

3.4.1 Introduction

This section evaluates biological resource issues that could result from adoption and implementation of the Commercial Cannabis Cultivation and Manufacturing Regulations and Licensing Program (Program) by the County of Santa Cruz (County), including both the Project and More Permissive Project scenarios. This section discusses federal, state, and local regulations relevant to vegetation and wildlife resources that might be affected by the Program; describes the existing environmental setting of the Program area in the unincorporated areas of the County to which the Program would apply; and identifies special-status plant and wildlife species and sensitive or regulated habitats potentially affected by the Program. Potential impacts related to biological resources that would result from implementation of the Project and More Permissive Project are evaluated and where applicable, mitigation measures (MMs) are provided. Key resources and data used in the preparation of this section include the Santa Cruz County General Plan Conservation and Open Space Element, the Santa Cruz County Code (SCCC), and other sources provided in Appendix G. The overall assumptions and methodology for this analysis are detailed in Section 3.0, *Introduction and Approach to Analysis*.

Program Impact Analysis At a Glance

The Program could adversely affect biological resources from disturbance of special-status species, habitats or sensitive natural communities, the movement of native resident or migratory species, or conflicts with adopted Habitat Conservation Plans. County regulations for biological resources and mitigation would ensure direct and indirect impacts are less than significant. However, unlicensed cannabis activities could have significant and unavoidable impacts.

3.4.2 Environmental Setting

The topography and terrain of the County is highly varied, including the steep slopes and peaks of the Santa Cruz Mountains in the north and northeast, coastal terraces in the mid-County, and the alluvial areas of the South County within the Pajaro River watershed. As described in Section 2.2.1, *Project Location*, the Program area includes more than 39 miles of rugged, mountainous, often forested, watersheds and Pacific coastline that includes sandy beaches, coastal lagoons, and areas of steep coastal bluffs.

Natural Communities and Habitats

Within the Program area, there are approximately 26 natural communities that have been grouped into eight categories: forest/woodland, riparian, scrub/shrubland, grasslands, barren, aquatic/wetland, beaches/dunes/coastlines, and developed areas (Table 3.4-1).¹ The North Coast

¹ For a detailed description of each habitat type and community, including typical plant and wildlife species found in each community, refer to Appendix G.

Region consists of grassland and scrub/shrub lands along the coastal prairies and bluffs, transitioning into forest/woodland dominated communities inland with increasing slope and elevation, while the Mountain Region predominantly supports forest/woodland communities (Figure 3.4-1). The largely developed Urban Region of the County supports fewer natural communities and consists primarily of urban habitat with riparian corridors and wetland/lagoons, and forest/woodland and grassland communities in the foothills of the Aptos planning area. Within the predominantly agricultural alluvial and mountainous areas of the South County Region, habitats typically consist of developed communities to the south, such as croplands and pastures, and forest/woodland and scrub/shrub-land towards the north and east.

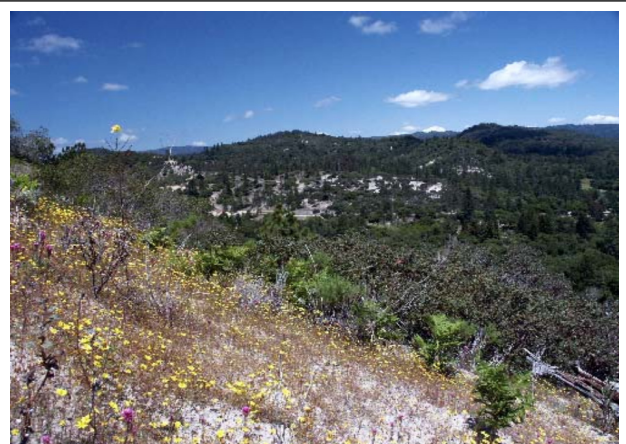
Table 3.4-1 Habitat Types and Associated Communities in Santa Cruz County

Habitat Type	Communities	Habitat Type	Communities
Forest/Woodland	Coastal Oak Woodland	Grasslands	Annual Grassland
	Closed-Cone Pine-Cypress		Perennial Grassland
	Eucalyptus	Barren	--
	Montane Hardwood-Conifer		Aquatic/ Wetland
	Montane Hardwood	Riverine and Freshwater Marsh	
	Ponderosa Pine	Saline Emergent Wetland	
	Redwood	Wet Meadow	
Riparian	Montane Riparian	Developed	Cropland
	Valley Foothill Riparian		Deciduous Orchard
Scrub/Shrub-land	Chamise-Redshank Chaparral		Pasture
	Mixed Chaparral		Urban
	Coastal Scrub		Vineyard

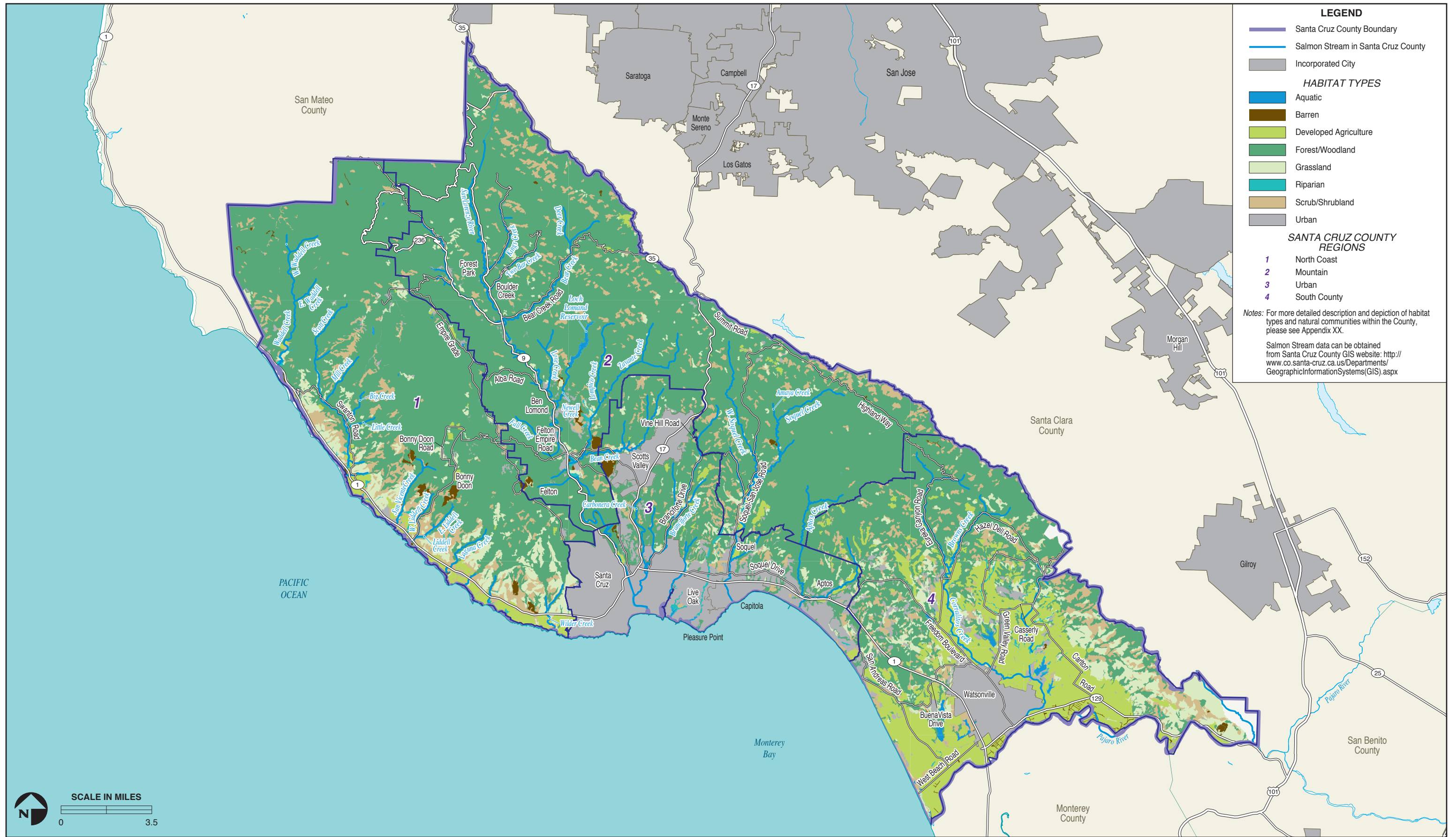
Notes: Beaches and incorporated coastal communities are not included within the Program area and have therefore been excluded from this analysis (refer to Appendix G).

Santa Cruz County Sandhills Habitat

Santa Cruz County Sandhills Habitat (Sandhills) is a unique natural community of plants and wildlife. The Sandhills is geographically limited to Santa Cruz County and found only on outcrops of Zayante sandy soil complexes known as the Zayante Series. The Zayante Series consists of light grey soils that are comprised of more than 90 percent sand particles derived from weathering of the marine sediments and sandstone formation. Due to its largely sandy complex, these soils drain very rapidly and hold very little moisture, resulting in limited nutrients available for vegetation and other organic matter (National Cooperative Soil Survey 1998; Sandhills Alliance for Natural Diversity 2005). Due to the unique features



In addition to supporting habitat for several rare plants and wildlife, the Sandhills support two rare and endemic plant communities - maritime coast range ponderosa pine forest and northern maritime chaparral. Photo: Land Trust of Santa Cruz County 2004.



Habitats of Santa Cruz County

FIGURE 3.4-1

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and limited occurrence of the Zayante Series, the Sandhills habitat type covers only approximately 4,000 acres of land restricted to the Mountain and North Coast Regions (see Figure 3.4-2), and has been severely impacted from mineral quarrying and urban development in these regions (Land Trust of Santa Cruz County 2004).

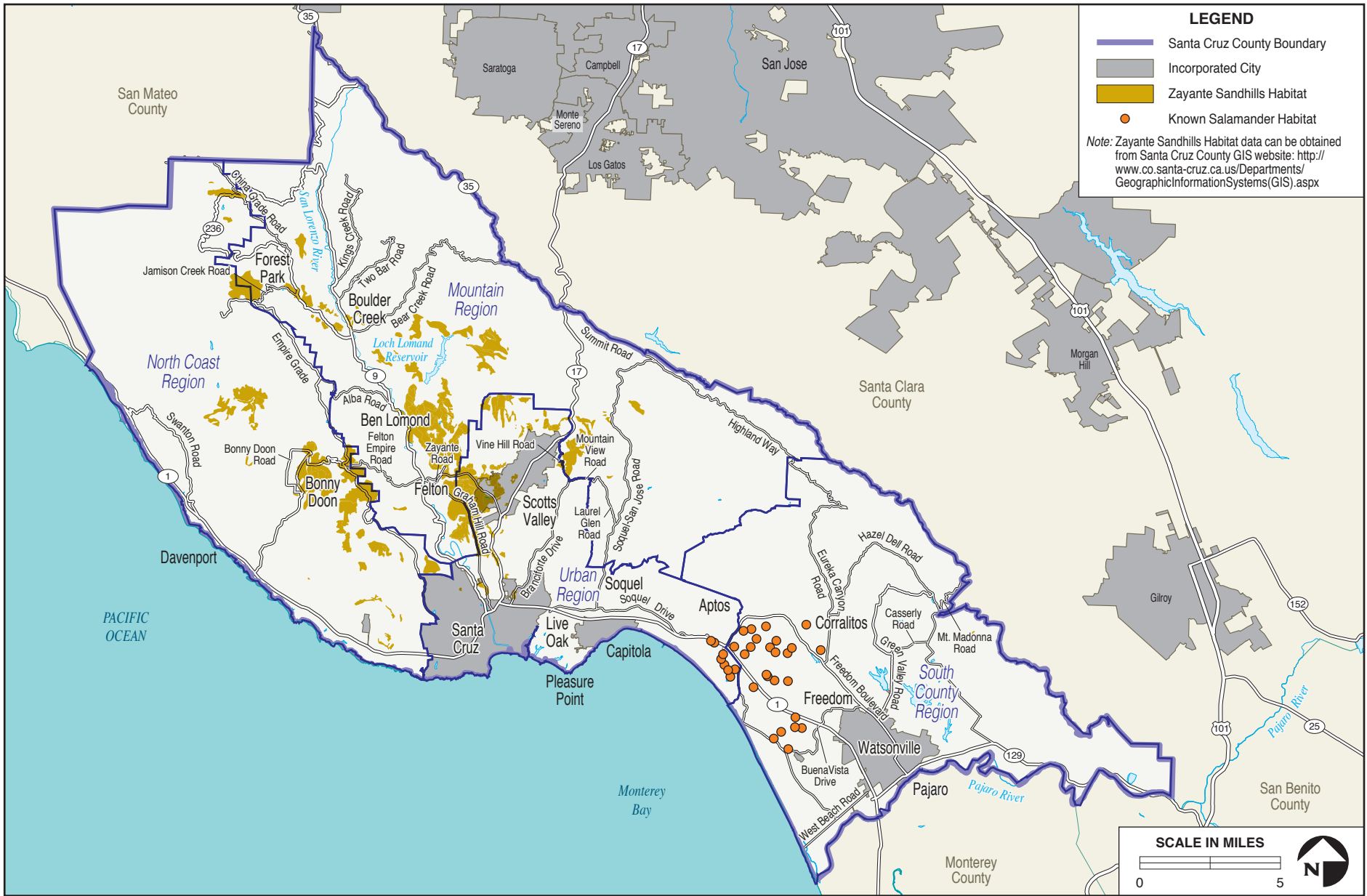
Due to the habitat extremes of these sandy soils and the narrow area in which these soils are found, a unique assemblage of ten identified plant and wildlife species have adapted to living in the Sandhills.² These species include: Ben Lomond spineflower (*Chorizanthe pungens* var. *pungens*); Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*); Bonny Doon manzanita (*Arctostaphylos silvicola*); Santa Cruz wallflower (*Erysimum teretifolium*); Santa Cruz cypress (*Cupressus abramsianar*); Santa Cruz monkeyflower (*Mimulus rattanii* ssp. *decurtatus*); Santa Cruz kangaroo rat (*Dipodomys venustus venustus*); Mount Hermon june beetle (*Polyphylla barbata*); and the Zayante band-winged grasshopper (*Trimerotropis infantilis*).

Stream Corridors and Riparian Habitats

Riparian communities occur at the interface between terrestrial and aquatic communities. In California, riparian communities generally support exceptionally rich animal communities even though they occupy a limited amount of the land cover. The importance of riparian areas in the County far exceeds their minor proportion of the total acreage because of their prominent location within the landscape and the intricate linkages between terrestrial and aquatic communities (Gregory et al. 1991). The presence of at least seasonal (and often year-round) water and abundant invertebrates provides foraging opportunities for many species, and the diverse habitat structure provides cover and nesting opportunities. Sensitive communities that may occur include riparian communities as well as the streams, wetlands, and waterbodies that the forests may surround.

The maturity and structural diversity of stream corridors and riparian communities in the County support a high diversity and density of vertebrate species, particularly birds. Many stream corridors within the County provide habitat for many common and sensitive fish species such as the Coho salmon (*Oncorhynchus kisutch*) and steelhead (*Oncorhynchus mykiss*), as well as other amphibious and reptilian species. The wider, more mature riparian corridors provide suitable foraging and breeding habitat for several functional groups of birds including insectivores (e.g., warblers, flycatchers), seed-eaters (e.g., finches), raptors, and cavity-nesters (e.g., swallows and woodpeckers) in addition to a variety of common amphibians, reptiles, and mammals. Riparian communities are also used heavily by migrants, including a variety of passerines, and wintering birds. Leaf litter, downed tree branches, and fallen logs provide cover for the arboreal salamander (*Aneides lugubris*), California newt (*Taricha torosa*), and Sierran chorus frog (*Pseudacris sierra*), among other species. Several other lizard species and many smaller mammals also use these riparian corridors (see Appendix G).

² As characterized in the Biological Resources Compendium (Appendix G), the Sandhills includes the Ponderosa Pine and Barren communities.



Zayante Sandhills and Salamander Habitat in Santa Cruz County

FIGURE 3.4-2

Special Status Plant and Wildlife Species

In addition to an abundance of common plant and wildlife species, habitat communities in the County also support a diversity of special-status plant and wildlife species. In total, 87 special-status plant species are known or thought to have potential for occurrence in the Program area, and include seriously threatened or endangered species such as the Scotts Valley polygonum (*Polygonum hickmanii*) and the Santa Cruz Mountain's pussypaws (*Calyptridium parryi* var. *hesseae*), along with many others.³ In addition, a total of 50 special-status wildlife species are known to occur in or very close to the County. These include species found in the coastal areas and rugged watersheds of the North Coast and Mountain Regions, such as the California red-legged frog (*Rana draytonii*), Santa Cruz long-toed salamander (SCLTS) (*Ambystoma macrodactylum croceum*), marbled murrelet (*Brachyramphus marmoratus*), Northern harrier (*Circus cyaneus*), and American badger (*Taxidea taxus*). Special-status species typical of the low-land areas of the Urban and South County Regions include the Monterey spineflower (*Chorizanthe pugens* var. *pugens*), Santa Cruz tarplant (*Holocarpha macradenia*), and Bald eagle (*Haliaeetus leucocephalus*) (see Appendix G). The local extent of habitat areas for the SCLTS is depicted in Figure 3.4-2.

Wildlife Corridors within the County

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors such as stream courses are segments of suitable habitat that provide connectivity between larger areas of suitable habitat, allowing species to disperse through otherwise unsuitable areas. On a broader level, such environmental or wildlife corridors also function as avenues along which wide-ranging wildlife can travel, plants can propagate, genetic interchange can occur, populations can move in response to environmental changes and natural disasters, and threatened species can be replenished from other areas. In California, environmental corridors often consist of riparian areas along streams, rivers, or other natural features. In addition, the rivers and streams themselves may serve as migration corridors for anadromous fish, including salmonids such as steelhead and Coho salmon.

Mountainous watersheds, creeks, streams, and other riparian areas serve as the primary wildlife corridors within the County and are generally more present or natural in the North Coast and Mountain regions. In the Urban and South County regions, wildlife corridors are typically limited to rural areas towards the north and east, away from developed areas of the County.

Current and Historic Use of Rodenticide in Santa Cruz County

Rodenticides are a chemical pest control, which typically come in the form of poison baits and are designed to target specific nuisance rodents, such as moles, gophers, rats, mice, and squirrels. Rodenticides come in one of three categories: acute toxicants, first-generation anticoagulants, and second-generation anticoagulants.⁴ Within the state, the type and application of rodenticides are regulated by the California Department of Pesticide Regulation (DPR).

³ The legal status, general habitat requirements, general distribution, and potential to occur in the Program area of the 57 special-status plants are provided in Appendix G. While 87 special-status plant species are known or thought to occur within the Program area, 30 species were excluded from this description as these species would not occur within areas of the County that would be eligible for cannabis cultivation and manufacturing under the Program, considering both known species locations and Program siting requirements (e.g., no coastal bluffs and related plant species would be affected since the Program would not license cannabis cultivation on coastal bluff resources).

⁴ Anticoagulants are substances that prevent or reduce the coagulation or clotting of blood.

On July 1, 2014, California DPR adopted new regulations that restrict the purchase, possession, and use of rodenticide baits that contain the active ingredients brodifacoum, bromodialone, difenacoum, and difethialone, which are known as second-generation anticoagulant rodenticides. The regulations limit purchase, possession, and use of second-generation anticoagulants to certified pesticide applicators and those under their direct supervision. California DPR adopted these regulations due to overwhelming evidence of wildlife weakened or killed by second-generation anticoagulants. Other categories of rodenticides—the first-generation anticoagulants, acute toxicants, and certain burrow fumigants—are still available to consumers.

All rodenticides are toxic to wildlife, but second-generation anti-coagulants are unique in that rodents frequently eat more than a single dose of them, and the effects of that dose are often delayed for a few days. Meanwhile, the rodents may continue to eat more poison, resulting in a super-lethal dose that builds up in their tissues. When predators eat these weakened or dead rodents, the dose may also be deadly to the predators. Incident reports collected by California DPR conclude that second-generation anticoagulant products pose significant risks to non-target wildlife and that these risks are greater than those posed by other rodenticide active ingredients.

Used by both commercial (commercial retailers, warehouses, restaurants) and general consumers for the elimination or control of pest and nuisance species, primarily mice or rats, the use of rodenticides has been proven to lead to the poisoning or death of both target and non-target wildlife species in the County. Non-target species include predator species, such as owls, hawks, raccoons, bobcats, mountain lions, foxes, skunks, coyotes, and bears. While specific records are not available for the County, there have been several observed cases of non-target species poisoning due to application of rodenticides (California DPR 2015; Tai Moses 2017).

Rodenticides are used by the existing cannabis cultivation industry in the County; however, it is unclear what type of rodenticides are used, and to what degree. Cannabis cultivation is disproportionately located in mountainous areas and in locations interfacing directly with wildlands inhabited by wildlife that are known to accidentally ingest rodenticides or prey that has ingested rodenticides, leading to illness and death of wildlife beyond the target species of the rodenticide. Through investigation into rodenticide use in the County as part of this EIR, it is apparent that the cannabis industry's use of rodenticide is a part of a much wider application of these chemicals by many other residences and businesses to control pests within a range of uses in the County.

3.4.3 Regulatory Setting

Biological resources are governed by federal, state, and local laws and ordinances. Appendix A describes federal and state regulations that pertain to biological resources in the Program area. State and local regulations that are directly relevant to future commercial cannabis cultivation and manufacturing under the Program are discussed below. The General Plan Conservation and Open Space Element and the SCCC both contain policies and regulations for the protection of important biological resources.

3.4.3.1 State

Section 401 of the Clean Water Act

Under Section 401 of the Clean Water Act (CWA), the State Water Resources Control Board (SWRCB) must approve a Section 404 permit for all proposed dredging or filling activities that affect waters of the U.S. The Regional Water Quality Control Board (RWQCB) regulates these activities and issues water quality certifications for those activities requiring a Section 404 permit. In addition, the RWQCB has authority to regulate the discharge of “waste” into waters of the State pursuant to the Porter-Cologne Water Quality Control Act (see also, Appendix A).

California Fish and Game Code

The California Fish and Game Code includes regulations governing the use of, or impacts on, many of the state’s fish, wildlife, and sensitive habitats. The California Department of Fish and Wildlife (CDFW) exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of Sections 1601–1603 of the Fish and Game Code. The Fish and Game Code requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body and for the removal of riparian vegetation.

Certain sections of the Fish and Game Code describe regulations pertaining to certain wildlife species. For example, Fish and Game Code Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW. Raptors such as eagles, falcons, hawks, and owls, and their nests are specifically protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Non-game mammals are protected by Fish and Game Code Section 4150, and other sections of the code protect other taxa.

California Pesticides and Pest Control Operations

The California Pesticide and Pest Control Operations code (California Code of Regulations Title 3, Division 6, Pesticides and Pest Control Operations) includes a comprehensive pest control operations program governing the use and management of pest control substances and related industries. The goal of California’s pesticide regulatory program is to protect people and the environment from harm that could be caused by unsafe pesticide use. Pesticide use is controlled by federal, state, and local government agencies. The U.S. Environmental Protection Agency (U.S. EPA) sets minimum pesticide use standards and delegates pesticide enforcement regulatory authority to the states. California’s pesticide laws and regulations are typically more rigorous and carried out by regulatory programs wider in scope than any other state.

Public Resources Code, Section 21083.4 (Oak Woodland Conservation)

California Public Resources Code (CPRC), Section 21083.4 requires that, as part of determining whether an environmental impact report, a negative declaration, or a mitigated negative declaration shall be required for any project (Section 21081.1 CPRC), a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect

on the environment. If a significance finding is made the county shall require oak woodland mitigation that may include one or more of the following measures: (1) conserve oak woodlands through the use of conservation easements, (2) plant an appropriate number of trees, (3) contribute funds to the Oak Woodlands Conservation Fund, and (4) other measures as approved by the county that reduce the impact to a less than significant level. Several types of projects are exempt from these provisions including those undertaken pursuant to an approved Natural Community Conservation Plan, affordable housing projects, conversion of oak woodlands on agricultural land, and when the regulatory program of a state agency requires a plan or other written documentation containing environmental information (Section 21080.5 CPRC). For purposes of this section, the term “oak” is defined as a native tree species in the genus *Quercus* with a diameter at breast height of greater than 5 inches and is not a species designated as use for commercial purposes (Section 4526 of the CPRC).

3.4.3.2 Local

County of Santa Cruz General Plan and Local Coastal Program

Conservation and Open Space Element

The Conservation and Open Space Element, Chapter 5 of the County of Santa Cruz General Plan and Local Coastal Program (General Plan/LCP), guides land use planning to provide a balance of conservation and preservation of natural resources. The following objectives and policies of the Conservation and Open Space Element pertain to the Program. For a comprehensive list of all objectives and policies, see Chapter 5 of the General Plan.

Objective 5.1 Biological Diversity (LCP). To maintain the biological diversity of the County through an integrated program of open space acquisition and protection, identification and protection of plant habitat and wildlife corridors and habitats, low-intensity and resource compatible land uses in sensitive habitats and mitigations on projects and resource extraction to reduce impacts on plant and animal life.

Policy 5.1.4 Sensitive Habitat Protection Ordinance (LCP). Implement the protection of sensitive habitats by maintaining the existing Sensitive Habitat Protection Ordinance. The ordinance identifies sensitive habitats, determines the uses that are allowed in and adjacent to sensitive habitats, and specifies required performance standards for land in or adjacent to these areas. Any amendments to this ordinance shall require a finding that sensitive habitats shall be afforded equal or greater protection by the amended language.

Policy 5.1.6 Development within Sensitive Habitats (LCP). Sensitive habitats shall be protected against any significant disruption of habitat values; and any proposed development within or adjacent to these areas must maintain or enhance the functional capacity of the habitat. Reduce in scale, redesign, or, if no alternative exists, deny any project which cannot sufficiently mitigate significant adverse impacts on sensitive habitats unless approval of a project is legally necessary to allow a reasonable use of the land.

Policy 5.1.7 Site Design and Use Regulations (LCP). Protect sensitive habitats against any significant disruption or degradation of habitat values in accordance with the Sensitive Habitat Protection Ordinance. Utilize the following site design and use regulations on parcels containing these resources, excluding existing agricultural operations:

- (a) Structures shall be placed as far from the habitat as feasible.

- (b) Delineate development envelopes to specify location of development in minor land divisions and subdivisions.
- (c) Require easements, deed restrictions, or equivalent measures to protect that portion of a sensitive habitat on a project parcel which is undisturbed by a proposed development activity or to protect sensitive habitats on adjacent parcels.
- (d) Prohibit domestic animals where they threaten sensitive habitats.
- (e) Limit removal of native vegetation to the minimum amount necessary for structures, landscaping, driveways, septic systems and gardens.
- (f) Prohibit landscaping with invasive or exotic species and encourage the use of characteristic native species.

Policy 5.1.8 Chemicals within Sensitive Habitats (LCP). Prohibit the use of insecticides, herbicides, or any toxic chemical substances in sensitive habitats, except when an emergency has been declared, when the habitat itself is threatened, when a substantial risk to public health and safety exists, including maintenance for flood control by Public Works, or when such use is authorized pursuant to a permit issued by the Agricultural Commissioner.

Policy 5.1.9 Biotic Assessments (LCP). Within the following areas, require a biotic assessment as part of normal project review to determine whether a full biotic report should be prepared by a qualified biologist:

- (a) Areas of biotic concern, mapped.
- (b) Sensitive habitats, mapped & unmapped.

Policy 5.1.12 Habitat Restoration with Development Approval (LCP). Requires as a condition of development approval, restoration of any area of the subject property which is an identified degraded sensitive habitat, with the magnitude of the restoration to be commensurate with the scope of the project.

Objective 5.2 Riparian Corridors and Wetlands (LCP). To preserve, protect and restore all riparian corridors and wetlands for the protection of wildlife and aquatic habitat, water quality, erosion control, open space, aesthetic and recreational values and the conveyance and storage of flood waters.

Policy 5.2.3 Activities within Riparian Corridors and Wetlands (LCP). Development activities, land alternation, and vegetation disturbance within riparian corridors, wetlands, and required buffers shall be prohibited unless an exception is granted per the Riparian Corridor and Wetlands Protection Ordinance. As a condition of riparian exception, require evidence of approval for development from the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and other federal or state agencies that may have regulatory authority over activities within riparian corridors and wetlands.

Policy 5.2.4 Riparian Corridor Setback (LCP). Require a buffer setback from riparian corridors in addition to the specified distances found in the definition of riparian corridor. This setback shall be identified in the Riparian Corridor and Wetland Protection Ordinance and established based on stream characteristics, vegetation and slope. Allow reductions to the buffer setback only upon approval of a riparian exception. Require a 10 foot separation from the edge of the riparian corridor buffer to any structure.

Policy 5.2.5 Setbacks from Wetlands (LCP). Prohibit development within the 100 foot riparian corridor of all wetlands. Allow exceptions only where consistent with the Riparian Corridor and Wetlands Protection Ordinance, and in all cases, maximize distance between proposed structures and wetlands. Require measures to prevent water quality and degradation from adjacent land uses, as outlined in the Water Resources section.

Policy 5.2.6 Riparian Corridors and Development Density (LCP). Exclude land within riparian corridors in the calculation of development density per new parcel size. Grant full density credit for the portion of the property outside the riparian corridor which is within the required buffer setback, excluding areas over 30 percent slope, up to a maximum of 50 percent of the total area of the property which is outside the riparian corridor.

Policy 5.2.9 Management Plans for Wetland Protection (LCP). Require development in or adjacent to wetlands to incorporate the recommendations of a management plan which evaluates: migratory waterfowl use December 1 to April 30; compatibility with agricultural use and biotic and water quality protection; maintenance of biological productivity and diversity; and the permanent protection of adjoining uplands.

Objective 5.4 Monterey Bay and Coastal Water Quality (LCP). To improve the water quality of Monterey Bay and other Santa Cruz County coastal waters by supporting and/or requiring the best management practices for the control and treatment of urban run-off and wastewater discharges in order to maintain local, state and national water quality standards, protect County residents from health hazards of water pollution, protect the County's sensitive marine habitats and prevent the degradation of the scenic character of the region.

Policy 5.4.1 Protecting the Monterey Bay National Marine Sanctuary from Adverse Impacts (LCP). Prohibit activities which could adversely impact sensitive habitats of the National Marine Sanctuary, including the discharge of wastes and hazardous materials. The main sources of concern are wastewater discharge, urban runoff, toxic agricultural drainage water (including flows originating outside of Santa Cruz County), and the accidental release of oil or other hazardous material from coastal tanker traffic.

Objective 5.6 Maintaining Adequate Streamflows (LCP). To protect and restore in-stream flows to ensure a full range of beneficial uses including recreation, fish and wildlife habitat, and visual amenities as part of an ecosystem-based approach to watershed management.

Policy 5.6.1 Minimum Streamflows for Anadromous Fish (LCP). Pending a determination based on a biological assessment, preserve perennial stream flows at 95 percent of normal levels during summer months, and at 70 percent of the normal winter baseflow levels. Oppose new water rights application and time extensions, change petitions, or transfer of existing water rights which would individually diminish or cumulatively contribute to the diminishment of the instream flows necessary to maintain anadromous fish runs and riparian vegetation below the 95 percent/70 percent standard.

Objective 5.7 Maintaining Surface Water Quality (LCP). To protect and enhance surface water quality in the County's streams, coastal lagoons and marshes by establishing best management practices on adjacent land uses.

Policy 5.7.1 Impacts from New Development on Water Quality (LCP). Prohibit new development adjacent to marshes, streams and bodies of water if such development would cause adverse impacts on water quality which cannot be fully mitigated.

Santa Cruz County Code, Chapter 16.30 – Riparian Corridor and Wetlands Protection

The purpose of this chapter is to minimize or eliminate any development activities in the riparian corridor, and preserve, protect, and restore riparian corridors for: protection of wildlife habitat; protection of water quality; protection of aquatic habitat; protection of open space, cultural, historical, archaeological, paleontological, and aesthetic values; transportation and storage of floodwaters; prevention of erosion; and to implement the policies of the General Plan and the Local Coastal Program Land Use Plan. The riparian corridor and wetlands protection code limits development activities in riparian corridors. No one can undertake any development activities in riparian corridors or their buffer zones other than those allowed through exemptions and exceptions as defined in Chapter 16.30.

Santa Cruz County Code, Chapter 16.32 – Sensitive Habitat Protection

The purposes of this chapter are to minimize the disturbance of biotic communities that are rare or especially valuable because of their special nature or role in an ecosystem, and which could be easily disturbed or degraded by human activity; to protect and preserve these biotic resources for their genetic, scientific, and educational values; and to implement policies of the General Plan and the Local Coastal Program Land Use Plan. In addition, no toxic chemical substance shall be used in a sensitive habitat. No one can begin development activity within an area of biotic concern until a biotic approval has been issued unless such activity has been reviewed for biotic concerns concurrently with the review of a development or land division application pursuant to Chapter 18.10 of the Santa Cruz County Code.

SCCC Chapter 16.32 also establishes a salamander protection zone (S-P zone) which provides additional protection of the population and habitat of the SCLTS (*Ambystoma macrodactylum croceum*) associated with the Valencia Lagoon population. This zone district was put in place to allow for the development in the upland habitat of the neighborhood south of the lagoon and is unique to this known breeding pond. The S-P zone is approximately located in Aptos between the Rio Del Mar and Freedom Boulevard exits. It extends approximately 1,500 feet south of Highway 1, between these two exits. Properties located in the S-P zone are subject to additional requirements found in Section 16.32.090 of the SCCC. There are approximately 12 known breeding ponds and several pond suspected of supporting SCLTS in the area between Aptos, Corralitos and Watsonville. Upland habitat within ¼ mile of a known or suspected breeding pond is protected under Chapter 16.32 as sensitive habitat. The salamander is listed by the federal government as an endangered species, and by the State of California as a fully protected species; the highest level of protection allowed by the State.

SCCC Chapter 16.32 includes a requirement as a condition of approval that there be restoration of any area which is a degraded sensitive habitat or has caused or is causing the degradation of a sensitive habitat, provided, that any restoration required shall be commensurate with the scale of the proposed development.

Santa Cruz County Code, Chapter 16.34 – Significant Trees Protection

The purpose of this chapter is to preserve significant trees and forest communities on private and public property in order to protect and enhance the County's natural beauty, property values, and tourist industry. This code regulates the removal of trees in the Coastal Zone. This chapter establishes

the type of trees to be protected, the circumstances under which they may be removed, and the procedures for obtaining a permit for their removal. No one may cause, permit, aid, abet, suffer, or furnish equipment or labor to remove, cut down, or trim more than one-third of the green foliage of, poison, or otherwise kill or destroy any significant tree, as defined in this chapter within the Coastal Zone until a significant tree removal approval for the project has been obtained.

3.4.4 Methodology and Assumptions

This analysis of potential biological resource impacts reviews the existing environmental setting in the Program area and identifies special-status plant and wildlife species and sensitive or regulated habitats potentially affected by the Program due to removal of sensitive communities or species or potential degradation of water quality caused by herbicide/pesticide use and releases of sediment, including analysis of both the Project scenario and the More Permissive Project scenario. Refer to Section 3.0, *Introduction and Approach to Analysis*, for a detailed discussion of projected cannabis activities in the County due to Program implementation.

The analysis accounts for provisions of the Program that require: “All licenses issued under this Chapter must be consistent with the County’s policies, objectives, laws, regulations, and programs related to land use, including those related to the County’s General Plan and Local Coastal Program.” In particular, this analysis accounts for the County’s existing policies and regulations protecting known local resources, including the Sandhills Habitat area under the Sandhills Habitat Conservation Plan (HCP) and SCCC Chapter 16.32, which establishes a S-P zone to protect the habitat and population of the SCLTS.

3.4.5 Significance Criteria

CEQA Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2017 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the Program may have a significant adverse impact related to biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW and the U.S. Fish and Wildlife Service (USFWS);
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW and USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.4.6 Environmental Impact Analysis and Mitigation

This section discusses the potential impacts to biological resources associated with the Program. Where there are potentially significant or significant and unavoidable impacts, mitigation is proposed and the residual impact is determined.

3.4.6.1 Program Impacts

Impact BIO-1. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on unique, rare, threatened, or endangered plant or wildlife species. Impacts would be less than significant with mitigation.

Impact BIO-1.1 – Direct Cultivation/Manufacturing. Implementation of the Program could result in direct adverse impacts to special-status plant or wildlife species through licensing and operation of new or expanded commercial cannabis cultivation and cannabis product manufacturing sites and facilities. Eligible cultivation and manufacturing sites are located throughout the County and have a high potential to occur within the range of special-status species known to exist within the County and Program area.⁵ As detailed in Section 3.0, *Introduction and Approach to Analysis*, new cannabis canopy would be limited to 8 to 43 acres countywide under the Program, with cultivation of up to an additional 147 acres on CA zoned land by existing farmers, primarily within existing greenhouses. From a Countywide perspective, direct impacts may be limited to a relatively small area. There is also potential for existing cannabis operations to relocate within a current site, move to a new site, or close entirely. Existing cannabis operations that move or abandon an existing location would be required to restore the site from any degradation, consistent with County General Plan policy.

However, Program cannabis activities within the area of license eligibility of either the Project or More Permissive Project scenario may affect special-status plant and wildlife species through disturbance of vegetation, individual species, or populations, and the disturbance, modification, or destruction of habitat. Cultivation, manufacturing, and associated construction activities could result in both temporary and permanent disturbance of sensitive or special-status species as a result of soil tilling, grading, excavation, fill placement, placement of structures such as greenhouses, drying sheds, or other infrastructure, degradation of water quality, and hydrological disruption such as dewatering or diversion, as well as injury or mortality of individuals by equipment, vehicle traffic, and worker foot traffic.

Although many cannabis cultivation operations are known to employ organic techniques, the use of herbicides, pesticides, fertilizer, or other chemicals that are used during the growth, manufacturing, or construction process could directly harm plants or wildlife and their habitat. For instance, if such

⁵ Refer to Appendix G for a list and description of special-status plants and wildlife known to occur within the Program area.

chemicals are used in areas where they could wash into aquatic habitats, they would have the potential to adversely affect the survival, reproduction, and growth of individual fish. Rodenticides consumed directly by wildlife or indirectly through consumption of poisoned food sources could have adverse effects on sensitive species as well. Potential impacts to specific biological resources within the County are discussed herein.

Special-Status Fish Species or Essential Fish Habitat (EFH). With regard to special-status fish species, restrictions provided in Chapter 2, *Project Description*, include required setbacks from streams and other water bodies. Similarly, SCCC Chapter 16.30 would prohibit associated development activities within specified setbacks from streams and other water bodies. Therefore, the Program is not expected to result in direct adverse effects on special-status fish or EFH due to either direct impacts on habitat, or to any direct injury or mortality of fish due to development or other activities. Further, because licensees would be required to comply with all local, state, and federal laws regarding stormwater management, the Program is not expected to result in the degradation of aquatic habitat for these species due to increases in erosion or sedimentation (see also Section 3.9, *Hydrology and Water Quality*). However, water demand for irrigation could total as much as 643 acre feet per year Countywide. Water drawn either directly from fish-bearing streams or from wells that are hydrologically connected to fish-bearing streams could reduce stream flows, particularly in late summer months when water demand for crops is high and stream levels are at their lowest. Therefore, direct impacts to federally threatened Central California Coast steelhead and South-Central California Coast steelhead, the federal and state endangered Central California Coho salmon, the Monterey roach (*Lavinia symmetricus subditus*), the federally endangered tidewater goby (*Eucyclogobius newberryi*), and EFH are considered *potentially significant*.

California Listed Species of Special Concern. Suitable habitat for California species of special concern, which include the American badger (*Taxidea taxus*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), and ringtail (*Bassariscus astutus*), is relatively common and widespread in the Program area, and the potentially suitable habitat being impacted as a result of the Program would constitute a very small proportion of regionally available habitat. Additionally, the Program is not expected to result in a loss of riparian habitat due to its required setbacks for both scenarios, which is often used by both San Francisco dusky-footed woodrats and ringtails for nesting/denning. Therefore, the Project and More Permissive Project are not expected to result in a substantial loss or disruption of habitat for these species through cannabis cultivation and manufacturing activities. Impacts on the Blainville's horned lizard (*Phrynosoma blainvillii*) are expected to be negligible, as the species typically prefers microhabitats of sandy, loosely textured soils which are not expected to be disrupted or lost through licensing of cannabis cultivation or manufacturing sites. Further, potential impacts may occur to California amphibious and reptilian species of concern, including the western pond turtle (*Actinemys marmorata*), foothill yellow-legged frog (*Rana boylei*), California giant salamander (*Dicamptodon ensatus*), and the Santa Cruz black salamander (*Aneides niger*). These species are inhabitants of ponds, streams, riparian corridors, and moist woodlands and forests. However, the Project and More Permissive Project are not expected to result in loss of aquatic habitat for any of these species, or in the loss of habitat close to water bodies where they concentrate much of their activities, and required setbacks from riparian and aquatic habitats would also reduce the potential for, and magnitude of, impacts to these individuals. Therefore, direct impacts to California listed species of special concern are considered *less than significant*.

Nesting Birds and Habitat. Given the range of activities anticipated to occur for both cannabis cultivation and manufacturing, implementation of the Program has the potential to result in the injury or mortality of birds, especially eggs or young in nests. Such impacts may occur because of vegetation

removal or the disturbance of individuals nesting within or immediately adjacent to cultivation or manufacturing sites. In addition, implementation of the Program would result in a loss of nesting habitat. However, as described above, the Program includes physical restrictions on cultivation areas and eligible manufacturing sites to control where and how cannabis could be cultivated and manufactured. Such restrictions include required setbacks of 100 feet from a perennial stream, 50 feet from an intermittent or ephemeral stream, and 100 feet from the high water mark of another water body. Similarly, SCCC Chapter 16.30 would prohibit associated manufacturing and development activities within 50 feet of a perennial stream, 30 feet of an intermittent stream, and 100 feet of the high water mark of a lake, wetland, estuary, lagoon, or natural body of standing water. Therefore, the Program is not expected to result in a loss of riparian or wetland nesting habitat. Further, impacts on non-sensitive upland habitats (see Impact BIO-2 for a discussion of impacts on sensitive upland habitats) represent a very small proportion of the upland habitats that support these species regionally. Thus, loss of regionally common habitat is not expected to result in a substantial effect on these species' populations. Given the widespread nature of the Program area, although the total acreage of disturbance would be limited, impacts on active nests of both common and sensitive bird species could occur; therefore, this impact is considered *potentially significant*.

Pallid Bat. The pallid bat (*Antrozous pallidus*) is a California species of special concern that is uncommon in the North Coast and Mountain Regions of the Program area. Pallid bats will roost in deep crevices in trees such as coast redwood (*Sequoia sempervirens*), as well as in the hollows of large snags or in abandoned buildings in a variety of habitats. Although the extent of construction and operation activities anticipated to occur under the Program is relatively limited, the Project may result in direct impacts on pallid bats. For example, individual bats could be physically injured or killed, subjected to physiological stress because of being disturbed, or exposed to increased predation if flushed during daylight hours if trees or old buildings that contain roosting colonies or individual bats are removed or demolished. Program-related disturbance in close proximity to a maternity roost could also potentially cause females to abandon their young. In addition, the removal of trees in order to clear a site for cultivation could result in the loss of breeding or roosting sites for pallid bats. While any one site is unlikely to impact breeding habitat for either species due to their rarity in the Program area, Program-wide impacts could be significant because the species' populations and available roosting habitats are limited locally and regionally. Loss of any occupied roosting habitat or individuals might have a substantial effect on local and regional populations of the species. Thus, impacts of both the Project and More Permissive Project on the pallid bat are considered *potentially significant*.

Other Threatened or Endangered Individuals and Habitat. Cultivation and manufacturing activities under the Program could result in disturbance of breeding, foraging, or dispersal habitat for federal- or state-listed threatened or endangered species. Suitable foraging, dispersal, and breeding habitat for these species consists of sensitive areas and natural communities included within the area of eligibility for licensing of cannabis cultivation and manufacturing facilities under the Program. While proposed development restrictions and setback requirements would limit or avoid the loss of suitable habitat for several of these special-status species, implementation of the Program would still have the potential to result in the permanent loss of a limited, but unknown amount of such habitat. In addition, activities associated with construction and operation would have the collective potential to result in the direct injury or mortality of threatened or endangered individuals and permanent loss of suitable upland foraging, dispersal, and breeding habitat represents a substantial impact on the species due to their regional or global rarity and the highly localized nature of several species.

Therefore, impacts of both the Project and More Permissive Project on these species are considered *potentially significant*.

Special Status Plants. Although overall acreage of disturbance is projected to be relatively small, Program activities may result in impacts, including habitat loss and degradation, of 13 federal- or state-listed plant species and 39 plant species that are not federal- or state-listed, but are categorized by the California Native Plant Society (CNPS) as species of concern ranging in California Rare Plant Rank (CRPR) from 1 to 4 (see Appendix G). Although potential cannabis cultivation and manufacturing activities are anticipated to occupy relatively limited acres (refer to Section 3.0, *Introduction and Approach to Analysis*), Program activities may also result in injury or mortality of individuals due to land clearing, site grading, vegetation removal, worker or farmer foot traffic, equipment use, pesticide/herbicide use, or vehicle traffic. Operation and maintenance activities involving vegetation control, herbicide and pesticide use, or foot or equipment traffic could further reduce local populations of special-status plant species by disturbing and degrading their habitat. While the Program includes development restrictions and setback requirements which would reduce adverse effects on sensitive species or habitat, the loss of suitable habitat, habitat fragmentation, and individual plant loss could occur as these listed species may grow in habitat outside protected areas. Due to the regional rarity of these species, this impact is considered *potentially significant*. SCCC Chapter 16 requires identification of resources onsite prior to issuance of land clearing permits, grading permits or development permits, but it is uncertain whether this existing process would capture all potential impacts to special-status plants associated with licensed cannabis activities.

Rodenticide Impacts to Sensitive Species. The use of rodenticides and poison baits for pest control may result in both direct and secondary poisoning of sensitive mammals, birds, amphibians, or reptiles, either through the exposure to poison baits and chemicals or through the consumption of rodents or invertebrates that have consumed the poison bait. In particular, use of rodenticides in rural and agricultural areas presents a risk for sensitive species such as mountain lions, foxes, and raptors. Rodenticide is used Countywide, in cannabis cultivation and manufacturing activities as well as by residents and businesses to control pests. In particular, cannabis cultivation is located in mountainous or rural areas with a wildland interface that includes wildlife that may come in contact with and consume rodenticides. Based on the 2016 License Registration, 16 cultivators (2.1 percent) of the 760 respondents identified their desire to use rodenticides for pest control on current or future licensed sites (see Appendix D). However, this data may not reliably predict how, where, or how often rodenticides may be used by cannabis activities. Additionally, it is unclear what type of rodenticide would be used for cannabis cultivation sites. It is foreseeable that cannabis activities may use second generation rodenticides through a commercial applicator, which may lead to unintentional poisonings. Adverse effects on wildlife from rodenticide application remains a significant concern throughout the County from a range of uses, and impacts from the use of rodenticides by cannabis activities have the potential to adversely affect wildlife, including sensitive species. Therefore, Program impacts to biological resources from the use of rodenticides are considered *potentially significant*. Further, given the common application of rodenticides by many other commercial and residential users, the sensitivity of species, and the known biological effects of rodenticides within the County, impacts resulting from the use of rodenticides are discussed in a cumulative degree (refer to Section 3.4.6.4, *Cumulative Impacts*).

Mitigation Measures

MM BIO-1.1a. Special-status Species Habitat Assessment. Licensees who apply for a cultivation or manufacturing license for a site that would involve clearing of established native

vegetation in an area that has been identified as being potentially occupied by a special-status wildlife species, or a federal or state-listed special-status plant species, are required to have County Cannabis Licensing Office staff, or other qualified staff or professionals determine through a site visit whether a biotic assessment is necessary based on the potential for special-status species to occur. If a biotic assessment is required, the Licensee shall hire a County-approved biologist to conduct an assessment of habitat suitability for such species. A biotic assessment would consist of a consulting biologist determining whether protected species or habitat may be present, and whether avoidance, minimization or compensatory measures are necessary. In addition, the assessment shall determine the extent to which specific restoration measures are required where disturbance associated with previous cultivation on the property being considered for licensing has occurred. Habitat suitability shall be determined by the qualified biologist based on the following standards:

Special-Status Wildlife: To determine habitat suitability, a County-approved biologist will determine whether the impacted areas consist of habitat that can support listed species, including but not limited to California red-legged frog, California tiger salamander, SCLTS, or San Francisco garter snake. The biologist will take into account conditions that may preclude the use of the area by such species, such as developed lands or historically tilled agricultural fields; lands not within the dispersal of the nearest suitable breeding habitat, or lands separated from the nearest breeding habitat by barriers to dispersal, and will document these conditions in making a final determination.. Should the assessment result in a determination that there is a potential to encounter listed species, the biologist shall include measures to avoid, minimize and mitigate impacts to those species, including site design, and exclusionary fencing, timing restrictions, or other measures specific to the species that may be present. Alternatively, the Licensee may request that an assessment be conducted through the County's biological resources assessment process, which is carried out by County resource planners.

Special-Status Plants: To determine habitat suitability, a County-approved biologist will determine whether the impact areas (plus a 100-foot buffer) consist entirely of land uses that are unsuitable for special-status plants, such as historically tilled agricultural fields or gardens, and developed or degraded lands.⁶ Alternatively, the Licensee may request that an assessment be conducted through the County's biological resources assessment process, which is carried out by County resource planners.

Marbled murrelet: Habitat suitability for marbled murrelet shall be determined by a County-approved biologist based on the presence or absence of old-growth habitat within 0.25-mile of the proposed cultivation or manufacturing site, unless the site consists of existing tilled agricultural fields or garden area or is existing developed land. Alternatively, the Licensee may request that an assessment be conducted through the County's biological resources assessment process, which is carried out by County resource planners.

- If suitable old-growth habitat is identified within 0.25-mile of a previously undisturbed site, the Licensee will assume that the old-growth forest is occupied by the marbled murrelet and will establish a 0.25-mile buffer zone around the old-growth forest during the nesting season (March 25 through September 15, as defined by the Pacific Seabird Group Marbled Murrelet Technical Committee [2003]) or applicable corvid management plan, such as the Marbled

⁶ For the purposes of this Program, historically tilled agricultural fields refers to land that has been tilled or graded for the purpose of agricultural crop production sometime within the last 5 years.

Murrelet Recover Plan published by the U.S. Fish and Wildlife Service, to ensure that no nests of marbled murrelets will be disturbed by construction or operation activities. No construction of new buildings, roads, driveways, or utilities may be performed within the buffer during the nesting season; OR,

- If the Licensee chooses not to assume presence of the marbled murrelet, the County-approved biologist shall conduct protocol-level presence/absence surveys for the species prior to the onset of initial ground-disturbing activities. The survey will be conducted per the guidelines issued by the Pacific Seabird Group Marbled Murrelet Technical Committee (2003).

The results of the survey will be submitted to the County of Santa Cruz for review and approval. If it is determined that no marbled murrelets are present within 0.25-mile of the site, no seasonal buffer zone will be required. If marbled murrelets are determined to be present, a 0.25-mile buffer zone around the old-growth forest during the nesting season shall be implemented to ensure no nests of marbled murrelets will be disturbed by construction or operation activities. No new activities will be performed within the buffer during the nesting season.

The results of any required habitat suitability assessment(s) shall be submitted to the County for review and approval. If it is determined that the site does not support suitable habitat for any special-status plant or wildlife species, no further investigation or mitigation shall be required. If it is determined that the site or nearby vicinity supports potentially suitable habitat for special-status species, the following pre-activity surveys shall be required:

Other Special-Status Wildlife: A County-approved biologist will survey the work site a minimum of 48 hours prior to initial ground-disturbing activities, or the first instance of ground-disturbance that occurs following issuance of a Program License for a given cultivation site, if determined necessary by the County, during construction activities at intervals recommended by the biologist. If California red-legged frogs or California tiger salamanders are identified to occur at the site, a qualified biologist will relocate the individuals to an appropriate relocation site outside of the work area. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs and only USFWS- and CDFW-approved biologists will participate in activities associated with the capture, handling, and monitoring of California tiger salamanders. Because the SCLTS is fully protected, individuals cannot be handled. To avoid take of this species, no conversion of oak woodland to cannabis production shall occur within 0.25-mile of a known or suspected pond or between such ponds up to 1 mile apart, and surveys of ponds within 1 mile of proposed cannabis activities shall be required. No license shall be issued for cannabis activities within 0.25-mile of a pond unless it is for indoor cultivation or manufacturing in an existing structure.

Because the San Francisco garter snake is a state fully protected species, individuals shall not be handled. To avoid take of this species, surveys shall be required for proposed cannabis activities in the vicinity of the Waddell Creek area.

Special-Status Plants: In cases where an initial site assessment determines that special-status plants may occur in the disturbance area, prior to initial ground disturbance, a focused survey in the appropriate bloom season for potentially occurring special-status plant species shall be conducted in the identified suitable habitat and a 50-foot survey buffer. The purpose of the survey will be to assess the presence or absence of the potentially occurring species. If none

of the target species are found in the impact area or surrounding 50-foot buffer, then no further MMs will apply.

If CRPR 1 or 2 special-status plant species occur on a potential cultivation/manufacturing site, Licensing staff shall complete an initial assessment. If avoidance of these species is not feasible, a biotic assessment shall be completed by a County-approved biologist. If the area includes sensitive habitat, the assessment shall include avoidance and minimization measures as well as mitigation and/or restoration measures. Annual reports shall be required for a minimum of 5 years, or until success criteria has been met for restoration plans, and for life of the site's license for management plans. All biotic assessments and restoration plans shall be reviewed and approved by the County's Planning Department Environmental Coordinator. If more than 10 percent of a listed species located on the cultivation site would be impacted, the affected species shall be transplanted to other undisturbed areas of the site. If relocation is not possible, the license shall not be granted.

Areas proposed to be preserved as compensatory mitigation for special-status plant impacts must contain verified extant populations of the CRPR-ranked plants that would be impacted. Mitigation areas shall be managed to encourage persistence and even expansion of the preserved target species until success criteria are reached. Mitigation lands cannot be located on land that is currently held publicly for resource protection unless substantial enhancement of habitat quality would be achieved by the mitigation activities. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are impacted by project activities. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase. A Habitat Mitigation and Monitoring Plan (HMMP) shall be developed and implemented for the mitigation lands. That plan shall include, at a minimum, the following information:

- A summary of habitat impacts and the proposed mitigation.
- A description of the location and boundaries of the mitigation site and description of existing site conditions.
- A description of measures to be undertaken to enhance the mitigation site for the focal special-status species, such as through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat.
- A description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist).
- Proposed management activities to maintain high-quality habitat conditions for the focal species.
- A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, performance criteria shall include demonstration that any plant population fluctuations over the monitoring period do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management; that are not

the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management.

- Contingency measures for mitigation elements that do not meet performance criteria.

Prior to the initiation of any other protective measures, a County-approved biologist will determine, in consultation with the USFWS and CDFW (if applicable), appropriate relocation sites for any special-status species that may be observed during the pre-activity survey and that need to be relocated.

Plan Requirements and Timing: The Licensee shall hire a qualified biologist approved by the County to perform a habitat assessment, in coordination with the USFWS and CDFW as required for state or federal permits and state or federally listed species, for the proposed cannabis cultivation or manufacturing site. The habitat assessment shall be submitted to the County Planning Department for review and approval prior to issuance of any cultivation or manufacturing license. Subsequent actions identified as necessary in the habitat assessment, such as species removal or relocation, shall be initiated following any required consultation with USFWS and CDFW under state and federal regulations. All necessary requirements identified in the habitat assessment such as buffers, species monitoring, and plant species replacement, shall be indicated on final site plans.

Monitoring: The Licensee shall demonstrate to the County Licensing Office and/or Planning Department that habitat assessment requirements have been completed prior to commencement of cannabis activities.

MM BIO-1.1b. Habitat Compensation. Where avoidance of species' sensitive habitat is demonstrated to be infeasible, compensatory mitigation for permanent impacts on the California red-legged frog, California tiger salamander, and/or SCLTS, due to loss of suitable habitat, such as loss of continuous connection within an upland stream or riparian corridor for the California red-legged frog, shall be provided at a ratio of 1:1. This ratio reflects the expectation that the majority of cultivation and/or manufacturing sites would represent relatively low-quality habitat that receives little if any use by listed species due to their scarce and localized nature. Mitigation may be achieved through one or more options, subject to County approval, including:

- Onsite restoration, enhancement, or creation of suitable habitat if feasible onsite restoration opportunities exist;
- Offsite restoration or creation of suitable habitat for the impacted species;
- Financial contribution to an in-lieu fee program that results in restoration or creation of suitable habitat for the impacted species; and/or
- Purchase of mitigation credits at a USFWS- and/or CDFW-approved mitigation bank whose designated service area includes the cultivation site.

If habitat is restored, enhanced, or created onsite or offsite, either by the Licensee of a specific cultivation and/or manufacturing site or as part of a County-sponsored in-lieu fee program, a County-approved biologist will develop a HMMP for review and approval by the County. The HMMP will contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- A summary of habitat impacts and the proposed mitigation.

- A description of the location and boundaries of the mitigation site and description of existing site conditions.
- A description of measures to be undertaken to enhance the mitigation site for the target species and to protect particularly sensitive resources such as breeding ponds.
- MMs to address any temporary construction-related impacts associated with creation and/or restoration of habitat for the target species.
- A description of maintenance measures, including regular maintenance and less frequent, longer-term maintenance to ensure long-term functionality.
- A description of habitat and species monitoring measures on the mitigation site, including specific and objective performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria will include a determination by a County-approved biologist that the mitigation site provides ecological functions and values for the focal species equal to or exceeding those in the habitat that is impacted.
- A contingency plan for mitigation elements that do not meet performance or final success criteria within 5 years; this plan will include specific triggers for remediation if performance criteria are not being met and a description of the process by which remediation of problems with the mitigation site, such as the presence of non-native predators and competitors, will occur.
- Monitoring of the mitigation area shall occur for the period established in the HMMP, or until success criteria, or revised criteria based on an approved adaptive management strategy, are met. An endowment may be required in some cases.

Plan Requirements and Timing: Compensatory habitat requirements shall be noted on final site plans. If an HMMP is required, the Licensee shall hire a qualified biologist approved by the County to prepare and submit an HMMP to the County Planning Department for review and approval prior to issuance of any cultivation or manufacturing license. A 5-year site mitigation monitoring plan shall also be prepared by the biologist prior to issuance of a license, with annual reports submitted to the County's Planning Department Environmental Coordinator.

Monitoring: Licensees shall demonstrate to the County that appropriate mitigation sites have been provided. County Licensing Office and/or Planning Department compliance monitoring staff and a qualified County biologist shall inspect mitigation sites to ensure that sufficient habitat mitigation has been provided, per the requirements of the HMMP.

MM BIO-1.1c. Worker Environmental Awareness Program. Before any ground-disturbing activities begin within areas that involve established native vegetation, the Licensee shall hire a County, USFWS-, and CDFW-approved biologist to conduct a training session to be attended by all personnel associated with site construction. At a minimum, the training will include a description of the California red-legged frog, California tiger salamander, SCLTS, and/or San Francisco garter snake and their habitat, the importance of the species, the measures that are being implemented to avoid and minimize impacts as they relate to the cultivation site, and the boundaries within which the work may be accomplished.

Plan Requirements and Timing: Pre-construction training and orientation shall be held by the approved biologist prior to the start of any ground-disturbing activities. All employees

shall sign a form documenting that they have attended the Worker Environmental Awareness Program and understand the information presented to them. The form shall be submitted to the County Licensing Office and/or Planning Department for document compliance.

Monitoring: County Licensing Office and/or Planning Department compliance staff shall monitor for compliance during the Worker Environmental Awareness Program.

MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. The Licensee of a cannabis cultivation and/or manufacturing site shall employ the following Best Management Practices (BMPs) for weed control to avoid and minimize the spread of nonnative invasive plant species:

- Consistent with County General Plan policy, areas of disturbance from existing cannabis activities that have degraded habitat areas shall be restored when licensing results in the closure and/or relocation of existing cannabis operations.
- Prior to grading or soil disturbance, invasive weed infestations within areas of direct permanent or temporary disturbance will be removed, and all vegetative material will be carefully bagged and transported to the landfill for professional high-temperature composting, taking care to prevent seed dispersal during the process by covering trucks transporting such material from the site.
- Following construction, site-appropriate native seed from a local source shall be planted on all disturbed ground that will not be cultivated or landscaped and maintained.
- Plantings in landscaped areas shall consist of site-appropriate native species to the extent practicable.
- Heavy equipment used in the activity area shall be washed prior to and following work at the site, before the equipment is used in other ground-disturbing activities, to prevent spread of weed seeds.

Plan Requirements and Timing: Operational BMPs for weed control shall be included on final site plans and submitted to the Licensing Official prior to issuance of a cultivation and/or manufacturing license.

Monitoring: The Licensing Official shall monitor operations periodically and verify compliance before renewing a license.

MM BIO-1.1e. Roosting Bat Survey. Licensees who apply for a cultivation or manufacturing license that involves clearing of established native vegetation, removal of mature trees, or demolition of existing structures in an area identified by the County as potentially occupied by pallid bats, shall be required to perform a pre-construction bat survey by a County-approved biologist, prior to any removal or renovation of buildings. The biologist shall survey likely bat roosts, including closed areas such as an attic space or trees greater than 24 inches in diameter at 4.5 feet above grade. No activities that would result in disturbance of active roosts shall proceed prior to the completed surveys and recommendations. If no active roosts are found, then no further action is warranted.

If a roost is present, the biologist shall determine the species and number of individuals present. If the roost is not active at the time of the survey, the Licensee may choose to install bat exclusion devices to prevent bats from taking up occupancy of the structure prior to the onset of the proposed activity.

If an active nursery roost is located and the site cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, disturbance shall not take place during the maternity roost season (March 15 - July 31), and a disturbance-free buffer zone (determined by a County-approved biologist) shall be enforced during this period.

If disturbance of an active non-breeding bat roost cannot be avoided, the individuals may be removed and relocated by an approved biologist, between August 1 and March 14. Bats may be removed through exclusion if a removal/relocation plan is approved by CDFW. For structures, appropriate one-way doors shall be constructed and left in place for a minimum of three fair weather nights where temperatures are 50° F or greater. The one-way doors shall be installed the day prior to a night with no precipitation and forecast temperatures 50° F or greater. Removal of trees with roosts shall occur at dusk or later, to allow bats to escape during the darker hours. Tree removal shall occur in the evening when precipitation is not forecast, and temperatures are 50° F or greater.

If a tree or structure containing a pallid bat maternity roost is to be removed, the biologist shall design and determine an appropriate location for an alternative roost structure, based on the location of the original roost and habitat conditions in the vicinity. The roost structure shall be built to specifications as determined by a qualified biologist, or it may be purchased from an appropriate vendor. The structure shall be placed as close to the impacted roost site as feasible.

Plan Requirements and Timing: The Licensee shall hire a qualified biologist approved by the County to conduct roosting bat surveys prior to the start of construction. The results of the survey shall be submitted to the Licensing Official for review and approval prior to issuance of any cultivation or manufacturing license. The name and contact information for the qualified biologist shall be provided to the County Licensing Office and/or Planning Department prior to the survey. The County Licensing Office and/or Planning Department shall be notified prior to the proposed survey date.

Monitoring: County Licensing Office and/or Planning Department staff shall confirm compliance in the field prior to initiation of grading activities.

MM BIO-1.1f. Nesting Bird Survey. For sites involving clearance of existing mature vegetation during breeding season, the Licensee shall hire a County-approved biologist to conduct a pre-activity survey for nesting birds to ensure that no nests will be disturbed during construction or operation of a proposed cultivation or manufacturing site. These surveys shall be conducted no more than seven days prior to the start of initial ground-disturbing activities. During these surveys, the biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings, and bridges) in and immediately adjacent to the impact areas for nests.

If an active nest is found sufficiently close to work areas to be disturbed by construction or operation of a proposed site, the biologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 0.5-mile for bald and golden eagles, 300 feet for other raptors, 250 feet for tricolored blackbird colonies, and 100 feet for other non-raptors) to ensure that no nests of protected birds shall be disturbed during construction or operation of a proposed site. No new Program-related activities shall be performed within the buffer zone until the young have fledged or the nest has been determined to be inactive by a County-qualified ornithologist.

Plan Requirements and Timing: The Licensee shall hire a qualified County-approved biologist to conduct nesting surveys prior to the start of any construction activity. The results

of the survey shall be submitted to the County Planning Department for review and approval prior to issuance of a cultivation or manufacturing license. The name and contact information for the qualified biologist shall be provided to the County Planning Department prior to the survey. The surveys shall be conducted no sooner than seven working days prior to the start of construction. The County Planning Department shall be notified prior to the survey of the proposed survey date.

Monitoring: The County Licensing Office and/or Planning Department staff shall confirm compliance prior to initiation of grading activities.

MM BIO-1.1g. Pest Management Plan. Prior to license approval for cultivation and/or manufacturing, a Pest Management Plan shall be prepared and submitted to the County Cannabis Licensing Office. The Pest Management Plan shall describe the methods to be used for pest control, including the type, location, timing, and methods used for any rodenticide. Cannabis licensees shall be prohibited from the use of rodenticides to control pests. If rodents are a pest issue for a potential licensee, non-toxic alternatives to rodenticides shall first be attempted, such as mechanical controls like traps, gopher fencing, and weeding; biological controls such as natural pheromones; or cultural controls such as site maintenance and hygiene. Only after it can be demonstrated to the satisfaction of the Licensing Official that non-toxic pest control has been ineffective can rodenticides be considered consistent with the approved Pest Management Plan.

Plan Requirements and Timing: The Licensee shall submit the Pest Management Plan to the Licensing Office for review and approval prior to issuance of a cultivation or manufacturing license.

Monitoring: The County Licensing Office staff shall confirm compliance in the Pest Management Plan during each site inspection and/or license renewal following license approval.

MM BIO-1.1h. Water Draw Restrictions. For sites with an approved water source that has either direct or indirect connectivity to a fish-bearing stream, water shall only be drawn from that source between October 15 and April 15 for all agricultural purposes, including irrigation and County Fire Code requirements. Sufficient storage for the seasonal water demands shall be provided. To the maximum extent possible, water demand shall be met with rainwater harvest pursuant to MM-HYDRO-2.2. Rainwater Harvesting for Cannabis Cultivation prior to drawing water from a source that may impact stream flow.

Plan Requirements and Timing: The County Cannabis Licensing Office shall coordinate with the Planning Department to ensure that water sources connected with a fish-bearing stream that is used by cannabis operations is only drawn between October 15 and April 15 through review and approval of a cultivation or manufacturing license.

Monitoring: The County Licensing Office staff shall confirm compliance with requirements for cannabis water use and sources.

Implement MM HYDRO-1.1. Pesticide and Herbicide Control. To reduce potential direct impacts to special-status fish species associated with the use of pesticides and herbicides for cannabis cultivation, MM HYDRO-1.1, addressing restrictions on the type of allowable pesticides and herbicides and their appropriate labeling, placement, storage, and use to prevent release into the environment shall apply to Impact BIO-1.1.

Post-Mitigation Level of Impacts

The implementation of MM HYDRO-1.1 and MM BIO-1.1g would ensure that pesticides and herbicides are not disseminated into the environment, including surface waters, and therefore minimize adverse effects to wildlife and special-status fish species related to cannabis activities. With implementation of MMs BIO-1.1a through BIO-1.1c, as well as MM BIO-1.1g, MM BIO-1.1h, and MM HYDRO-1.1, direct impacts to special-status wildlife species, including listed fish species and nesting birds, would be reduced to a *less than significant with mitigation* level. The identification of individuals or populations and their habitat, as well as through the cautious avoidance and management of activities as required in these measures would reduce the potential for disturbance to these sensitive species. Implementation of MMs BIO-1.1a and BIO-1.1e would reduce impacts to special-status plant species to a *less than significant with mitigation* level. Further, MM BIO-1.1f would serve to reduce the direct impacts of the Program on special-status bat species and their roosting habitats to a *less than significant with mitigation* degree.

Impact BIO-1.2 – Indirect Cultivation/Manufacturing. Indirect impacts to special-status plant or wildlife species could result from new development, such as the construction of up to 228 residences, grading for building pads, vegetation management to create defensible space for required fire infrastructure, extension of utility infrastructure, or road improvements required to support operation of cannabis cultivation and manufacturing sites. The County Fire Code applicable to cannabis-related activities within structures could require significant site improvements to provide onsite fire water tanks (up to 568 tanks of up to 120,000 gallons each) with related site pad clearing and grading, installation of a 20-foot wide road with turnaround, and defensible space around a cannabis-related structure of up to 100 feet. For sites that have water rights to nearby creeks or are dependent upon wells that have direct connectivity to nearby creeks, the filling of tanks for fire water storage has the potential to draw down creek water to a level that could potentially adversely affect special-status fish, such as Coho and Steelhead.

The More Permissive Project may result in incrementally more new development than the Project. Therefore, for both Project scenarios, cultivation and manufacturing would result in indirect impacts to special-status plants and wildlife species. Proposed indirect development activities would be subject to existing County Code and licensing review to ensure compliance with County policies and regulations that protect biological resources within the County; however, due to the extensive range of the Program area, indirect development activities under the Project and More Permissive Project could result in development within areas that support habitat for special-status species but are not currently identified by the County as areas of biotic concern. Therefore, indirect impacts of the Program to special-status species are considered *potentially significant*.

Mitigation Measures

Implement MM BIO-1.1a. Special-status Species Habitat Assessment. To reduce potential indirect impacts to special-status plant and wildlife species, MM BIO-1.1a, requiring habitat assessment surveys and implementation of specific monitoring, removal, or compensatory measures, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1b. Habitat Compensation. To reduce potential indirect impacts to special-status wildlife species, MM BIO-1.1b, requiring habitat preservation, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1c. Worker Environmental Awareness Program. To reduce potential indirect impacts to special-status wildlife species, MM BIO-1.1c, requiring a County-approved biologist to conduct worker awareness training, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. To reduce potential indirect impacts to special-status plant and wildlife species, MM BIO-1.1d, requiring Licensees to implement BMPs to reduce potential spread of nonnative invasive plant species during construction and operation of sites, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1e. Roosting Bat Survey. To reduce potential indirect impacts to special-status plant and wildlife species, MM BIO-1.1e, requiring a qualified biologist to conduct surveys for special-status bats and suitable roosting sites, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1f. Nesting Bird Survey. To reduce potential indirect impacts to special-status plant and wildlife species, MM BIO-1.1f, requiring a qualified biologist to conduct surveys for nesting birds and avoidance or removal of their nests, shall apply to Impact BIO-1.2.

Implement MM BIO-1.1h. Water Draw Restrictions. To reduce impacts to water sources that have either direct or indirect connectivity to a fish-bearing stream, MM BIO-1.1h requiring water only be drawn from that source between October 15 and April 15 for all agricultural purposes, including irrigation and Fire Code requirements, shall apply to Impact BIO-1.2.

MM-HYDRO-2.3. Water Tank Supply Management. To reduce indirect impacts related to water table drawdown impacts to streamflows, MM HYDRO-2.3, addressing management of fire water tanks, shall apply to Impact BIO-1.2.

Post-Mitigation Level of Impacts

With implementation of MMs BIO-1.1a through BIO-1.1c, as well as MM BIO-1.1f through BIO-1.1h, indirect impacts to special-status wildlife species, including nesting birds, would be reduced to a *less than significant with mitigation* level. The identification of individuals or populations and their habitat, as well as through the cautious avoidance and management of activities as required in these measures would reduce the potential for disturbance to these sensitive species. Implementation of MMs BIO-1.1a and BIO-1.1d would reduce indirect impacts to special-status plant species to a *less than significant with mitigation* level. Further, MM BIO-1.1e would serve to reduce the indirect impacts of the Program on special-status bat species and their roosting habitats to a *less than significant with mitigation* level. Implementation of MM HYDRO-2.3 would reduce indirect impacts from Fire Code requirements to a *less than significant with mitigation* level.

Impact BIO-2. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on habitats or sensitive natural communities. Impacts would be less than significant with mitigation.

Impact BIO-2.1 – Direct Cultivation/Manufacturing. Eligible cultivation and manufacturing sites are located throughout eligible areas of the County and have a high potential to occur within sensitive natural communities that may serve as habitat for special-status plant or wildlife species, including: oak woodland, central dune scrub, coastal prairie, northern maritime chaparral, Monterey pine forest, northern interior cypress forest, maritime coastal range ponderosa pine forest, old-growth forest, San Andreas oak woodland, and Santa Cruz Sandhills. The County's existing policies and regulations

protect known local resources, including the Santa Cruz Sandhills, which are protected by the Sandhills Interim Habitat Conservation Plan (IPHCP). The limited extent and/or high quality of these communities make them ecologically valuable resources. Activities included under licensing and operation of cannabis cultivation and manufacturing sites could significantly alter suitable habitat conditions through encroachment, fragmentation, or direct loss of habitat by cannabis cultivation and manufacturing. While the More Permissive Project would have a larger potential impact area because it allows for incrementally more cultivation in more locations than the Project, the adverse effects anticipated under each scenario would be similar in nature. Additionally, some existing cultivation or manufacturing may be required to close or relocate through the licensing process. Consistent with the County General Plan, degraded habitat that has occurred from cannabis operations would be required to be restored as part of the licensing and enforcement process, which would have a beneficial effect on biological resources. However, potential impacts from new cannabis activities would be considered *potentially significant* for both cannabis cultivation and manufacturing under the Project and More Permissive Project.

In addition, the Program has the potential to result in impacts on riparian habitats and associated streams and water bodies. However, the Project and More Permissive Project include physical restrictions on cultivation areas to control where and how cannabis could be cultivated. Such restrictions include required setbacks from streams and water bodies. Similarly, SCCC Chapter 16.30 would prohibit associated manufacturing and development activities within specified setbacks from streams and water bodies. Therefore, neither the Project nor the More Permissive Project are expected to directly result in loss of riparian communities, streams, nor water bodies and impacts to these communities are considered *less than significant*.

Mitigation Measures

MM BIO-2.1a. Sensitive Communities Habitat Assessment. Cannabis cultivators and manufacturers who apply for a license on a site containing undeveloped habitat shall be required to have Licensing Office or Planning Department staff determine through a site visit whether a habitat assessment is necessary based on the potential for sensitive communities to occur onsite. If a habitat assessment is required, the licensee shall hire a County-approved biologist to conduct an assessment for the presence or absence of sensitive communities. The assessment shall include the proposed cultivation or manufacturing area and all areas within 300 feet of the site. If it is determined that the site does not support sensitive habitat, no further mitigation shall be required.

If the site is determined to support sensitive habitat, the protected community shall not be disturbed. The Licensee shall design, construct, and operate the proposed cultivation and/or manufacturing site to avoid sensitive communities, and to include a 300-foot buffer around old growth forest and a 50-foot buffer around all other sensitive habitats, including:

- Central Dune Scrub
- Coastal Prairie
- Northern Maritime Chaparral
- Native Monterey Pine Forest
- Northern Interior Cypress Forest
- Maritime Coast Range Ponderosa Pine Forest

- Old-Growth Forest
- San Andreas Oak Woodland
- Zayante Sandhills Soils

Plan Requirements and Timing: If sensitive communities occur onsite, the Licensee shall hire a qualified biologist approved by the County to prepare a Sensitive Communities Habitat Assessment. The biologist shall submit the assessment to the County Planning Department for review and approval prior to issuance of any cultivation or manufacturing license. All necessary buffers shall be flagged by a qualified biologist prior to initiation of construction activities.

Monitoring: The Licensing Office staff shall monitor site construction to ensure buffers for sensitive communities are flagged consistent with the listed requirements.

MM BIO-2.1b. Avoid Oak Woodland. To the extent feasible, activities on cultivation/manufacturing sites shall avoid impacts on oak woodland. Avoidance is considered to be completely avoiding any work or staging under the dripline of trees within an oak woodland area, plus a 50-foot buffer. The Licensee shall design, construct, and operate the cultivation and/or manufacturing site to completely avoid impacts on oak woodland including a 50-foot buffer established prior to initial ground disturbance. The buffer shall be established at 50 feet from the perimeter of the woodland (as measured by tree driplines for trees on the outer edge of the woodland) unless otherwise agreed upon by a qualified plant ecologist retained by the County.

Plan Requirements and Timing: The Licensee shall flag or fence the boundary of the designated avoidance buffer prior to initial ground disturbance. All buffers shall be depicted on final site plans.

Monitoring: The Licensing Office staff shall monitor site construction to ensure buffers for sensitive communities are flagged consistent with the listed requirements.

MM BIO-2.1c. Community Replacement. If complete avoidance of oak woodland is not attainable or feasible, compensation for permanent impacts on oak woodland habitat shall be provided through the replacement of oak woodland vegetation. Compensation requirements shall be based on the acreage of tree and shrub canopy removed. Oak woodland shall be avoided within 0.25 mile of a known SCLTS Pond (see Impact BIO-1.1). Any operation that impacts oak woodland vegetation shall implement the following measures:

- Unavoidable impacts on oak woodland vegetation shall be mitigated through the replacement of oak woodland vegetation on the parcel that contains the cultivation site and, if needed, outside of that parcel.
- Temporary impacts on oak woodland are defined as impacts to understory herbaceous vegetation within the oak woodland habitat that occurs outside the dripline of any tree or shrub. Temporary impacts shall be mitigated by reseeding the temporary impact area with a local or site-based native seed source and native seed mixture that is similar in species and cover to that present in the impacted oak woodland.
- Permanent impacts on oak woodland shall be mitigated at a replacement ratio based on the diameter breast height (DBH) of the trees being removed. As trees and shrubs in oak woodlands may be widely spaced or more closely spaced, and exact composition may differ depending on microhabitat conditions that vary across the County, the mitigation plantings

shall either be composed of the same species and in the same proportions as those removed, or shall reflect the composition and density of a reference site near the cultivation site. In addition, the mitigation planting areas shall be seeded with a native seed mixture that is similar in species and cover to that present in the impacted oak woodland habitat. All plant materials shall be replaced using a local native plant source. The mitigation plantings shall be preferentially installed on the parcel that contains the cultivation/manufacturing site and can be situated in the area temporarily impacted by the site. When the planting site is not itself a sensitive habitat the oak woodland mitigation plantings may convert a non-sensitive community to oak woodland over time, if that area is determined to be suitable by a qualified restoration ecologist. The cultivator/manufacturer shall develop an Oak Woodland HMMP for replacement of trees and shrubs. If the replacement of oak woodland vegetation cannot be implemented within the cultivation site, or there is not a sufficient area to mitigate oak woodland tree and shrub impacts, acreage for oak woodland planting shall be acquired within the vicinity of the cultivation/manufacturing site. The Oak Woodland HMMP shall be prepared by a County-approved and qualified restoration ecologist and shall provide, at a minimum, the following items:

- Habitat impacts summary and proposed habitat mitigation actions.
- Goals of the restoration to achieve no net loss.
- The location of the mitigation sites and existing site conditions.
- Mitigation design including:
 - Proposed site construction schedule.
 - Description of existing and proposed soils, hydrology, geomorphology, and geotechnical stability.
 - Site preparation and grading plan.
 - Invasive species eradication plan, if applicable.
 - Soil amendments and other site preparation.
 - Planting plan (plant procurement/propagation/installation).
 - Maintenance plan.
 - Monitoring measures, performance and success criteria, which, at a minimum shall include at least 80 percent planted oak and shrub survivorship at 5 years post-planting.
 - Monitoring methods, duration, and schedule.
 - Contingency measures and remedial actions.
 - Reporting measures.

This mitigation will be deemed complete and the cultivator will be released from further responsibilities when the final success criteria have been met as determined by the County.

Plan Requirements and Timing: A Restoration Plan, including proposed planting areas and proposed plant pallets, including any necessary Oak Woodland HMMP, shall be prepared by a County-approved biologist and reviewed and approved by County Planning Department permit compliance staff prior to issuance of a license.

Monitoring: Licensing staff shall verify compliance with the Restoration Plan and/or Oak Woodland HMMP in the field before and during construction or development of the site.

Post-Mitigation Level of Impacts

With implementation of MMs BIO-2a through BIO-2c, direct impacts from licensing and operation of cannabis cultivation and/or manufacturing sites on sensitive natural communities or habitats would be reduced to a *less than significant with mitigation* level for both the Project and the More Permissive Project.

Impact BIO-2.2 – Indirect Cultivation/Manufacturing. Indirect impacts of the Program on habitat or sensitive natural communities would be similar to those described under Impact BIO-2.1, above. Construction of roads, site improvements, and supporting structures indirectly related to cannabis cultivation and manufacturing could potentially be sited on or near sensitive habitat. The County Fire Code for cannabis-related activities within structures would require significant site improvements to provide onsite fire water tanks (up to 568 tanks of up to 120,000 gallons each) with related site pad clearing and grading, installation of a 20-foot wide road with turnaround, and defensible space around a cannabis-related structure of up to 100 feet. For sites located in the upper watersheds that install new wells for their water supply, combined with the water tank requirement, stream flow could be impacted due to drawdown, which could adversely affect aquatic habitat or riparian sensitive communities.

Proposed indirect development activities would be subject to existing County Code and licensing review to ensure compliance with County policies and regulations that protect biological resources. However, given the nature and extensive range of the Program area, indirect development activities have the potential to occur within sensitive habitat or natural communities not currently identified by the County as areas of biotic concern. Therefore, indirect impacts of the Program would be considered *potentially significant*.

Mitigation Measures

Implement MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. To reduce indirect impacts to the loss or alteration of sensitive natural communities or suitable habitats for special-status plants and wildlife, MM BIO-1.1d, addressing the control of nonnative invasive plant species, shall apply.

Implement MM BIO-2.1a. Sensitive Communities Habitat Assessment. To reduce indirect impacts to the loss or alteration of sensitive natural communities or suitable habitats for special-status plants and wildlife, MM BIO-2.1a, requiring the identification and protection of sensitive habitat within the area of disturbance, shall apply.

Implement MM BIO-2.1b. Avoid Oak Woodland. To reduce indirect impacts to the loss or alteration of sensitive natural communities or suitable habitats for special-status plants and wildlife, MM BIO-2.1b, requiring the avoidance of sensitive oak woodland habitat, shall apply.

Implement MM BIO-2.1c. Community Replacement. To reduce indirect impacts to the loss or alteration of sensitive natural communities or suitable habitats for special-status plants and wildlife, MM BIO-2.1c, addressing compensatory requirements for the replacement of impacted vegetation or preservation of suitable offsite habitat shall apply.

Implement MM BIO-1.1h. Water Draw Restrictions. To reduce impacts to water sources that have either direct or indirect connectivity to a fish-bearing stream, MM BIO-1.1h requiring water only be drawn from that source between October 15 and April 15 for all agricultural purposes, including irrigation and Fire Code requirements, shall apply to Impact BIO-2.2.

MM-HYDRO-2.3. Water Tank Supply Management. To reduce indirect impacts related to water table drawdown impacts to streamflows, MM HYDRO-2.3, addressing management of fire water tanks, shall apply to Impact BIO-2.2.

Post-Mitigation Level of Impacts

With implementation of MMs BIO-1.1d, and BIO-2.1a through BIO-2.1c, indirect impacts from construction and operation of supporting development for cannabis cultivation and/or manufacturing sites on sensitive biological communities or habitats would be reduced to a less than significant with mitigation level for both the Project and the More Permissive Project. Implementation of MM HYDRO-2.2, Rainwater Harvesting, MM-HYDRO-2.3. Water Tank Supply Management, and MM BIO-1.1h. Water Draw Restrictions, would reduce indirect impacts from County Fire Code requirements to a less than significant with mitigation level.

Impact BIO-3. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on the movement of any native resident or migratory species. Impacts would be less than significant with mitigation.

Impact BIO-3.1 – Direct Cultivation/Manufacturing. The Project and More Permissive Project both include physical restrictions on cultivation and/or manufacturing sites to control where and how cannabis can be cultivated or manufactured. Such restrictions include required setbacks from streams and water bodies. The Program is not expected to result in substantial impacts on riparian or stream environmental corridors, which allow movement throughout the landscape by both aquatic and terrestrial species. Because impacts would be scattered throughout the Program’s area of eligibility, and the maximum allowed cannabis canopy size on an individual parcel in any zoning district is 22,000 sf for the Project and 44,000 sf for the More Permissive Project, the Project and More Permissive Project are not expected to result in a substantial impact on wildlife movement through upland communities. However, the Program would require outdoor cannabis cultivators to secure and enclose cultivation sites with a minimum 6-foot high, opaque fence. Installation of such barriers would have the potential to adversely affect resident or migratory species movement between foraging, dispersal, or breeding habitats, particularly within more biologically diverse regions of the County. Therefore, indirect impacts are considered *potentially significant*.

Mitigation Measures

Implement MM AV-1.1. Fencing Requirements. To reduce indirect impacts to the movement of native resident or migratory species from installation of security fencing, MM AV-1.1, addressing requirements for cannabis cultivation site security fencing, shall apply to Impact BIO-3.2.

MM BIO-3.1. Wildlife Fencing. If fencing is required by the Licensing Official for outdoor cultivation sites, cannabis cultivation Licensees shall prepare a Wildlife Fencing Plan for all cannabis cultivation sites proposed. The Wildlife Fencing Plan shall identify the type, material, length, and design of proposed fencing, and shall consist of non-disruptive, wildlife-friendly fencing such as post and rail fencing, wire fencing, and high-tensile electric fencing, to allow

passage by smaller animals and prevent movement in and out of cultivation sites by larger mammals such as deer.

Plan Requirements and Timing: The Licensee shall submit the Wildlife Fencing Plan to the County for review and approval prior to issuance of any cannabis cultivation license.

Monitoring: A County-approved biologist shall review the plan and confirm the adequacy of design for passage of smaller wildlife and safe prevention of entry by larger mammals such as deer. The Licensee shall demonstrate to County compliance monitoring staff that all perimeter fencing requirements are in place as required.

Post-Mitigation Level of Impacts

With implementation of MMs AV-1.1 and BIO-3.1, indirect impacts to the movement of native resident or migratory species due to cannabis cultivation fencing requirements under the Program would be reduced to *less than significant with mitigation*.

Impact BIO-3.2 – Indirect Cultivation/Manufacturing. Commercial cannabis cultivation and manufacturing may result in indirect impacts to the movement of any native or migratory species through the construction of residential units and ancillary development necessary to support cultivation or manufacturing under the Program. However, supporting development would be subject to existing plans and policies designed to protect and ensure the movement of native or migratory species throughout the County, and preserve wildlife corridors. Therefore, this impact is considered *less than significant*.

Impact BIO-4: Commercial cannabis cultivation and cannabis product manufacturing under the Program may conflict with adopted local plans, policies, or ordinances oriented towards the protection and conservation of biological resources. Impacts would be less than significant with mitigation.

Impact BIO-4.1 – Direct Cultivation/Manufacturing. SCCC Chapter 16.34, *Significant Trees Protection*, applies in the Coastal Zone and sensitive habitats in the Program area and requires specific findings to be made prior to issuance of a permit for the removal of significant trees in the Coastal Zone. To comply with this ordinance under the Program, the Licensee would apply for a tree removal permit and comply with the required mitigation conditions if removal of any significant tree is necessary and the findings can be made. The Licensee would be required to mitigate for loss of trees by replacing them with trees acceptable to the County Planning and Development Department. The replacement trees would be planted onsite to the extent feasible. If replacement onsite is not feasible, the Licensee would be responsible for identifying a location where trees could be planted, monitored and maintained. The More Permissive Project would involve licensing of more sites than the Project, which would increase the potential for impacts on trees and the maximum potential acreage of impacts on habitat and communities; however, compliance with SCCC Chapter 16.34, *Significant Trees Protection*, would ensure that impacts in the Coastal Zone would be *less than significant*.

In addition to SCCC Chapter 16.34, 19 adopted HCPs issued under the federal Endangered Species Act to private entities undertaking projects that might result in take of an endangered or threatened species are active in the County of Santa Cruz (USFWS 2017), including the IPHCP for the Sandhills Habitat. Per County Ordinance 16.32, Sensitive Habitat Protection, development activity within an area of biotic concern (including areas that provide habitat for rare or endangered species which meet the definition of Section 15380 of the CEQA guidelines and areas which provide habitat for rare,

endangered or threatened species as designated by the State Fish and Game Commission, USFWS, or CNPS) cannot begin until a biotic approval has been issued by the County. The County would not issue a license for cannabis cultivation on a site with an approved HCP until a biological assessment is performed by an applicant-funded and County-approved biologist. The County would typically not allow activities such as cannabis cultivation on a site with an approved HCP if such cultivation would conflict with the HCP. SCCC Chapter 16.32 also establishes protection for known habitat area for the SCLTS with the S-P zone district. However, SCCC Chapter 16.32 does not explicitly state that the required biological assessment would prohibit issuance of a license for any activities that would conflict with the approved HCP or the S-P zone. Therefore, the Project and More Permissive Project could potentially result in a conflict with an approved HCP or County habitat protection measures, and impacts are considered *potentially significant*.

Additionally, the General Plan contains conservation measures that would protect biological resources, as well as measures to avoid, minimize, and mitigate impacts on such resources. County protective measures include regions that impact Zayante Sandhill habitats, SCLTS, and California tiger salamander; cannabis-related development would be prohibited in these 2 habitats under current policy. Therefore, Program conflicts with adopted local plans, policies, or ordinances oriented towards the protection and conservation of biological resources are considered *less than significant* for both the Project and More Permissive Project scenarios.

Mitigation Measures

MM BIO-4.1. Avoidance of Conflict with an Approved HCP. During the County's review of license applications for cannabis cultivation and manufacturing, the County shall review whether a cultivation or manufacturing site is located within an area subject to an adopted HCP during its biological resources assessment process. The County shall not issue a license for any site on which the proposed activity would conflict with an adopted HCP.

Plan Requirements and Timing: The Cannabis Licensing Office shall screen all Licensees for site locations within an approved HCP. If the proposed site is located within an approved HCP, the County Planning Department shall review for consistency prior to license approval, and may recommend denial of the license due to biotic impacts.

Monitoring: The County Planning Department and Cannabis Licensing Office monitoring staff shall ensure compliance.

MM BIO-4.2. No Cannabis Activities allowed within Sandhills Habitat or Salamander Protection Zone. During the County's review of license applications for cannabis cultivation and manufacturing, the County shall review whether a cultivation or manufacturing site is located within the Sandhills habitat or in oak woodland within ¼ mile of a known or suspected salamander breeding pond during its biological resources assessment process. The County shall not issue a license for any cannabis activity proposed within the Sandhills or SCLTS habitats, with the exception of those indoor activities that do not require any soil disturbance.

Plan Requirements and Timing: The Cannabis Licensing Office shall screen all Licensees for location within Sandhills or SCLTS habitats. If the proposed site is located within the Sandhills or SCLTS habitats and requires any amount of ground disturbance, the Cannabis Licensing Office shall deny the license application following review and concurrence by County Planning Department staff.

Monitoring: The County Planning Department and Cannabis Licensing Office monitoring staff shall ensure compliance.

Post-Mitigation Level of Impacts

With implementation of MMs BIO-4.1 and BIO-4.2, the County would ensure no cannabis cultivation or manufacturing site licensed under the Program would conflict with adopted HCPs, SCCC Chapter 16.32 addressing S-P zoning, and Sandhills habitat, and direct impacts would be reduced to a *less than significant with mitigation* degree.

Impact BIO-4.2 – Indirect Cultivation/Manufacturing. Indirect impacts of cannabis cultivation and manufacturing would occur through the construction or expansion of buildings such as greenhouses, commercial buildings, and residential structures, or related infrastructure such as required water tanks and fire prevention improvements to support cultivation and manufacturing operations. Site preparation activities for related development and improvements could conflict with local plans or policies oriented towards the protection of local biological resources through the clearing/grading of land or removal of habitat identified under a HCP, or through the cutting or removal of trees protected under SCCC Chapter 16.34, *Significant Trees Protection*. However, such activities would be subject to the same County policies and regulations as described under Impact BIO-4.1 above. No impacts would result from conflicts with SCCC Chapter 16.34 due to existing requirements. Where the siting of construction and operation of new or expanded development would occur within areas overlapping an adopted HCP, indirect impacts would be similar to those described under Impact BIO-4.1, and are considered *potentially significant* for both the Project and the More Permissive Project.

Mitigation Measures

Implement MM BIO-4.1. Avoidance of Conflict with an Approved HCP. To reduce potential indirect impacts from the allowance of residential structures or ancillary development on a site with an approved HCP, MM BIO-4.1, requiring the County to review and approve cannabis cultivation and manufacturing licenses only on sites that would not conflict with an approved HCP, shall apply to Impact BIO-4.2.

Implement MM BIO-4.2. No Cannabis Activities allowed within Sandhills or SCLTS Habitat. To reduce potential indirect impacts from the allowance of residential structures or ancillary development on a site with Santa Cruz County Sandhills Habitat or SCLTS Habitat, MM BIO-4.2, requiring the County to deny cannabis cultivation and manufacturing licenses on sites that would impact these sensitive areas, shall apply to Impact BIO-4.2.

Post Mitigation Level of Impacts

With implementation of MMs BIO-4.1 and BIO-4.2, the County would ensure that residential development and ancillary improvements required to support licensing of commercial cannabis cultivation and manufacturing sites do not adversely affect Santa Cruz County Sandhills Habitat or SCLTS habitat, and residual indirect impacts would be *less than significant with mitigation* for both the Project and the More Permissive Project scenarios.

3.4.6.2 Summary of Project Impacts and Proposed Mitigation Measures

Table 3.4-2 below provides a summary of the Program impacts related to biological resources and proposed MMs.

Table 3.4-2 Summary of Biological Resources Impacts

Biological Resources Impacts	Level of Significance	Mitigation Measures	Post-Mitigation Level of Significance	
			Project	More Permissive Project
Impacts from Commercial Cannabis Cultivation and Cannabis Product Manufacturing				
Impact BIO-1. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on unique, rare, threatened, or endangered plant or wildlife species. Impacts would be less than significant with mitigation.				
Direct	Potentially Significant	MM HYDRO-1.1. Pesticide and Herbicide Control. MM BIO-1.1a. Special-status Species Habitat Assessment. MM BIO-1.1b. Habitat Compensation. MM BIO-1.1c. Worker Environmental Awareness Program. MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. MM BIO-1.1e. Roosting Bat Survey. MM BIO-1.1f. Nesting Bird Survey. MM BIO-1.1g. Pest Management Plan. MM BIO-1.1h. Water Draw Restrictions	Less than significant with Mitigation	Less than significant with Mitigation
Indirect	Potentially Significant	MM BIO-1.1a. Special-status Species Habitat Assessment. MM BIO-1.1b. Habitat Compensation. MM BIO-1.1c. Worker Environmental Awareness Program. MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. MM BIO-1.1e. Roosting Bat Survey. MM BIO-1.1f. Nesting Bird Survey. MM BIO-1.1h. Water Draw Restrictions MM-HYDRO-2.3. Water Tank Supply Management	Less than significant with Mitigation	Less than significant with Mitigation

Table 3.4-2 Summary of Biological Resources Impacts (Continued)

Biological Resources Impacts	Level of Significance	Mitigation Measures	Post-Mitigation Level of Significance	
			Project	More Permissive Project
Impact BIO-2. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on habitats or sensitive natural communities. Impacts would be less than significant with mitigation.				
Direct	Potentially Significant	MM BIO-2.1a. Sensitive Communities Habitat Assessment. MM BIO-2.1b. Avoid Oak Woodland. MM BIO-2.1c. Community Replacement.	Less than significant with Mitigation	Less than significant with Mitigation
Indirect	Potentially Significant	MM BIO-1.1d. Prevention of Spread of Nonnative Invasive Plants. MM BIO-2.1a. Sensitive Communities Habitat Assessment. MM BIO-2.1b. Avoid Oak Woodland. MM BIO-2.1c. Community Replacement. MM BIO-1.1h. Water Draw Restrictions MM-HYDRO-2.3. Water Tank Supply Management	Less than significant with Mitigation	Less than significant with Mitigation
Impact BIO-3. Commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on the movement of any native resident or migratory species. Impacts would be less than significant with mitigation.				
Direct	Less than Significant	MM AV-1.1. Fencing Requirements. MM BIO-3.1. Wildlife Fencing MM BIO-1.1h. Water Draw Restrictions	Less than Significant with Mitigation	Less than Significant with Mitigation
Indirect	Potentially Significant	None required.	Less than Significant	Less than Significant
Impact BIO-4: Commercial cannabis cultivation and cannabis product manufacturing under the Program may conflict with adopted local plans, policies, or ordinances oriented towards the protection and conservation of biological resources. Impacts would be less than significant with mitigation.				
Direct	Potentially Significant	MM BIO-4.1. Avoidance of Conflict with an Approved HCP. MM BIO-4.2. No Cannabis Activities allowed within Sandhills or Salamander Habitat.	Less than significant with Mitigation	Less than significant with Mitigation
Indirect	Potentially Significant	MM BIO-4.1. Avoidance of Conflict with an Approved HCP. MM BIO-4.2. No Cannabis Activities allowed within Sandhills or Salamander Habitat.	Less than significant with Mitigation	Less than significant with Mitigation

3.4.6.3 Secondary Impacts

Impact BIO-5. Unregulated commercial cannabis cultivation and cannabis product manufacturing under the Program could have adverse effects on unique, rare, threatened, or endangered plant or wildlife species; habitats or sensitive natural communities; the movement of any native resident or migratory species; or may conflict with adopted local plans, policies, or ordinances oriented towards the protection and conservation of biological resources. Impacts would be significant and unavoidable.

Impact BIO-5.1 – Secondary Cultivation/Manufacturing. Project-induced additional or expanded unregulated and unlicensed cannabis cultivation and manufacturing could occur at levels beyond the baseline, by both existing and new cannabis activities. Operation of unlicensed sites and facilities that have been known to engage in unregulated and often illegal activities throughout the County with the potential to result in substantially adverse effects on sensitive plant and wildlife species. The impacts are caused by clear-cutting of forests, destruction of habitat, introduction of hazardous materials, introduction of barriers such as security fencing to movements of native resident or migratory species, unpermitted stream diversions, and other damaging activities required to support unregulated cannabis cultivation or manufacturing operations. However, the exact extent of these activities and the magnitude that would occur after implementation of the Program is highly speculative and unknown. Therefore, due to the ambiguous and unquantifiable nature of this impact, potential secondary impacts of the Project and More Permissive Project on biological resources are considered *potentially significant*.

Secondary impacts of the Program on natural communities and sensitive biological habitats would be similar to those discussed under Impact BIO-1.3, and so impacts are considered *potentially significant*.

Secondary impacts of the Program on natural corridors and the movement of native resident or migratory species could result from additional new or expanded unregulated cannabis cultivation and manufacturing sites engaging in adverse activities ranging from the unpermitted development in remote areas of the County that provide passage for native or migratory species, installation of fencing or security features which could prevent the passage of wildlife, or illegal diversion of streams which are crucial to the life cycle and movement of aquatic or riparian species. Due to the potential for operation of unlicensed and unpermitted cultivation and manufacturing sites, secondary impacts on the movement of native resident or migratory species are considered *potentially significant*.

Secondary impacts of the Program resulting from conflicts with adopted local plans or policies designed to protect, preserve, or conserve biological resources, such as the IPHCP for the Sandhills, would be similar to those discussed under Impact BIO-1.3 above, and impacts are considered *potentially significant*.

Mitigation Measures

Implement MM AT-1.3a. Sustained Enforcement Program. To reduce secondary impacts to special-status species, sensitive natural communities or habitats, the movement of native resident or migratory species from installation of security fencing, and conflicts with adopted HCPs, associated with unregulated cannabis cultivation/manufacturing and related development activities, MM AT-1.3a, addressing County implementation of the Unlicensed Cannabis Cultivation and Manufacturing Enforcement and Compliance Program, shall apply to Impact BIO-5.

Implement MM AT-1.3b. Annual Survey and Monitoring Report. To reduce secondary impacts to special-status species, sensitive natural communities or habitats, the movement of native resident or migratory species from installation of security fencing, and conflicts with adopted HCPs, associated with unregulated cannabis cultivation/manufacturing and related development activities, MM AT-1.3b, addressing County criteria for an **Annual Survey and Monitoring Report** of licensed activities as well as illegal activities, including recommendations regarding enforcement staffing and resources, shall apply to Impact BIO-5.

Post-Mitigation Level of Impacts

While implementation of MMs AT-1.3a and AT-1.3b would reduce the effect of secondary impacts to the maximum extent feasible by the County, impacts would remain significant. With implementation of these measures, the County would ensure that illegal cannabis cultivation and manufacturing operations in all zone districts is minimized through enforcement, site monitoring, and annual surveys which are conducted in a reliable manner, addressing operations on a case-by-case basis, thereby reducing the potential for continued unlicensed cannabis cultivation operations. However, due to the high likelihood for continued operation of unlicensed manufacturing regardless of increased enforcement throughout the County, secondary impacts of the Program are considered *significant and unavoidable*.

3.4.6.4 Cumulative Impacts

As described in Section 3.0, cumulative development and growth in population and employment is projected to be gradual toward 2040 with some change in agricultural uses and crop types and a changing regulatory landscape for commercial cannabis activities both regionally and statewide. Concurrent development of residential, commercial, and agricultural land uses with commercial cannabis cultivation and manufacturing could potentially result in adverse impacts to special-status species, sensitive communities, and other sensitive biological resources.

The cumulative impact on biological resources resulting from the Program in combination with other projects in the Program area would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning policies, MMs, and permit requirements for each project, including compensatory mitigation and proactive conservation measures. Cumulative impacts to biological resources would be *less than significant*.

The General Plan contains conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on such resources. In addition, some projects in the region that impact Zayante Sandhill habitats, similar to those impacted by the Program, would be covered activities under the IPHCP for the Sandhills. This plan ensures mitigation of impacts on this sensitive habitat and the special-status species it supports. For development that is approvable, the plan requires purchase of credits at the Zayante Sandhills Conservation Bank, a high quality Sandhills Preserve that will be protected and managed in perpetuity to enhance endangered species populations and their habitats. Therefore, cumulative impacts of the Program on local habitat conservation plans are considered *less than significant*.

Further, on a cumulative basis, the Program would bring a substantial number of existing cultivation sites into compliance with a variety of biological resource protection laws and regulations. Although individual sites approved through the permit process may have the potential to significantly impact

biological resources, these impacts would be minimized through the implementation of MMs as described above. Minimum parcel sizes, maximum cultivation areas, requirements to implement setbacks from streams and sensitive habitats, requirements to demonstrate adequate water supply, and other restrictions would, over time, result in cultivation sites being located in less sensitive areas and operated in a manner that would have fewer impacts than would otherwise occur. Therefore, provided the Program successfully incorporates the MMs described in this EIR, the direct and indirect effects of the Program will not result in a cumulatively considerable contribution to any significant cumulative effects on biological resources.

In addition to the Program's potentially adverse effects on wildlife from rodenticide application, the wide-scale use of rodenticides throughout the County by residents and businesses has resulted in the documentation of inadvertent poisoning or killing of non-target species, including special-status wildlife. The use and application of rodenticides to eradicate nuisance or pest species continues to result in adverse effects on wildlife and their habitats across all regions of the County, as described in Section 3.4.2, *Environmental Setting*, above. Cannabis cultivation is disproportionately located in mountainous areas and in locations interfacing directly with wildlands inhabited by wildlife that are known to accidentally ingest rodenticides or prey that has ingested rodenticides, leading to illness and death of wildlife beyond the target species of the rodenticide. While the potential application of rodenticides under the Program would be less than significant with mitigation that requires a near-complete ban on rodenticides associated with cannabis operations (with waivers granted in very limited cases) and preparation of a Pest Management Plan for each licensee, the application of rodenticides by noncompliant cannabis cultivators, residents, commercial developments, farmers, and many other users within the County would still continue to have a substantial adverse effect on local wildlife. Due to the evidence of adverse effects on wildlife and current use of rodenticides within the County, implementation of the Program in addition to continued application of rodenticides by users within the County will result in a cumulatively considerable impact to native wildlife. Implementation of a mitigation to address reduction of cannabis related use of rodenticides may reduce cumulative *potentially significant* impacts.

Recommended Mitigation Measures

Recommended MM BIO-5.1. Rodenticide Use Reduction and Control Program (RURCP). To address cumulatively considerable impacts of county-wide application of rodenticides, the County Licensing Official, Environmental & Resource Protection Division, shall develop a Countywide RURCP applicable to cannabis cultivation to reduce secondary poisoning of non-target wildlife. The County shall coordinate with local and state agencies, including CDFW, California DPR, and the County Agricultural Commissioner to develop and implement provisions of the program. To address the management of rodenticides throughout the County, the RURCP should consider, but not be limited to, the following aspects and topics for inclusion into the program:

- Toxicity studies to identify the extent and effects of rodenticides in all regions of the County.
- Identification of areas of the County subject to increased threat of secondary poisoning from rodenticide application.
- Identification and promotion of alternative rodent management measures, including biological controls such as owl boxes and natural pheromones; mechanical controls such as physical traps, gopher fencing, and weeding; or cultural controls.

- Opportunities for public outreach or education about effects of rodenticide use and safe pest management practices.

Plan Requirements and Timing: Within two years of adoption of the Licensing Program, the County Licensing Office shall present to the County Board of Supervisors a recommended RURCP, with information about cost, effectiveness and concerns.

Monitoring: The County Licensing Office shall coordinate with the various agencies and departments to ensure the production of the RURCP in conformance with this measure.

Post-Mitigation Level of Impacts

While many users and applicators within the County currently apply rodenticides in conformance with existing state and federal regulations, the toxicity of rodenticides and evidence of secondary poisoning of non-target wildlife remains a significant issue within the County resulting from the common application of rodenticides by many user groups in areas of the County that are rural and serve as habitats for many wildlife species. Implementation of MM BIO-5.1 would require the County to develop and implement a RURCP which identifies and addresses impacts from the use and application of commercially and publicly available rodenticides. Although not identified as an impact of the Program, Countywide rodenticide application from many existing and proposed residential, business and agricultural users would be managed and regulated through implementation of MM BIO-5.1, such that impacts resulting from the secondary poisoning of non-target species would be cumulatively reduced to a *less than significant with mitigation* level. However, as a recommended MM, if the County does not implement MM BIO-5.1, cumulative impacts of rodenticide use Countywide would be *significant and unavoidable*.