect or result in flooding. Additionally, all new structures would conform to building and setback requirements in the updated Ordinance and County Code. Therefore, impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could impede or redirect flood flows. Additionally, the proposed General Plan amendment would not place any new structures in flood hazard, tsunami, or seiche zones such that there is a potential for release of pollutants due to project inundation. These impacts would be less than significant.

Significance Level: Less than Significant Impact

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Comment:

Updated Ordinance

As described above under criterion (a), compliance with the Cannabis General Order is a standard condition of approval for all cannabis permits. The Cannabis General Order includes requirements to reduce impacts of waste discharges and surface water diversions associated with cannabis cultivation. The Order requires submittal of a Site Management Plan describing BMPs to protect water quality and may also require a Site Erosion and Sediment Control Plan and/or Nitrogen Management Plan, depending on size and site characteristics of the operation. Outdoor commercial cultivation operations that disturb an area equal to or greater than 2,000 square feet of soil are required to enroll. Most commercial indoor cannabis cultivation operations are conditionally exempt but must enroll in the program to obtain documentation of their conditionally exempt status.

Additionally, a future cannabis project including permanent structures that would disturb more than one acre would be required to comply with the NPDES Construction General Permit, which would minimize and avoid water quality impacts associated with soil erosion and stormwater runoff from project sites. Compliance with existing regulatory requirements and the standards included in the

updated Ordinance would ensure that any future cannabis projects would conflict with or obstruct a water quality control plan.

Sonoma County contains several major groundwater basins including the Santa Rosa Plain and Sonoma and Petaluma valleys. Over 80 percent of the County is designated in marginal Class 3 or 4 zones where groundwater supplies are limited and uncertain. In September 2014, the California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Known as the Sustainable Groundwater Management Act (SGMA), the legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention when necessary to protect the resource. The Sonoma Valley Subbasin is considered to have a high priority ranking by the Department of Water Resources (DWR), while the Santa Rosa Plain and Petaluma Valley Basins are ranked medium priority. All of these basins would therefore be subject to the SGMA and are required to submit a Groundwater Sustainability Plan (GSP). The Sonoma Valley Groundwater Sustainability Agency has completed a draft GSP for the Sonoma Valley Subbasin although the draft has not been submitted to DWR for review. As described above under criterion (b), the updated Ordinance includes a standard requiring future cultivation operations located in a high priority basin or an area for which a groundwater management plan or groundwater sustainability plan has been adopted to submit a hydrogeologic report prepared by a qualified professional demonstrating that the use will not impede the basin or aquifer from meeting an adopted groundwater sustainability goal. Therefore, future cannabis cultivation projects would be required to comply with GSPs, and the updated Ordinance would not conflict with or obstruct implementation of a sustainable groundwater management plan. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant.

Significance Level: Less than Significant Impact

11. LAND USE AND PLANNING:

Would the project:

a) Physically divide an established community?

Comment:

Updated Ordinance

The updated Ordinance would not result in the addition of structures that could physically divide communities. New permitted cannabis cultivation sites would be located in rural areas of Sonoma County, on private properties designated for agricultural and resource use. Cannabis structures would be consistent with existing agricultural uses and would not be large enough to divide existing communities. The updated Ordinance also would not allow for construction of major transportation facilities or the removal of a primary access route (such as a road or bridge) that would impair mobility within an established community or between a community and outlying areas. Therefore, it would not physically divide an established community.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances

discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the addition of structures that could physically divide communities. It would also not allow for the construction of major transportation facilities or the removal of a primary access route (such as a road or bridge) that would impair mobility within an established community or between a community and outlying areas. This impact would be less than significant.

Significance Level: No Impact

b) 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?

Comment:

Updated Ordinance

The updated Ordinance would amend the existing Sonoma County Code of Ordinances to allow expanded cannabis cultivation and more ministerial permitting of cultivation sites. As explained in Section 2, *Agriculture and Forest Resources*, the updated Ordinance could allow a potential maximum of up to 65,753 acres of future commercial cannabis cultivation in unincorporated Sonoma County if all land covered under the updated Ordinance was converted to cannabis cultivation operations. This would be the potential maximum buildout and it is extremely unlikely that all available land would be put into cannabis cultivation. Upon approval of the proposed project, new permitted cultivation sites and associated structures would be required to comply with the updated Ordinance. They would also be required to comply with other applicable requirements in the Sonoma County Zoning Code, including zoning designations adopted for the protection of Biotic Resource areas and Riparian Corridors. Consistent with these zoning designations, the updated Ordinance would continue to prohibit cannabis cultivation sites within sensitive environmental resource areas. Therefore, the updated Ordinance would be consistent with the Sonoma County Code of Ordinances as amended by the project.

As discussed below, in addition to adoption of an updated Ordinance, the County would amend the County's General Plan 2020 as part of the project, redefining agriculture as inclusive of cannabis use. In Objective AR-4.1 in the Agricultural Resources Element, the General Plan currently defines "agriculture" as "[t]he commercial production of food, fiber, and plant material, or the raising and maintaining of horses, donkeys, mules, and similar livestock." Cannabis cultivation would explicitly be added to this list of agricultural activities in the County. This action would affirm that additional cannabis cultivation allowed under the updated Ordinance is consistent with the purposes of agricultural zoning districts and agricultural land use designations. Because the updated Ordinance would not result in conversion of agricultural land to non-agricultural uses, it would not have the potential to conflict with goals, objectives, and policies in the General Plan 2020 to preserve farmland. For example, Objective AR-2.1 is to limit the intrusion of urban development into agricultural areas (Sonoma County 2016a). Objective AR-3.1 also seeks to avoid the conversion of agricultural lands to residential or nonagricultural commercial uses. The updated Ordinance would allow for expanded cannabis cultivation structures, but not urban development or nonagricultural commercial uses. Therefore, the updated Ordinance would be potentially consistent with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including in the Sonoma County General Plan and Code of Ordinances. Refer to item 3.d for a discussion of the effect of cannabis odors on off-site properties, and to item 13.a for a discussion of noise impacts from cannabis operations on sensitive receptors.

General Plan Amendment

The proposed General Plan amendment would redefine agriculture as inclusive of cannabis cultivation. With approval of this amendment, cannabis cultivation in the County would be explicitly consistent with the purposes of agricultural land use designations and zoning districts and would not affect cannabis cultivation uses in industrial zones. In addition, the proposed redefinition of agriculture would not, in itself, allow for additional cannabis cultivation beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As a result, it would not result in land use change that could potentially conflict with General Plan policies to preserve farmland.

Therefore, the proposed amendment would be consistent with the General Plan, as amended, and the Sonoma County Zoning Code. This impact would be less than significant.

Significance Level: Less than Significant Impact

12. MINERAL RESOURCES:

Would the project:

- a) 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?
- b) 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?

Comment:

Updated Ordinance

Sonoma County has adopted the Aggregate Resources Management Plan (ARMP) that identifies aggregate resources of statewide or regional significance (areas classified as MRZ-2 by the State Geologist; Sonoma County 1994). All mineral resources sites of local, regional, or state significance in Sonoma County are located in the Mineral Resource Combining Zone (MR) district. This zone allows mining with the issuance of a surface mining use permit and the approval of a reclamation plan but restricts other incompatible uses. The MR district uses preempt the uses normally allowed in the base zone.

An impact to mineral resources would occur if a project would impact the future use or availability of an oil drilling district, a surface mining district, a mineral resource zone, or a state designated oil field. Generally, cannabis cultivation is a farming practice that would not result in disturbance of resources below the top few feet of soil. Additionally, most of the agriculturally zoned sites included under the updated Ordinance are either currently in agricultural production or have been previously disturbed due to development or other uses. As such, most cultivation operations envisioned by the updated Ordinance would have no impact on the underlying mineral resources of the site.

The updated Ordinance allows for construction of new structures associated with cannabis cultivation. Many of these structures would be hoop houses, which are temporary in nature and do not require substantial ground disturbance to construct. The updated Ordinance would allow up to 43,560 square feet (1 acre) of new permanent structures on parcels up to 20 acres, and on parcels greater than 20 acres, new building coverage would be limited to 50 percent of the maximum lot coverage prescribed by the base zone. The construction of new structures on parcels located in the MR combining district has the potential to result in some loss of availability of a known mineral resource. However, Sonoma County's General Plan Open Space and Resource Conservation Element, Policy OSRC-13c, requires review of projects that are on or near sites designated as part of the MR district. Therefore, a future cannabis cultivation project near potential mineral resources would require additional review prior to approval. With adherence to existing policies, the updated Ordinance would not result in significant impacts regarding the unanticipated loss of availability of resources. Impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in significant impacts regarding the unanticipated loss of availability of resources. These impacts would be less than significant.

Significance Level: Less than Significant Impact

13. NOISE:

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs (e.g., the human ear). Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Caltrans 2013a).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (Hz) and less sensitive to frequencies around and below 100 Hz (Kinsler, et al. 1999). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as a doubling of traffic volume, would increase the noise level by 3 dB; similarly, dividing the energy in half would result in a decrease of 3 dB (Crocker 2007).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in sound level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions. Noise levels from a point source (e.g., construction, industrial machinery, ventilation units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013a).

The impact of noise is not a function of sound level alone. The time of day when noise occurs and the duration of the noise are also important. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}); it considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. The L50 is the sound level exceeded 50 percent of the time or 30 minutes in any hour; this is the median noise level.

Would the project:

- a) **Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Comment:

Updated Ordinance

Table NE-2 in the Sonoma County General Plan’s Noise Element sets standards for maximum allowable exterior noise (Sonoma County 2016a). These standards are reproduced in Table 6. They limit the noise level that may be exceeded for a given amount of time in an hour, as measured at the exterior of any noise-sensitive land use.

**Table 6.
 Maximum Allowable Exterior Noise Exposures for Non-transportation Noise Sources**

Hourly Noise Metric, dBA ¹	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
---------------------------------------	--------------------------------	----------------------------------

L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (4 minutes 48 seconds in any hour)	60	55
L02 (72 seconds in any hour)	65	60

¹ The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level.

The noise standards shown in Table 6 may be adjusted based on site-specific conditions, such as a very high or very low ambient noise level, specific types of noise (e.g., dog barking, simple tone noises), or short-term noise sources permitted to occur no more than six days per year (e.g., concerts, special events).

Neither the General Plan nor the County Code of Ordinances establishes numerical noise thresholds or standards for temporary construction activities or groundborne vibration.

Construction Noise

The construction of commercial cannabis operations permitted under the updated Ordinance would temporarily increase ambient noise levels in the vicinity of cultivation sites. Activities that would generate noise include grading for cultivation, the construction of structures, architectural coating, and paving of on-site driveways and roadways. Table 7 shows estimated noise levels from equipment that may be used in the construction of cannabis cultivation sites, based on reference noise levels published by the Federal Transit Administration. Noise levels are provided for a standard distance of 50 feet from the source equipment and also estimated at 300 feet and 1,000 feet, assuming a standard noise reduction factor of 6 dBA per doubling of distance from the point source. A 50-foot distance is appropriate for estimating the worst-case exposure of sensitive receptors to noise from construction of indoor cannabis structures, which would be subject to setback standards in the applicable zoning district(s). It is assumed that construction equipment would typically be located around the center of cultivation sites, at a greater distance from the nearest sensitive receptor. A 300-foot distance corresponds to the minimum mandatory setback in the updated Ordinance from outdoor or hoophouse cultivation sites to neighboring residential structures. A 1,000-foot distance is the minimum mandatory setback from K-12 schools, public parks, Class 1 Bikeways, childcare centers, and drug/alcohol treatment centers. In addition, this analysis assumes that the construction of cannabis structures would not involve the use of pile drivers, which generate particularly high noise levels.

**Table 7.
Estimated Noise Levels from Construction Equipment**

Equipment	Estimated Noise Level (dBA)		
	At 50 Feet from Source	At 300 Feet from Source	At 1,000 Feet from Source
Air Compressor	80	64	54
Backhoe	80	64	54
Concrete Mixer	85	69	59
Dozer	85	69	59
Generator	82	66	56
Grader	85	69	59
Loader	80	64	54
Paver	85	69	59
Roller	85	69	59
Truck	84	62	58

Source: FTA 2018

New cannabis cultivation sites would be located in rural areas of the County where nearby sensitive receptors would be sparse, if present at all. In the event that sensitive receptors occur nearby, mandatory setbacks in the updated Ordinance would ensure that such land uses are buffered from outdoor cannabis and hoop house cultivation sites. As shown in Table 7, noise levels from individual construction equipment would reach an estimated 85 dBA at a distance of 50 feet from the source, 69 dBA at a distance of 300 feet, and 59 dBA at a distance of 1,000 feet. Outdoor and hoop house cultivation sites would be sited farther (1,000 feet) from K-12 schools, public parks, Class 1 Bikeways, childcare centers, and drug/alcohol treatment centers, substantially reducing their exposure to construction noise. The combined use of multiple pieces of equipment would generate higher average noise levels than those produced by individual pieces of equipment.

Although the rural siting of cultivation sites and mandatory setbacks would reduce the exposure of sensitive receptors to construction noise, it is expected that some construction activity would generate perceptible increases in ambient noise at sensitive receptors. Noise levels exceeding 69 dBA from construction equipment are more typical of urban areas near arterial roadways, which would exceed existing daytime ambient noise levels in rural areas of Sonoma County. Construction also could occur in more sensitive evening or nighttime hours unless otherwise prohibited. The County has not set standards for construction noise, so it would not exceed local standards; however, construction noise could expose sensitive receptors to a substantial increase in ambient noise levels.

Mitigation Measure NOISE-1 would be required to reduce construction noise levels at cannabis cultivation sites located within 1,000 feet of sensitive receptors. Beyond this distance, construction noise would attenuate to a level that does not have a substantial adverse effect on sensitive receptors. Implementation of Mitigation Measure NOISE-1 would reduce the impact of construction noise to less than significant.

On-Site Operational Noise

While operating, cannabis cultivation sites would include several sources of on-site noise. Generators could be used to provide power. However, the updated Ordinance would prohibit the use of generators except during emergencies, which would minimize the amount of exposure of sensitive receptors to generator noise. Outdoor cultivation would involve the use of small-scale farming equipment, such as small tractors and rototillers (Sonoma County 2019). Such equipment would

operate only a few times per season during the daytime. The small scale and limited timing of such equipment, combined with mandatory setbacks from cannabis cultivation sites, would minimize the exposure of sensitive receptors to noise from outdoor cultivation.

Mixed light and indoor cultivation structures would require commercial heating, ventilation, and cooling (HVAC) units to maintain climate control. Because these structures would operate 24 hours per day, HVAC units would generate noise during evening and nighttime hours (i.e., normal sleeping hours). HVAC units can generate a range of noise levels depending on the brand and the presence or lack of shielding. For a recent cannabis cultivation project in Sonoma County, the manufacturer's specifications for the commercial HVAC unit to be installed outdoors indicated a noise level of 75 dBA at a distance of 30 feet (Sonoma County 2019). Shielding with a sound barrier around the HVAC unit would decrease this noise level by approximately 10 dBA, resulting in 65 dBA at a distance of 30 feet. HVAC equipment associated with greenhouses, indoor cultivation buildings, and other structures at cannabis operations would be set back from property lines in accordance with applicable yard requirements in the base zone or combining district.

As shown in Table 6, the County has set basic noise standards of 50 dBA L50 during daytime hours and 45 dBA L50 during nighttime hours. Assuming that HVAC noise attenuates by a standard rate of 6 dBA per doubling of distance from a point source, unshielded HVAC equipment located within approximately 1,000 feet of the nearest offsite sensitive receptors could generate noise exceeding the more stringent nighttime standard of 45 dBA L50. With shielding that reduces HVAC noise by 10 dBA, equipment could still exceed the nighttime standard within a distance of 300 feet from sensitive receptors. To avoid exceeding the County's nighttime noise standard at mixed light and indoor cultivation structures, Mitigation Measure NOISE-2 is necessary to require a sufficient setback between HVAC equipment and sensitive receptors, as well as shielding of equipment where appropriate.

The updated Ordinance also would remove an existing prohibition on special events at cannabis cultivation sites. The County would permit such special events in the future on a case-by-case basis, pursuant to Chapter 26, when proposed by applicants. Special events could include cannabis site tours, tastings, and promotional events, as approved under a County permit. Permitted special events would generate periodic on-site noise from human conversations and potentially from amplified sound (e.g., music). The County's Noise Element states that special events with amplified sound at wineries "can produce unacceptable noise levels, especially during evening hours" (Sonoma County 2016a). It is assumed that special events at cannabis cultivation sites could result in similar noise levels, which may exceed the County's maximum allowable exterior noise levels at nearby sensitive receptors. Mitigation Measure NOISE-3 would be required to restrict the use of amplified sound during special events near sensitive receptors.

On-site operational noise from cannabis cultivation sites would be less than significant with mitigation incorporated to reduce HVAC noise and amplified sound to acceptable levels.

Traffic Noise

New cannabis cultivation sites would be located in rural areas of the County outside the Coastal Zone, where existing traffic noise levels are relatively low (except on highways). In such areas, projects would not result in a significant long-term increase in traffic noise unless they generate a high volume of vehicle trips. A doubling of the existing traffic volume would be necessary to increase traffic noise by a perceptible level of 3 dBA. The updated Ordinance would allow for expanded cannabis cultivation, which would generate additional traffic noise than under the existing Ordinance. Vehicle trips to and from cultivation sites would include trucks, which generate higher noise levels than passenger cars. However, cannabis cultivation is a land use that typically generates a low number of average peak-hour trips. Previous cannabis cultivation projects in Sonoma County have been estimated to generate average peak-hour vehicle trips below levels that would require preparation of a traffic impact study based on the County's Guidelines for Traffic Impact Studies (Sonoma County 2016b, 2019).

The updated Ordinance also would allow for future approval of special events at cannabis cultivation sites, which would generate short-term increases in traffic noise at nearby sensitive receptors. The County's Noise Element finds that special events at wineries in Sonoma County have resulted in traffic problems (Sonoma County 2016a). This may also be the case for special events at cultivation sites. However, special events would occur infrequently, would be subject to ministerial permits, and would not affect traffic noise on typical days. As discussed above, it would take a high volume of vehicle trips to significantly increase traffic noise in rural areas where existing traffic noise is relatively low. Therefore, the updated Ordinance would have a less than significant impact on traffic noise.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could generate noise perceptible to sensitive receptors. This impact would be less than significant.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure NOISE-1 Construction Noise Reduction:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirements as best management practices for cannabis cultivation sites to reduce the exposure of sensitive receptors to construction noise:

"Construction activities for all cannabis cultivation sites located within 1,000 feet of sensitive receptors (including residences, schools, hospitals, nursing homes, churches, libraries, and long-term medical or mental care facilities) shall be restricted as follows:

All plans and specifications or construction plans shall include the following notes:

- a) All internal combustion engines used during construction of this project shall be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code. Equipment shall be properly maintained and turned off when not in use.
- b) Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 a.m. and 5:00 p.m. on weekdays and 9:00 a.m. and 7:00 p.m. on weekends and holidays. If work outside the times specified above becomes necessary, the applicant shall notify the PRMD Project Review Division as soon as practical.
- c) There will be no startup of machines nor equipment prior to 7:00 a.m., Monday through Friday or 9:00 a.m. on weekends and holidays; no delivery of materials or equipment prior to 7:00 a.m. nor past 5:00 p.m., Monday through Friday or prior to 9:00 a.m. nor past 7:00 p.m. on weekends and holidays and no servicing of equipment past 7:00 p.m., Monday through Friday, or weekends and holidays. A sign(s) shall be posted on the site regarding the allowable hours of construction, and including the developer- and contractors mobile phone number for public contact 24 hours a day or during the hours outside of the restricted hours.
- d) Construction maintenance, storage and staging areas for construction equipment shall avoid proximity to residences to the maximum extent practicable. Stationary construction equipment, such as compressors, mixers, etc., shall be placed away from residential areas and/or provided with acoustical shielding. Quiet construction equipment shall be used when possible.
- e) The developer shall designate a Project Manager with authority to implement the mitigation prior to issuance of a building/grading permit. The Project Managers 24-hour mobile phone number shall be conspicuously posted at the construction site. The Project Manager shall determine the

cause of noise complaints (e.g., starting too early, faulty muffler, etc.) and shall take prompt action to correct the problem.”

Mitigation Measure NOISE-2 HVAC Noise Reduction:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites to reduce the exposure of sensitive receptors to HVAC noise:

“All cannabis cultivation site plans that include outdoor HVAC equipment shall locate such equipment at a distance of at least 300 feet from the nearest offsite sensitive receptor. If HVAC equipment is located within 1,000 feet of the nearest sensitive receptor, site plans shall include shielding of such equipment. Shielding shall consist of sound barriers rated to reduce HVAC noise by at least 10 dBA.”

Mitigation Measure NOISE-3 Special Events Noise Reduction:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, to reduce the exposure of sensitive receptors to amplified noise during permitted special events:

“Ministerial permits approved for special events at cannabis cultivation sites located within 1,000 feet of sensitive receptors shall prohibit the use of amplified sound outdoors after 10 p.m. During daytime hours between 7 a.m. and 10 p.m., amplified sound at special events shall not generate noise levels exceeding the maximum allowable exterior noise levels shown in Table NE-2 in the Sonoma County General Plan at sensitive receptors.”

Mitigation Monitoring:

Mitigation Monitoring NOISE-1 Construction Noise Reduction:

PRMD Project Review Division staff shall ensure that the measures are listed on all site alteration, grading, building or improvement plans, prior to issuance of grading or building permits. PRMD staff shall inspect the site prior to construction to assure that the signs are in place and the applicable phone numbers are correct. Any noise complaints will be investigated by PRMD staff. If violations are found, PRMD shall seek voluntary compliance from the permit holder, or may require a noise consultant to evaluate the problem and recommend corrective actions, and thereafter may initiate an enforcement action and/or revocation or modification proceedings, as appropriate. (Ongoing)

Mitigation Monitoring NOISE-2 HVAC Noise Reduction:

PRMD Project Review Division staff shall ensure that HVAC noise reduction measures are included as needed on all building or improvement plans, prior to issuance of building permits. (Ongoing)

Mitigation Monitoring NOISE-3 Special Events Noise Reduction:

Permit Sonoma staff shall ensure that measures to reduce amplified noise are included, as needed, as conditions of approval in ministerial permits issued to cannabis cultivation operators for special events. Permit Sonoma staff may inspect sites during permitted special events to assure that noise reduction measures are being appropriately implemented. Any noise complaints will be investigated by Permit Sonoma staff. If violations are found, PRMD may initiate an enforcement action, as appropriate. (Ongoing)

b) Generate excessive groundborne vibration or groundborne noise levels?

Comment:

Updated Ordinance

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. Vibration amplitudes are often expressed in terms of inches per second of peak particle velocity (PPV). Particle velocity is the velocity at which the ground moves. PPV is defined as the greatest magnitude of particle velocity associated with a vibration event.

Heavy construction equipment for cannabis cultivation sites approved under the updated Ordinance, such as bulldozers, loaded trucks, and rollers, could generate groundborne vibration. With mandatory setbacks, neighboring residential structures that may be sensitive to vibration would be located no closer than 300 feet from outdoor and hoophouse cultivation sites. The distance from indoor and greenhouse cultivation sites to neighboring structures would depend on setback standards in the base zone and applicable combining districts. Table 8 estimates vibration levels at a reference distance of 25 feet and at 300 feet from the equipment.

**Table 8.
Estimated Vibration Levels from Construction Equipment**

Equipment	Estimated Vibration Level (PPV)	
	At 25 Feet from Source	At 300 Feet from Source
Vibratory Roller	0.210	0.137
Large Bulldozer	0.089	0.006
Loaded Trucks	0.076	0.005

Source: Caltrans 2013b

As shown in Table 8, it is estimated that construction at outdoor and hoophouse cultivation sites would generate vibration levels of up to 0.014 PPV at the nearest sensitive receptors, if vibratory rollers are used for paving of roadways or driveways. At indoor and greenhouse cultivation sites, it is assumed that construction equipment could be located as close as approximately 25 feet from neighboring habitable structures on offsite properties, generating vibration levels of up to 0.21 PPV. Vibration-generating equipment would be operated on a transient basis during construction. A vibration level of up to 0.21 PPV would not exceed 0.25 PPV, Caltrans' recommended criterion for distinctly perceptible vibration from transient sources (Caltrans 2013b). Mitigation Measure NOISE-1 also would limit construction activity to daytime hours, which would prevent the exposure of sensitive receptors to vibration during late evening and nighttime hours. As a result, it would not result in substantial annoyance to people of normal sensitivity. In addition, the vibration level would not exceed the Caltrans' recommended criterion of 0.5 PPV for potential damage of historic and old buildings from transient vibration sources. Therefore, the impacts of vibration on people and structures would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction of additional cannabis projects that could generate vibration perceptible to sensitive receptors. This impact would be less than significant.

Significance Level: Less than Significant Impact

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?**

Comment:

Updated Ordinance

As discussed in the 2016 ND, where a cannabis cultivation site is located near an airport the State Aeronautics Code requires the CNEL noise metric to be used when evaluating the noise impacts of aircraft operations. Commercial and service uses, wholesale trade, warehousing, light industrial are considered acceptable up to a CNEL of 65. A review of the CNEL contours for airports in Sonoma County indicates that the 65 CNEL occurs in close proximity to the runway approach and take-off

zones and does not extend extensively into surrounding lands. Therefore, the updated Ordinance would not result in the exposure of workers at cultivation sites to excessive noise levels from aircraft. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the exposure of additional workers at cultivation sites to excessive noise levels from aircraft. This impact would be less than significant.

Significance Level: Less than Significant Impact

14. POPULATION AND HOUSING:

Would the project:

- a) **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)?**

Comment:

Updated Ordinance

The updated Ordinance would allow for additional commercial cannabis cultivation in agricultural and resource zoning districts, which could increase the number of employees working in the Bay Area. New employees at cannabis sites could increase demand for housing in this region. However, it is anticipated that new employees would primarily be existing residents in the Bay Area, so they would not induce substantial indirect population growth. Many of the employees necessary during cannabis harvest and cultivation are already present within the County and adjoining counties, serving existing cultivation sites. No new residential subdivisions or housing would be facilitated under the updated Ordinance. Therefore, the updated Ordinance would not directly or indirectly result in substantial population growth. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation that attracts new employees to the County, beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not directly or indirectly result in population growth. This impact would be less than significant.

Significance Level: Less than Significant Impact

- b) **Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?**

Comment:

Updated Ordinance

As discussed in the 2016 ND, prior to adoption of the existing Ordinance, cannabis cultivation had displaced a number of housing units to create “grow houses” and in many instances degraded homes with indoor cultivation leading to mold and mildew in the homes. The updated Ordinance would maintain an existing prohibition on cultivation within a residence or any structure with a residential occupancy, which would prevent conversions of residential space. New cannabis structures could potentially involve repurposing of existing commercial structures on agricultural land, such as barns

and storage facilities, but they would not displace existing housing units. Therefore, therefore, the updated Ordinance would have a less than significant impact associated with displacement of housing.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in conversions of residential space into cannabis cultivation sites. This impact would be less than significant.

Significance Level: Less than Significant Impact

15. PUBLIC SERVICES:

Would the project:

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:**

- i. **Fire protection?**

Comment:

Updated Ordinance

The updated Ordinance would allow for additional cannabis structures and outdoor cultivation sites, which would be served by fire protection providers. To minimize the risk of fires, permitted commercial cannabis operations would be subject to the California Fire Code. Title 14 of the California Code of Regulations (CCR) sets forth development standards for emergency access, fuel modification, setbacks, signage, and water supply. In addition, the Sonoma County Code requires that all new development meet Fire Safe Standards (Chapter 13). The County Fire Marshal would review individual project applications for cannabis cultivation and require that they comply with Fire Safe Standards, including fire protection methods such as sprinklers in buildings, alarm systems, extinguishers, vegetation management, hazardous materials management, and management of flammable or combustible liquids and gases. Additionally, the updated Ordinance includes the following standard to adhere to Fire Code requirements:

Fire Code Requirements. *The applicant must prepare and implement a fire prevention plan for construction and ongoing operations and obtain each permit required from fire services. The fire prevention plan must include emergency vehicle access and turn-around at the facility site, vegetation management and fire break maintenance around all structures.*

Although the updated Ordinance would allow for additional commercial cannabis cultivation, which could increase the number of employees working in Sonoma County, it is anticipated that new employees would primarily be existing residents in the Bay Area, so they would not induce substantial indirect population growth. As discussed in Section 14, *Population and Housing*, the updated Ordinance would not result in new residential subdivisions or housing. Therefore, it would not substantially increase demand for governmental services such as fire protection, resulting in the need for new or expanded facilities. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation

would not, in itself, allow for additional outdoor cultivation sites or cannabis structures in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in additional land uses that require fire protection services. This impact would be less than significant.

Significance Level: Less than Significant Impact

ii. Police?

Comment:

Updated Ordinance

Permitted cannabis cultivation sites may be at a higher risk of crime because of the high value of the crop (CDFA 2017). However, security measures at cultivation sites reduce the risk of robbery and burglary attempts. The updated Ordinance would maintain an existing requirement that applicants prepare and implement site security plans, which include motion-sensor cameras, surveillance video, and lighting and alarms. Fencing of outdoor and hoop house cultivation areas with locking gates also would be required. While these measures would not eliminate the risk of crime that requires police resources, they would minimize the risk to the extent feasible. Furthermore, the updated Ordinance would expand the County's allowance of lawful cannabis cultivation, which places less demand on police resources than illegal cultivation sites with black-market cannabis (CDFA 2017). As discussed in item 15.a, the updated Ordinance also would not result in a substantial increase in demand for governmental services, to the extent that new or expanded facilities would be necessary. Therefore, this impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in additional uses that require police protection services. This impact would be less than significant.

Significance Level: Less than Significant Impact

iii. Schools, parks, or other public facilities?

Comment:

Updated Ordinance

The updated Ordinance would not allow for residential development that increases demand for school and park facilities. Permitted cannabis cultivation sites would not be subject to impact mitigation fees for school and parks. The updated Ordinance also would not result in a substantial increase in employment (refer to item 14.a) that could indirectly lead to an increase in school-age children of employees. New cannabis cultivators would be required to pay connection fees for sewer and water services to offset potential impacts to these service facilities within their respective spheres of influence. Therefore, the updated Ordinance would not necessitate the construction of new or expanded schools, parks, or other public facilities. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in additional uses that require the payment of impact fees for the use of public facilities. This impact would be less than significant.

Significance Level: Less than Significant Impact

iv. Parks?

Comment:

Refer to item 15.a.iii.

Significance Level: Less than Significant Impact

v. Other public facilities?

Comment:

Refer to item 15.a.iii.

Significance Level: Less than Significant Impact

16. RECREATION:

Would the project:

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Comment:

Updated Ordinance

The updated Ordinance would not allow for new housing that could significantly increase demand for recreational facilities. As discussed in item 14.a, additional employment at new cannabis facilities permitted would not induce substantial indirect population growth. Therefore, the updated Ordinance would not cause a substantial increase in the use of existing recreational facilities, and this impact would be less than significant.

It should also be noted that provisions in the updated Ordinance and mitigation measures would minimize potential adverse effects of cannabis cultivation sites on the enjoyment of parks. Cannabis cultivation sites would be set back at least 1,000 feet from parkland. In addition to setbacks, implementation of Mitigation Measures AIR-2 and AIR-3 would prevent the exposure of people to objectionable cannabis odors at parks.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. It would also not allow for new housing that could increase demand for recreational facilities. Therefore, the amendment would not cause an increase in the use of existing facilities. This impact would be less than significant.

Significance Level: Less than Significant Impact

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Comment:

Updated Ordinance

The updated Ordinance would not allow for the construction or expansion of recreational facilities. As discussed above in item 16.a, it would not generate a substantial increase in demand for such

facilities. Therefore, it would not require the construction or expansion of recreational facilities to meet demand. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not allow for the construction or expansion of recreational facilities. As discussed in item 16.a, the amendment also would not generate an increase in demand for recreational facilities. Therefore, it would not require the construction or expansion of recreational facilities to meet demand. This impact would be less than significant.

Significance Level: Less than Significant Impact

17. TRANSPORTATION:

Would the project:

- a) **Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?**

Comment:

Updated Ordinance

The updated Ordinance would allow for larger cannabis cultivation sites, which would generate more vehicle trips than anticipated in the 2016 ND. The conversion of existing agricultural operations to cannabis cultivation, under the updated Ordinance, would not necessarily generate additional vehicle trips because these sites would remain in agricultural use. However, large greenhouse cultivation operations could have 100 to 200 employees commuting to cultivation sites, resulting in additional vehicle trips compared to existing agricultural uses. Average daily vehicle trips from new cannabis operations would affect the performance of roadways. Objectives in the County's General Plan 2020 set performance standards for the countywide highway system, in terms of level of service (LOS). LOS is a qualitative description of the delay experienced by drivers. It ranges from LOS A, with no congestion and little delay, to LOS F, with excessive congestion and delays. Objective CT-4.1 in the General Plan 2020 is to maintain LOS C or better on roadway segments (unless a lower LOS has been adopted for a segment as shown in Figure CT-3), and Objective CT-4.2 is to maintain LOS D or better at intersections (Sonoma County 2016). Although new cannabis cultivation sites could generate additional vehicle trips, CEQA Guidelines Section 15064.3 states that "a project's effect on automotive delay shall not constitute a significant environmental impact." Therefore, potential conflicts with policies related to roadway performance would not result in a significant impact.

The updated Ordinance also would remove an existing prohibition on special events at cannabis cultivation operations, which would allow for future permitting of such events on a case-by-case basis. Infrequent special events would result in short-term spikes in traffic near cultivation sites. Individual special events would be subject to a discretionary review process including CEQA review. Any potential impacts to roadway performance during special events would be disclosed, evaluated, and mitigated as part of this permitting process.

New cannabis operations would be located in rural areas of Sonoma County where transit access is relatively sparse. Pedestrian facilities would not be available near most cultivation sites, and many rural roadways would not provide safe bicycle access. It is expected that the vast majority of employees at cannabis operations would commute by motor vehicle, rather than public transit or non-motorized forms of transportation. Therefore, the updated Ordinance would not result in a substantial increase in demand for transit, pedestrian, or bicycle facilities, and it would not conflict with County policies to improve transit, pedestrian, or bicycle service. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation

would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in additional vehicle travel or an increase in demand for transit, pedestrian, or bicycle facilities. This impact related to conflicts with County policies addressing the circulation system would be less than significant.

Significance Level: Less than Significant Impact

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Comment:

Updated Ordinance

Vehicle miles traveled (VMT) refers to the amount and distance of automobile travel attributable to a project or an area. Under California's Senate Bill 743, vehicle miles traveled (VMT) has replaced traffic delay as the primary metric for evaluating a project's impacts on the transportation system. Section 15064.3(a) in the CEQA Guidelines implements this law with respect to the environmental review process, stating that "a project's effect on automobile delay shall not constitute a significant environmental impact."

The County utilizes guidance provided by OPR in the 2018 publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory (W-Trans 2020)*. This document identifies several criteria that may be used by jurisdictions to identify certain types of projects that are unlikely to have a VMT impact and can be "screened" from further VMT analysis. One of these screening criteria pertains to small projects, which OPR identifies as generating or attracting fewer than 110 vehicle trips per day. These projects "may generally be assumed to cause a less-than-significant transportation impact" related to VMT (OPR 2018). Another suggested screening criterion is a 15 percent reduction in per-capita or per-employee VMT below that of existing countywide or regional VMT. This recommended level of VMT reduction was found to support attainment of the State's GHG reduction targets.

Future cannabis cultivation projects would have to comply with applicable VMT thresholds, in order to receive ministerial permits. New cannabis cultivation projects would be located in rural areas of the County, where existing average trip lengths are higher than in urban and suburban areas. The average trip length in unincorporated Sonoma County is 10.1 miles, compared with 5.4 miles in Santa Rosa, 7.0 miles in Sebastopol, 6.9 miles in Rohnert Park, and 7.3 miles in Windsor (Sonoma County Transportation Authority 2020). However, it is anticipated that many, if not most, cannabis cultivation projects would generate a net increase of fewer than 110 average daily trips, meaning they would be small enough to avoid a VMT impact. New outdoor and hoop house cultivation also would occur on parcels in agricultural and RRD zoning districts, where they would likely replace existing agricultural cultivation that generates a similar number of trips. Therefore, the conversion of existing agricultural operations to outdoor and hoop house cannabis cultivation would not necessarily result in additional trips compared to existing conditions, unless they involve a greater acreage of agricultural operations.

Individual larger projects, especially those involving indoor cannabis cultivation using greenhouse structures, could potentially generate a higher volume of trips that exceeds a net increase of 110 average daily trips. To ensure consistency with applicable VMT regulations, individual applicants for cannabis cultivation projects permitted under the updated Ordinance would need to provide evidence that they would generate a net increase of fewer than 110 average daily trips, or alternatively provide a full analysis of potential VMT impacts. Mitigation Measure TRANS-1 would require this analysis and, as needed, implementation of measures to reduce VMT. With implementation of this mitigation measure, the updated Ordinance would not conflict with or be inconsistent with an applicable threshold of significance adopted per CEQA Guidelines section 15064.3, subdivision (b). This impact would be less than significant with mitigation incorporated.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances

discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in additional VMT associated with the operation of cultivation sites. This impact would be less than significant.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure TRANS-2 VMT Analysis and Reduction:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, ensuring that new cannabis structures comply with County regulations on VMT:

“Vehicle Miles Traveled. Individual applicants for cannabis cultivation projects shall either provide substantial evidence that the project would generate a net increase of fewer than 110 average daily trips beyond existing conditions on the project site, or retain a qualified transportation engineer to quantify VMT generated by the project in a study to be submitted with the ministerial permit application. If estimated VMT would exceed applicable County thresholds or the Governor’s Office of Planning and Research’s recommended thresholds for a significant impact, the transportation engineer shall recommend measures that reduce the project’s VMT below such thresholds, and the applicant shall incorporate these VMT reduction measures into the project. Measures to reduce VMT may include, for example, a transportation demand management program to reduce single-occupancy vehicular travel.”

Mitigation Monitoring:

Mitigation Monitoring TRANS-1:

Department of Agriculture/Weights & Measures and Department of Transportation and Public Works (DTPW) staff shall verify that individual cannabis cultivation projects would generate fewer than 110 average daily trips, or alternatively that a qualified transportation engineer has prepared an adequate VMT analysis. Staff shall not issue a building permit for a cannabis cultivation project until verifying that it complies with applicable County or recommended State thresholds related to VMT and that, if necessary, it incorporates appropriate VMT-reducing measures consistent with the requirements in Mitigation Measure TRANS-1. (Ongoing)

c) Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Comment:

Updated Ordinance

The updated Ordinance would allow for expanded cannabis cultivation in remote areas within the RRD zoning district, which is known for steep, rocky, hillsides. New road construction in these larger areas may pose hazards related to design. However, new driveway entrances would be required to comply with Sonoma County Code provisions requiring adequate sight distances and safe entry onto roadways, through proper driveway location, trimming of existing landscaping, and relocation of existing mailboxes, signs, and other structures. County review of site plans for cannabis cultivation projects would ensure that individual projects permitted under the updated Ordinance comply with these County Code requirements. Therefore, the updated Ordinance would not result in a substantial increase in hazards due to geometric design features. This impact would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in road construction to serve expanded cultivation in areas that may pose design hazards. This impact would be less than significant.

Significance Level: Less than Significant Impact

d) Result in inadequate emergency access?

Comment:

Updated Ordinance

The updated Ordinance would allow for the construction of additional cannabis cultivation projects, which would be subject to local code requirements to protect emergency access. New cannabis developments must comply with all emergency access requirements of the Sonoma County Fire Safety Code (Sonoma County Code Chapter 13), including emergency vehicle access requirements. Project development plans would be reviewed by a Department of Fire and Emergency services Fire Inspector during the building permit process to ensure compliance with emergency access issues. Because of these regulatory requirements, the impact on emergency access would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction of projects that would require access for emergency vehicles. This impact would be less than significant.

Significance Level: Less than Significant Impact

e) Result in inadequate parking capacity?

Comment:

Updated Ordinance

Parking availability is not an impact under CEQA, but this issue is discussed for informational purposes. The updated Ordinance would allow for expanded cannabis cultivation, which would increase parking demand on cultivation sites. New cannabis cultivation projects would not be open to the public (except potentially during permitted special events), and on-site parking would be designated primarily for employees. The updated Ordinance does not include specific parking requirements for cannabis cultivation land uses; however, similar uses such as warehousing recommend one space per 2,000 square feet of building floor area (Sonoma County 2019). For cannabis greenhouse and processing operations, one parking space per 1,000 square feet of building floor area may be more appropriate. During County review of individual cultivation projects for ministerial permitting, staff would ensure that site plans include adequate on-site parking capacity for employees, and that parking areas are designed to prevent traffic safety risks. No impact would occur.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in increased parking demand. This impact would be less than significant.

Significance Level: No Impact

18. TRIBAL CULTURAL RESOURCES:

As of July 1, 2015, California AB 52 of 2014 was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "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” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
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 Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Tribal consultation under SB18 and AB 52 is ongoing and will conclude prior to action on the project. The proposed ordinance incorporates measures arrived at during the ongoing consultation process to address protection of tribal cultural resources.

Would the project:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5030.1(k), or

ii) A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Comment:

Updated Ordinance

Sonoma County lies within an area traditionally occupied by the Coast Miwok, Western Pomo, and Wappo. As such, future cannabis cultivation projects could be located in a geographic area that is traditionally and culturally affiliated with these California Native American tribes. Cultivation operations that would require ground disturbance for grading could disturb tribal cultural resources. Most future cannabis cultivation projects would likely occur in disturbed agricultural areas where further ground disturbance during construction would be unlikely to adversely affect tribal cultural resources. However, proposed cultivation operations requiring the construction of permanent structures on previously undisturbed land in Sonoma County particularly have the potential to encounter and impact tribal cultural resources.

The updated Ordinance includes the minimum standards which would apply to cultivation permits involving ground disturbance to avoid impacts to unknown cultural and tribal cultural resources. The

updated Ordinance requires referral of cultivation operations involving ground disturbing activities to local tribes through the following standard:

C. Referral. *Cultivation operations involving ground disturbing activities, including but not limited to, new structures, roads, water storage, trenching for utilities, water, wastewater, or drainage systems must be referred to the Northwest Information Center and local tribes. A use permit will be required if mitigation is recommended by the cultural resource survey or local tribe.*

Additionally, all grading and building permits would be required to include the following notes on the plans:

If paleontological resources or prehistoric, historic-period, or tribal cultural resources are encountered during ground-disturbing work at the project location, all work in the immediate vicinity shall be halted and the operator must immediately notify the agency having jurisdiction of the find. The operator shall be responsible for the cost to have a qualified paleontologist, archaeologist, and tribal cultural resource specialist under contract to evaluate the find and make recommendations in a report to the agency having jurisdiction.

Paleontological resources include fossils of animals, plants, or other organisms. Historic-period resources include backfilled privies, wells, and refuse pits; concrete, stone, or wood structural elements or foundations; and concentrations of metal, glass, and ceramic refuse. Prehistoric and tribal cultural resources include obsidian and chert flaked-stone tools (e.g., projectile points, knives, choppers), midden (culturally darkened soil containing heat-affected rock, artifacts, animal bone, or shellfish remains), stone milling equipment, such as mortars and pestles, and certain sites features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.

If human remains are encountered, work in the immediate vicinity will stop and the operator shall notify the agency having jurisdiction and the Sonoma County Coroner immediately. At the same time, the operator shall be responsible for the cost to have a qualified archaeologist under contract to evaluate the discovery. If the human remains are determined to be of Native American origin, the Coroner must notify the Native American Heritage Commission within twenty-four (24) hours of this identification.

The inclusion of these standards for all cultivation permits involving ground disturbance would reduce impacts to tribal cultural resources to a less-than-significant level, by ensuring that any tribal cultural resources encountered during future cannabis cultivation project activities are handled in a suitable manner.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in a substantial adverse change in the significance of a historical resource pursuant to §15064.5. This impact would be less than significant.

Significance Level: Less than Significant Impact

19. UTILITIES AND SERVICE SYSTEMS:

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications**

facilities, the construction or relocation of which could cause significant environmental effects?

- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?
- c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Comment:

Updated Ordinance

Water

Typical water demand for commercial cannabis activities would result primarily from the cultivation and irrigation of cannabis, which has been characterized as a high-water-demand activity. The updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated structures, the operation of which may result in new water demand in agricultural areas of Sonoma County. Based on water demands factors of typical commercial agricultural products, as well as anecdotal information on average water demands associated with cultivation operations, it is estimated that new cannabis cultivation licensed under the updated Ordinance could result in water demands between 1 to 5 acre-feet/year (Santa Barbara County 2017). However, this number is highly speculative, as estimated demand is based on interviews with cultivators and average water demands provided by self-reported surveys which may vary by operation and growing method. This data also reflects water demands in Santa Barbara County, which has different climate conditions and soil types than Sonoma County.

While the updated Ordinance has the potential to increase water demand primarily from cannabis cultivation, the demand is similar to the demand from other agricultural operations that could occur in the currently regulatory environment without permits, as noted above in Section 10, *Hydrology and Water Quality*. Other cannabis activities permitted under the updated Ordinance, including processing and distribution, would have low water demands comparable to other commercial, industrial, or retail land uses.

Future cannabis cultivation facilitated by the updated Ordinance would require water supplies from various sources depending on the location of the proposed sites throughout the county. These supplies may include water provided by municipal water services, surface water rights, and groundwater from private wells. The updated Ordinance includes standards to ensure future new water demands generated by individual cultivation operations do not substantially affect existing water supplies or require the construction of new facilities or the expansion of existing facilities in a manner which would result in significant environmental effects. These standards are as listed as Section 38.12.140 of the County Code and are as follows:

A. Water Source. Applicant must demonstrate an on-site water source adequate to meet all water use on a sustainable basis, through one or a combination of the following:

1. **Retail Water.** Documentation from a retail water source that adequate supplies are available to serve the proposed use. A retail water supplier is defined in California Water Code Section 13575.
2. **Recycled Water.** Verified plan for using on-site recycled water or connecting to a municipal recycled water supply for recycled process wastewater for non-potable use. A recycled water supplier is defined in California Water Code Section 13575. Recycled water may not be used for employees and other uses.
3. **Surface Water.** An existing legal water right, registration, stored rainwater or other surface water source that is exempt from State regulation. Diversion and use of surface water must be consistent with State policies and agreements applicable to the site's surface water use, including a Streambed Alteration Agreement issued by the California Department of Fish and Wildlife.

- 5. Trucked Water.** Trucked water may only be used for cannabis cultivation permitted under this chapter in response to and during a local, state, or federally declared disaster, where such disaster causes all other water supplies to be unavailable or inadequate for cannabis cultivation purposes.

Additionally, as described in Section 10, *Hydrology and Water Quality*, the updated Ordinance includes standards related to groundwater supply and use to reduce or eliminate potential impacts in areas of low groundwater availability or GSAs. With implementation of these standards, applicants would be required to provide site-specific details regarding source of water supplies and provide proof that adequate water supply existing to serve the intended use of the site. As these requirements would ensure the availability of municipal water supplies or other approved onsite water source and would serve to identify and address impacts from construction or expansion of existing facilities on a site-by-site basis, impacts would be less than significant.

Wastewater

The updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated structures, the operation of which may generate wastewater from irrigation runoff, sanitary waste, or stormwater runoff. Wastewater would also be generated through the use of employee restrooms, as well as processing or cannabis washing operations. Cultivation operations located on agricultural land near more urban areas in the county would typically discharge wastewater to local sewer or wastewater systems. Wastewater treatment providers would consider potential impacts on their treatment systems when providing service to cultivators and may establish pretreatment standards to avoid the need for new or altered facilities. In rural areas where a centralized sewer system is not available, wastewater may take the form of irrigation or stormwater runoff, and/or may be discharged into a septic system, depending on the size and location of the operation.

Wastewater associated with cultivation activities may contain contaminants such as sediment, chemicals, and trash. Wastewater discharged to a municipal sewer system could result in elevated levels of these contaminants in wastewater effluent. Wastewater treatment plants may not be capable of removing some chemicals used in cultivation, such as pesticides and pesticide residues (CDFA 2017). Particularly for indoor cultivation, hydroponic solutions may contain organic constituents that do not break down easily and may remain in effluent even after wastewater treatment.

As described in Section 9, *Hazards and Hazardous Materials*, CDFA requires that cultivators comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation and implement a pest management plan which would outline proper pesticide application a storage protocol. Additionally, the County Agricultural Commissioner has established BMPs for pesticide and fertilizer storage that apply to all cannabis cultivation operations in Sonoma County. Adherence to these regulations and BMPs would ensure proper application and storage of pesticides and would reduce the amount of excess pesticide residue entering the sewer system from cultivation wastewater.

There are ten separate Sanitation Districts that own and operate wastewater treatment infrastructure in Sonoma County. These Sanitation Districts vary in their treatment processes, age, remaining capacities, and other factors. Future cannabis cultivation would likely fall under the jurisdiction of several different Sanitation Districts and as such it is difficult to determine whether individual wastewater treatment providers would have appropriate capacity to serve specific projects. In general, the amount of wastewater generated by cultivation operations would be relatively small to avoid the cost and risk of overwatering. However, some types of cultivation operations, such as hydroponics, may generate appreciable quantities of wastewater.

As described in Section 10, *Hydrology and Water Quality*, the updated Ordinance includes standards to prevent wastewater discharge from exceeding the available capacity of local treatment plants. These standards require that cultivation operations prepare and implement a wastewater management plan that identifies the amount and method of disposal for excess irrigation and domestic wastewater and includes verification of compliance with or waiver from the waste discharge

requirements of the SWRCB. Additionally, the updated Ordinance includes a standard requiring that any excess irrigation water or effluent must be directed to a sanitary sewer, septic, irrigation, graywater, or bio-retention treatment system, such that these discharges would not exceed capacity of local treatment plants. Adherence to these updated Ordinance standards would reduce potential impacts associated with wastewater treatment to less than significant levels.

Stormwater Drainage

See Section 10, *Hydrology and Water Quality*, for a discussion of stormwater drainage. This impact would be less than significant.

Electricity and Natural Gas

The updated Ordinance would allow for construction of new buildings and structures as well as an increase in cultivation acreage that would generate new demand for electricity and natural gas. As described in Section 6, *Energy*, the updated Ordinance includes standards that would require future cannabis cultivation operations to be provided electrical power from a 100 percent renewable energy source and purchase carbon credits to offset power used that is not from renewables. Cultivation operations would also be required to comply with existing State regulations related to energy efficiency and conservation such as CCR Title 3, Division 8, Chapter 1. However, as noted in Section 6, *Energy*, because the updated Ordinance would allow for larger cannabis operations, constrained by percent of parcel size, large-scale new cannabis uses could potentially exceed energy supply during operation. Implementation of Mitigation Measure ENERGY-1 would require future cannabis cultivation projects to prepare and submit an energy demand study and energy conservation plan to ensure individual cannabis projects would not exceed existing energy supply or result in a cumulative impact to overall energy supply in the region.

Telecommunications

Cannabis cultivation facilitated by the updated Ordinance would not generate substantial new demand for telecommunication facilities. Existing infrastructure is sufficient and would not require upgrades as a result of the project.

Based on the above discussion, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. With implementation of Mitigation Measure ENERGY-1, this impact would be less than significant with the mitigation incorporated.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could require new or expanded utility services or facilities. These impacts would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation may result in increased vehicle trips or operational energy needs, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measure ENERGY-1 would be required to address energy supply on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

- d) **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?**

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Comment:

Updated Ordinance

Cannabis cultivation operations may generate solid waste from various materials and containers used during cultivation (e.g. soils, fertilizer, pesticides, pots), as well as household trash from workers, discarded irrigation tubing, and other equipment. Additionally, cannabis cultivation would typically generate green waste throughout the cultivation process from trimming of unwanted leaves and plant parts. Solid waste would be collected by franchise waste companies or hauled by individual businesses to transfer stations and processing facilities, as cannabis waste is generally considered organic waste if it does not contain hazardous or toxic materials and may be disposed of at typical solid waste facilities. The updated Ordinance includes the following stand requiring applicants to develop a Waste Management Plan regarding the storage, handling and disposal of all waste by-products associated with cultivation:

- A. **Waste Management.** *An applicant must submit a waste management plan addressing the storing, handling, and disposing of all waste by-products that complies with the department's best management practices and includes the following:*
1. *Volumes and types of waste generated;*
 2. *Operational measures to manage and dispose, or reuse the wastes;*
 3. *Storage for garbage and refuse in non-absorbent, water-tight, vector resistant, durable, easily cleanable, galvanized metal or heavy plastic containers with tight fitting lids;*
 4. *Sufficient storage so that no refuse container is filled beyond the capacity to completely close the lid;*
 5. *Proper disposal of stored waste at least every seven (7) calendar days; and*
 6. *Prevention of public access to cannabis waste.*

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 may 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.

Impacts on landfill capacity would depend on the specific landfill servicing the cultivation site and its remaining capacity. While it is unlikely that the volume of solid waste from any one cultivation facility could exceed landfill capacity, if a number of operations were to be concentrated in an area with limited remaining capacity, the capacity of the local landfill could be exceeded. The waste management standards included in the updated Ordinance and compliance with existing regulation regarding cannabis waste disposal would ensure that future cannabis cultivation would have a less than significant impact related to solid waste disposal.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could exceed solid waste standards or otherwise impair the attainment of solid waste reduction goals. These impacts would be less than significant.

Significance Level: Less than Significant Impact

20. WILDFIRE:

The risk of wildfires is high throughout much of rural Sonoma County. Areas mapped as having high and very high fire hazard severity are located outside urbanized areas, and generally located along the eastern boundary of the county in the Mayacamas Mountains and in the northwestern portion in the Coast Range (Sonoma County 2016a). Very high fire hazard severity zones have large tracts of flammable vegetative cover that can act as fire fuels. While most wildfires have historically impacted rural and wooded areas, the 2017 Sonoma Complex Fires and the 2019 Kincade Fire, burned through urban areas and affected particularly the outer edges of urban development, despite having less abundant typical wildfire fuels. In October 2017 the Nuns, Tubbs, and Pocket Fires (together comprising the Sonoma Complex Fires) burned over 110,700 acres and destroyed 5,300 homes in Sonoma and Napa Counties. In October 2019, the Kincade fire burned 77,758 acres and destroyed 374 structures in Sonoma County between Geyserville, Healdsburg and the town of Windsor and the eastern border of the county.

In August of 2020, a series of lightning strikes started hundreds of fires across Northern California, including in Sonoma County. The LNU Lightning Complex fire, spanning five counties including Sonoma County, was sparked by these lightning strikes, and eventually burned 363,220 acres before being extinguished. On September 28, a state of emergency was declared in California in response to wildfires that burned through Napa, Sonoma, and Shasta counties, where tens of thousands were forced to be evacuated. In October, the Glass Fire in Napa and Sonoma counties burned about 67,500 acres and destroyed 1,555 structures.

Extreme wildfire events are anticipated to occur 20 percent more often by 2050 and 50 percent more often by the end of the century (Sonoma County 2017). The Office of Planning and Research has recognized that although high-density structure-to-structure loss can occur, structures in areas with low-to intermediate-housing density were most likely to burn, potentially due to intermingling with wildland vegetation or difficulty of firefighter access. Fire frequency also tends to be highest at low to intermediate housing density, at least in regions where humans are the primary cause of ignitions (California Natural Resources Agency 2018).

The mountainous, highly combustible areas in eastern Sonoma County have a Fire Hazard Severity Zone (FHSZ) ranking of "very high" according to California Department of Forestry and Fire Protection (CAL FIRE 2007) maps, and therefore are the most susceptible to wildland fires. Under state regulations, areas within very high FHSZs must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas. Communities near this area include Cloverdale, Geyserville, eastern Santa Rosa, and Sonoma.

If located in or near state responsibility areas or lands classified as very high fire severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Comment:

Updated Ordinance

CAL FIRE has largely mapped the rural areas of eastern and northern Sonoma County as Very High or High FHSZ or State Responsibility Area (SRA), which are managed by CAL FIRE. The updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated structures within high fire risk areas, such as in the RRD land use areas. Whereas the existing Ordinance restricts cultivation in agricultural and resource zoning districts to no greater than one acre per parcel, the updated Ordinance would instead limit cultivation by percent of parcel coverage. Plant canopy cover for outdoor cannabis cultivation and hoop houses would be limited to 10 percent of a parcel. In addition, new structures on parcels greater than 20 acres in size would be restricted to 50 percent of the maximum lot coverage prescribed for the base zone. These new provisions would allow for more than one acre of cannabis cultivation on parcels at least 10 acres in size. As a result, the updated

Ordinance could lead to a substantial expansion of cannabis cultivation and associated structures on parcels within very high fire severity zones.

As described under Section 9, *Hazards and Hazardous Materials*, the updated Ordinance would not change existing circulation patterns and would not affect emergency response routes or response times. Cannabis operations established under the updated Ordinance would be required to prepare and implement a site security plan that includes emergency access in compliance with fire safe standards. Additionally, the updated Ordinance includes the following standard:

A. Fire Code Requirements. *An application under this chapter shall include a fire prevention plan for construction and ongoing operations. The fire prevention plan must state how the development will comply with chapters 13 and 13A of this code, and all other applicable local and state standards, including those governing emergency vehicle access and turn-around at the facility site, vegetation management and fire break maintenance around all structures.*

Although the updated Ordinance would allow for additional commercial cannabis cultivation, which could increase the number of employees working in Sonoma County, it is anticipated that new employees would primarily be existing residents in the Bay Area, so they would not induce substantial indirect population growth. As discussed in Section 14, *Population and Housing*, the updated Ordinance would not result in new residential subdivisions or housing. Therefore, potential population increase would not impair adopted emergency response and emergency evacuation plans. With inclusion of fire prevention standards, the updated Ordinance would not impair an emergency response or emergency evacuation plan and impacts would be less than significant.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could impair adopted emergency response or emergency evacuation plans. This impact would be less than significant.

Significance Level: Less than Significant

- b) 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?**
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk of that may result in temporary or ongoing impacts to the environment?**
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

Comment:

Updated Ordinance

Wildfire risk from individual projects can contribute to cumulative wildfire risk and damage in a regional setting such as Sonoma County. If a project has a considerable contribution to high fire severity, this would be a significant impact on wildfire risk. As described above under criterion a, the updated Ordinance would allow for an increase in acreage of cannabis cultivation and associated structures within high fire risk areas, such as in the RRD land use areas. Severe wildfires damage the forest or shrub canopy, the plants below, as well as the soil. In general, this can result in increased runoff after intense rainfall, which can put homes and other structures below a burned area at risk of localized floods and landslides. Many agricultural lands in Sonoma County, especially those located in the RRD land use areas, are on or near steep slopes and vegetative wildfire fuels. The updated Ordinance contains standards limiting future cultivation to sites with a slope of 15 percent or less

unless a use permit is obtained with subsequent review from the County for the individual project. However, if a severe wildfire were to occur adjacent to those locations, structures directly downslope (including those used for cannabis cultivation) may be at risk of flooding or landslides and would expose project occupants to wildfire pollutants.

As described in Section 19, *Utilities and Service Systems*, the updated Ordinance would not require the installation of new power line infrastructure, and therefore would not exacerbate fire risk. Implementation of the updated Ordinance could result in the construction of new structures and on-site infrastructure associated with cannabis cultivation which would be constructed in accordance with current fire and building codes and safety standards.

The updated Ordinance would result in the potential for increased cannabis cultivation on various parcels throughout the county, some of which are in proximity to woodlands, shrublands, and chaparral with flammable vegetation. However, prior to the issuance of a building permit for any new structure, California Government Code 51182 would require that the developer obtain certification from the local building official that the building complies with all applicable state and local fire standards. New construction would also be subject to the California Fire Code, which include safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves, and vents to prevent intrusion by flame or embers. Construction would also be required to meet California Building Code requirements, including CCR Title 24, Part 2, which includes specific requirements related to exterior wildfire exposure. CCR Title 14 sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. The codes and regulations would reduce the risk of loss, injury, or death from wildfire for new residential developments encouraged by the project, but not entirely.

Therefore, future cannabis cultivation facilitated by the updated Ordinance would have potentially significant wildfire impacts, as existing codes and regulations cannot fully prevent wildfires from damaging structures or harming occupants. Cannabis cultivation operations in high fire risk areas would increase the exposure of new structures and occupants to risk of loss or damage from wildfire. Therefore, Mitigation Measure WF-1 would be required to reduce risk of wildfire for sites located near steep slopes and vegetative wildfire fuels and during construction. Mitigation Measure WF-2 and WF-2 includes project siting considerations beyond those identified in the updated Ordinance.

These measures would make structures more fire resistant and less vulnerable to loss in the event of a wildfire. These measures would also reduce the potential for construction to inadvertently ignite a wildfire. With implementation of Mitigation Measures WF-1 and WF-2, the risk of loss of structures and the risk of injury or death due to wildfires would be reduced to a less than significant level.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Therefore, it would not result in the construction or operation of additional cannabis projects that could result in increased risk of loss of structure or the risk of injury or death due to wildfires. This impact would be less than significant.

The proposed amendment is intended to recognize that cannabis cultivation is an agricultural practice that has similarities to other types of cultivation. As discussed above, however, cannabis cultivation in high fire risk areas may result in increased exposure of new structures and occupants to risk of loss or damage from wildfire, and the updated Ordinance would allow for additional cannabis cultivation. Therefore, Mitigation Measures WF-1 and WF-2 would be required to address increased wildfire risk on a case-by-case basis.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

Mitigation Measure WF-1 Wildfire Risk Reduction:

The Department of Agriculture/Weights & Measures shall maintain and implement the following requirement as a best management practice for cannabis cultivation sites, ensuring that applicants for cannabis cultivation projects on sites with high fire risk implement appropriate mitigation to reduce the risk of loss, injury, or death from wildfire:

“The construction and operation of cannabis cultivation projects located near steep slopes and vegetative wildfire fuels or with high fire risk shall implement the following wildfire risk reduction measures:

1. Prohibit certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings
2. Require fire extinguishers to be onsite during project construction. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.
3. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained per manufacturer recommendations to ensure adequate performance.”

Mitigation Measure WF-2 New Structure Locations:

In the updated Ordinance, Section 38.12.090 shall be amended as follows to enhance protection from landslides and pollutant release due to wildfire:

A. Slope Limitation. A cultivation site is only allowed on a slope of 15% or less, as that term is defined by Section 11-22-020, of Chapter 11, of the Sonoma County Code.

B. Grading Limits. Grading for outdoor canopy must comply with Chapter 36 of the Sonoma County Code. Grading for construction must comply with Chapter 11 of the Sonoma County Code.

C. Ridgetop Protection. Cannabis cultivation shall be set back a minimum of fifty (50) feet from the delineated slope break of descending existing slopes greater than fifty (50) percent for more than fifty (50) feet in slope length.

D. New Structure Locations. Prior to finalizing site plans, proposed structure locations, shall to the extent feasible given site constraints, meet the following criteria:

1. Be located outside of known landslide-susceptible areas
2. Be located at least 50 feet from sloped hillsides
3. Should the location be within a known landslide area or within 50 feet of a sloped hillside, structural engineering features shall be incorporated into the design of the structure to reduce the risk of damage to structure from post-fire slope instability resulting in landslides or flooding. These features shall be recommended by a qualified engineer and approved by the County prior to building permit approval.”

Mitigation Monitoring:

Mitigation Monitoring WF-1 Wildfire Risk Reduction: Permit Sonoma staff shall verify that the WF-1 measures are included on all site alteration, grading, building, or improvement plans for cannabis cultivation projects prior to issuance of grading or building permits. The applicant shall submit documentation to Permit Sonoma staff that a Construction Coordinator has been designated and that appropriate equipment has been installed at the project site. Documentation may include photographic evidence or a site inspection, at the discretion of Permit Sonoma staff.

Mitigation Monitoring WF-2 New Structure Locations: Permit Sonoma staff shall verify that new structures associated with cannabis projects implement the location standards included in Mitigation

Measure WF-2. The applicant shall submit plans to Permit Sonoma Staff that all location standards have been implemented and structural engineering standards drafted by a qualified engineer are incorporated to project plans, as needed.

21. MANDATORY FINDINGS OF SIGNIFICANCE

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Comment:

Updated Ordinance

Based upon the analysis throughout this Initial Study, the updated Ordinance would not have the potential to degrade the quality of the environment, with mitigation incorporated, 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. As discussed in Section 4, *Biological Resources*, individual cannabis cultivation projects facilitated by the updated Ordinance could result in a loss of trees that is inconsistent with local policies and ordinances. As discussed in Section 5, *Cultural Resources*, the updated Ordinance contains standards to ensure future cannabis projects would not impact historical or archaeological resources.

However, as noted in Section 7, *Geology and Soils*, future cannabis projects may impact unanticipated paleontological resources. Potential impacts to biological resources would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-1, requiring projects to prepare and implement a tree replacement plan. Impacts to paleontological resources would be reduced to a less-than-significant level with implementation of Mitigation Measure GEO-1 requiring paleontological resources studies be prepared prior to ground disturbing activities. Therefore, impacts would be reduced to less-than-significant levels with implementation of identified mitigation measures.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. Based upon the analysis throughout this Initial Study, the proposed General Plan amendment would not have the potential to degrade the quality of the environment, with mitigation incorporated, 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be less than significant.

Significance: Less than Significant with Mitigation Incorporated

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Comment:

Updated Ordinance

As described in the discussion of environmental checklist Sections 1 through 20, the updated Ordinance would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated, with respect to all environmental issues. The updated Ordinance would not adversely affect biological, cultural, or other physical resources outside of the project sites. Pursuant to CEQA Guidelines Section 15064(h)(3), cumulative impacts associated with some of the resource areas have been addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Water Supply, and Solid Waste. As discussed in these sections, impacts (including cumulative impacts) would be less than significant or less than significant with mitigation incorporated in the case of air quality. Other issues (e.g. aesthetics, hazards and hazardous materials are site-specific by nature, and impacts at one location do not add to impacts at other locations or create additive impacts. As discussed in Section 17, *Transportation*, it is anticipated that the updated Ordinance would not result in VMT exceeding applicable screening criteria in Sonoma County, as cannabis cultivation sites would remain in agricultural use and would not necessarily generate additional trips. Therefore, the updated Ordinance’s impacts would not be cumulatively considerable with implementation of mitigation measures.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. As described in the discussion of environmental checklist Sections 1 through 20, the proposed General Plan amendment would have no impact or a less than significant impact, with respect to all environmental issues. The proposed General Plan amendment would not adversely affect biological, cultural, or other physical resources outside of the project sites. Pursuant to CEQA Guidelines Section 15064(h)(3), cumulative impacts associated with some of the resource areas have been addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Water Supply, and Solid Waste. As discussed in these sections, impacts (including cumulative impacts) would be less than significant. Other issues (e.g. aesthetics, hazards and hazardous materials are site-specific by nature, and impacts at one location do not add to impacts at other locations or create additive impacts. Therefore, the proposed General Plan amendment’s impacts would not be cumulatively considerable.

Significance: Less than Significant with Mitigation Incorporated

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Comment:

Updated Ordinance

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As discussed in Section 3, *Air Quality*, impacts related construction and operational emissions would be reduced to less than significant levels with Mitigation Measures AQ-1 through AQ-4. Mitigation Measure AQ-1 would require applicants for cannabis projects exceeding 5.95 acres to complete an air quality study of the project’s criteria air pollutant emissions, and Mitigation Measure AQ-2 would require project construction and operation to implement dust and air quality control measures. Mitigation Measure AQ-3 would revise the updated Ordinance to enhance odor control for cannabis structures and Mitigation Measure AQ-4 would add standards to address odor complaints about cultivation sites.

As discussed in Section 9, *Hazards and Hazardous Materials*, impacts related to accidental release of unknown hazardous materials could be significant without mitigation measures. Mitigation Measure HAZ-1 would require applicants to identify unknown hazardous materials on the project site and to mitigate for hazardous contaminants where necessary with a Phase I and potential Phase II hazardous waste site investigation. Implementation of Mitigation Measure HAZ-1 would reduce impacts to a less than significant level. As discussed in Section 13, *Noise*, the updated Ordinance could expose sensitive receptors to a substantial increase in ambient noise levels due to construction and operational noise. Mitigation Measure NOISE-1 would be required to reduce the impact of construction, while Mitigation Measures NOISE-2 and NOISE-3 would reduce operational noise to less-than-significant levels.

Therefore, the project would not cause substantial effects on human beings with mitigation implemented.

General Plan Amendment

The proposed General Plan amendment to redefine agriculture as inclusive of cannabis cultivation would not, in itself, allow for additional cannabis cultivation in the County beyond those allowances discussed above, the impacts of which are evaluated throughout this Initial Study. In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As discussed in the impacts discussion of each of these resource areas, impacts resulting from the proposed General Plan amendment would be less than significant. Therefore, the proposed General Plan would not cause substantial effects on human beings.

Significance: Less than Significant with Mitigation Incorporated

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