State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
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Governor's Office of Planning & Research

August 12, 2020

Aug 12 2020

STATE CLEARINGHOUSE

Eric Hughes
County of San Luis Obispo
Department of Planning and Building
976 Osos Street, Room 300
San Luis Obispo, California 93408
ehughes@co.slo.ca.us

Subject: Beanway Conditional Use Permit (DRC2019-00129)

Mitigated Negative Declaration (MND)

Brian Beanway Conditional Use Permit ED19-240 (Project)

State Clearinghouse No. 2020030353

Dear Mr. Hughes:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from San Luis Obispo County for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide recommendations regarding the activities proposed at the Project area that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). For example, to the extent implementation of the Project as proposed may result in take as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorized as provided by the Fish and Game Code will be required.

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (i.e., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

Water Pollution: Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures this Project could result in pollution of Waters of the State from storm water runoff or construction-related erosion. Potential impacts to the wildlife resources that utilize watercourses in the Project area include the following: increased sediment input from road or structure runoff; toxic runoff associated with Project-related activities and implementation; and/or impairment of wildlife movement. The Regional Water Quality Control Board and United States Army Corps of Engineers also have jurisdiction regarding discharge and pollution to Waters of the State.

Bird Protection: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Fully Protected Species: CDFW has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and CDFW cannot authorize their incidental take.

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T as specified in the CEQA Guidelines (Cal. Code Regs., tit. 14, Chapter 3, § 15380), CDFW recommends it be fully considered in the environmental analysis for this Project.

Notification of Lake and Streambed Alteration: CDFW has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code section 1600 et seq. Section 1602 subdivision (a) of the Fish and Game Code requires an entity to notify CDFW before engaging in activities that would substantially change or use any material from the bed, channel, or bank of any stream or substantially divert or obstruct the natural flow of a stream.

Additionally, Business and Professions Code 26060.1 (b)(3) includes a requirement that California Department of Food and Agriculture (CDFA) cannabis cultivation licensees demonstrate compliance with Fish and Game Code section 1602 through written verification from CDFW. CDFW recommends submission of a Lake and Streambed Alteration Notification to CDFW for the proposed Project prior to initiation of any cultivation activities. Additional information can be found here: https://www.wildlife.ca.gov/Conservation/Cannabis/Permitting.

PROJECT DESCRIPTION SUMMARY

Proponent: Brian Beanway, Pozo Management Group

Objective: The Project proponent is seeking a Conditional Use Permit to establish 2.98 acres of outdoor cannabis cultivation within hoop houses; 22,000 square-feet of indoor cannabis cultivation canopy within 25,200 square feet of greenhouses; 47,580 square-feet of cannabis nursery within three new greenhouses; 6,000 square-feet of ancillary cannabis processing and manufacturing within a new building; 1,280 square-feet of storage area within four seatrain containers; and ancillary cannabis transport. A modification from the fencing standards is requested to allow deer fencing instead of solid and durable fencing. The Project will result in the disturbance of 6.28 acres on an approximately 59-acre site.

The Project also includes two new water storage tanks of 70,000 gallons and 18,000 gallons, a composting area, waste/recycling area, a new water well, and parking for 34 vehicles including one Americans with Disabilities Act accessible space. The Project will require 6,795 cubic yards of cut and fill and would remove a total of nine oak trees ranging in diameter at breast height (DBH) of 12 to 49 inches. The Project will be completed in two phases.

Location: The Project will take place at 880 Parkhill Road in Santa Margarita, San Luis Obispo County, California; Assessor's Parcel Number 071-201-042.

Timeframe: Unspecified.

RECOMMENDATIONS

CDFW offers the following recommendations to assist San Luis Obispo County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

I. Environmental Setting and Related Impact

Would the Project 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 CDFW or the United States Fish and Wildlife Service (USFWS)?

Review of the California Natural Diversity Database (CNDDB) reveals records for several special-status species within the vicinity of the Project area including but not limited to the State candidate for listing Crotch bumble bee (*Bombus crotchii*), and State species of special concern American badger (*Taxidea taxus*), western red bat (*Lasiurus blossevillii*), and northern California legless lizard (*Anniella pulchra*) (CDFW, 2019). The MND states that the California Rare Plant Ranking 4.2 paniculate tarplant (*Deinandra paniculate*) and California spineflower (*Mucronea californica*) are present on the property, and that the fully protected white-tailed kite (*Elanus leucurus*) has low to moderate potential to nest on the site. White-tailed kites were not observed during the 2019 biological surveys. The MND states that the following State species of special concern have the potential to be present on the property: pallid bat (*Antrozous pallidus*), American badger, California glossy snake (*Arizona elegans occidentalis*), and northern California legless lizard.

Review of aerial imagery indicates that the Project area consists of existing structures, oak woodland, annual grassland, camise chaparral, active agriculture, and an ephemeral stream to the east. The Project area contains habitats with the potential to support special-status species and the Project has the potential to impact biological resources. An analysis of potential impacts and recommended mitigation measures summarized by species follows below.

COMMENT 1: Crotch Bumble Bee (CBB)

Issue: On June 28, 2019, the Fish and Game Commission published findings of its decision to advance CBB to candidacy as endangered. Pursuant to Fish and Game Code section 2074.6, CDFW has initiated a status review report to inform the Commission's decision on whether listing of CBB, pursuant to CESA, is warranted. During the candidacy period, consistent with CEQA Guidelines, section 15380, the

status of the CBB as an endangered candidate species under CESA (Fish & G. Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA. It is unlawful to import into California, export out of California or take, possess, purchase, or sell within California, CBB and any part or product thereof, or attempt any of those acts, except as authorized pursuant to CESA. Under Fish and Game Code section 86, take means to hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill. Consequently, take of CBB during the status review period is prohibited unless authorization pursuant to CESA is obtained.

CBB have been documented to occur within the vicinity of the Project area (CDFW, 2019). Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows, but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al., 2014; Hatfield et al., 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson, 2010), or under leaf litter or other debris (Williams et al., 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.

Specific impact: Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality in violation of Fish and Game Code.

Evidence impact is potentially significant: CBB was once common throughout most of the central and southern California; however, it now appears to be absent from most of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al., 2014). Analyses by the Xerces Society et al. (2018) suggest there have been sharp declines in relative abundance by 98% and in persistence by 80% over the last ten years.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CBB associated with the Project, CDFW recommends including the following mitigation measure in the MND.

Recommended Mitigation Measure 1: CBB Take Avoidance

CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If

the Project area includes brush piles, unmowed/overgrown areas, dead trees, hollow logs, CDFW similarly recommends avoiding those areas by a minimum of 50 feet. If ground-disturbing activities will occur during the overwintering period (i.e., October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. In addition, any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

COMMENT 2: Special Status Bat Species

Issue: Mitigation Measure BR-5 describes that prior to removal of any trees, including dead trees, a survey will be conducted by a qualified biologist to determine if any of the trees proposed for removal harbor sensitive bat species or maternal bat colonies. If a non-maternal roost is found, the qualified biologist, with prior approval from CDFW, will install one-way valves or other appropriate passive relocation method. For each occupied roost removed, one bat box or crevice structure will be installed in similar habitat and should have similar cavity or crevices properties to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. Maternal bat colonies may not be disturbed during breeding season and will be avoided by 50 feet while active.

Mitigation Measure BR-6 describes surveying existing structures proposed for removal or Project use prior to dismantling or using to determine if roosting bats are present. If a colony of bats is found roosting in any structure, further surveys shall be conducted sufficient to determine the species present and the type of roost (day, night, maternity, etc.). If the bats are roosting in a structure on the property during the daytime but are not part of an active maternity colony, then exclusion measures will include a one-way valve that allows bats to get out but are designed so that the bats may not re-enter the structure. For each occupied roost removed, one bat box or crevice structure will be installed in similar habitat and should have similar cavity or crevices properties to those that are removed, including access, ventilation, dimensions, height above ground, and thermal conditions.

The above measures do not specify a survey protocol to ensure the detection of bats that may be present, and appears to address the decision to allow the eviction of bats from a roost by deferring to CDFW but does not describe under what authority CDFW could provide an approval.

Specific impact: Without appropriate avoidance and minimization measures for special status bat species, potential significant impacts resulting from ground- and vegetation-disturbing activities associated with Project construction include indirect behavioral effects such as inability to reproduce, and direct mortality.

Evidence impact is potentially significant: The Project is within the range of various bat species and includes of suitable nesting habitat. Project impacts at a roost has the potential to affect the entire roost, and in the case of a maternal roost, adult and dependent young could become trapped in the roost or be present in the roost when a structure is cut or demolished. Affects, including direct mortality, could impact an entire roost including an entire cohort of young.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to bats associated with the Project, CDFW recommends including the following mitigation measures in the MND:

Recommended Mitigation Measure 2: Bat Surveys

CDFW recommends that a qualified biologist conduct focused surveys to establish species presence and seasonal usage. CDFW recommends that individual project areas be assessed for potential to support roosting bats well in advance of Project activities and that pre-activity surveys occur within two weeks prior to the start of work. Surveys are recommended well in advance of Project activities to allow adequate time for exclusionary measure planning and implementation, if necessary.

Focused survey methodology is advised to include visual surveys of bats (observation of presence of bats during foraging period), inspection for suitable habitat or bat sign (guano), and use of ultrasonic detectors during all dusk emergence and pre-dawn re-entry. To maximize detectability, CDFW recommends that surveys be conducted within one 24-hour period.

Recommended Mitigation Measure 3: Bat Avoidance and Minimization

If a bat roost is detected during pre-construction surveys, CDFW recommends maintaining a minimum 50-foot no-disturbance buffer during activity, or postponing activity until repeat surveying documents that bats no longer use the roost.

If avoidance or postponement is not feasible, CDFW recommends that the MND include a Bat Eviction Plan subject to public and agency review that includes details for excluding bats from the roost site, and monitoring to ensure that all bats have exited the roost prior to the start of activity and are unable to re-enter the roost until activity is completed. CDFW also recommends that Project and bat eviction activities be timed to avoid lactation and young-rearing (typically April through August but specific to timing for the species that are present).

COMMENT 3: Pesticide Use

Issue: The Project has the potential to temporarily and permanently impact biological resources through the use of pesticides. The United States Environmental Protection Agency (USEPA) regulates pesticides at the Federal level and the California Department of Pesticide Regulation (DPR) regulates pesticides at the State level. There are currently no pesticides registered specifically for use directly on cannabis. Based on DPR guidance, the only pesticide products not illegal to use on cannabis are those that contain an active ingredient that is exempt from residue-tolerance requirements, and (1) registered and labeled for use that is broad enough to include use on cannabis (i.e., unspecified green plants) or (2) exempt from registration requirements as a minimum risk pesticide under Federal Insecticide, Fungicide, and Rodenticide Act section 25(b) and California Code of Regulations, Title 3, section 6147. The MND does not address the potential use of pesticides related to the Project; CDFW recommends that the MND disclose any allowed pesticide use and evaluate the potential site-specific and species-specific impacts (i.e., including the special status species listed above), including direct and secondary toxicity, from pesticide use, such as from storage, runoff, or application and other airborne drift.

Specific impact: Baker (2018) reports that the direct effects of pesticides on wildlife include "acute poisoning, immunotoxicity, endocrine disruption, reproductive failure, altered morphology and growth rates, and changes in behavior" (p. 1). Increased anticoagulant rodenticide use has been noted by CDFW staff at clandestine cannabis cultivation sites throughout the State, including the use of illegal rodenticides in endangered species habitat in San Luis Obispo County (D. Hacker, personal communication, March 28, 2017). The use of pesticides, including anticoagulants and their potential for secondary poisoning to native species, is a significant concern. According to Baker (2018), "[p]esticides can indirectly impact wildlife through reduction of food resources and refuges, starvation due to decreased prey availability, hypothermia, and secondary poisoning" (p. 3).

Evidence impact is potentially significant: The Project includes establishing a 2.98-acre outdoor cultivation area and it is unclear if pesticides will be used in this area. The Project area contains potentially suitable habitat and features that could support several special-status species. As a result, Project activities have the potential to significantly impact special-status species through the use of pesticides.

Recommended Potentially Feasible Mitigation Measures

To evaluate potential impacts from pesticide use associated with the Project, CDFW recommends including the following mitigation measure in the MND.

Recommended Mitigation Measure 4: Pesticide Use

CDFW recommends that the MND restrict the use of herbicides, rodenticides, or fertilizers on the Project area to those approved by USEPA and DPR, and that the MND identify label instructions that pertain to safe use around wildlife and require use that conforms to label instructions.

II. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 4: Oak Woodlands

Issue: CEQA includes Public Resources Code (PRC) section 21083.4, which states that 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 county determines that there may be a significant effect to oak woodlands, the county shall require appropriate oak woodlands mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. A total of nine oak trees ranging in DBH of 12 to 49 inches will be removed as part of this Project. CDFW considers the removal of oaks in the Project area, including heritage-sized (i.e. 24 inches DBH or greater) individual trees and the habitat created by oak woodlands as potentially significant. CDFW recommends that the MND evaluate the value of mature oaks on the Project site and implications to related species in terms of lost habitat for essential behaviors and sensitive ecological processes such as breeding, forage, and cover. For example, large, acorn-bearing oak trees are a critical source of food for wintering deer and other wildlife.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to oak woodlands associated with the Project, CDFW recommends including the following mitigation measure in the MND:

Recommended Mitigation Measure 5: Oak Avoidance

CDFW recommends retaining large oak trees (i.e., greater than 12 inches in DBH) on the Project site to the maximum extent possible during any construction or development activities. Location and routing of access roads, utility connections, septic systems and building sites where they will require the minimum amount of disturbance to large oak trees is advised.

Recommended Mitigation Measure 6: Oak Removal Mitigation

CDFW recommends that the MND include oak mitigation as required by CEQA section 21083.4(b), if oaks will be removed as part of future development. Mitigation may include conservation of oak woodlands as through a conservation easement, tree replacement plantings, or contributing funds to the Oak Woodlands Conservation Fund. CDFW recommends that mitigation to offset Project impacts to oaks be funded or otherwise in place prior to the impacts to oaks, or within a specified and enforceable time period relative to the removal of oaks

III. Editorial Comments and/or Suggestions

MND Discussion (a) Special-Status Plants, page 48: According to the MND, two special-status plant species, paniculate tarplant and California spineflower, were detected in the southwestern portion of the Property during appropriately timed spring and summer botanical surveys in 2019. Based on the site plans evaluated, approximately 60 percent (0.58 acre) of the paniculate tarplants mapped on the Property would be permanently impacted by the placement of greenhouses, ancillary nurseries, fencing, water lines, Area 1 outdoor canopy, portions of the access road, and potentially by storm water treatment retention basins. Adjustments to the locations of some of these project components could reduce the amount of impacts to paniculate tarplant.

Approximately 50 California spineflower plants were detected in an area totaling approximately 0.04 acre. Approximately 50 percent (0.02 acre) of the spineflowers mapped on the Property will be permanently impacted by a potential storm water treatment retention basin and a bio swale. April 19, 2019 site plans indicate these two features as "potential" locations. Adjustments to the locations of these project components could potentially eliminate impacts to California spineflower.

The storm water treatment retention basins are not included in the Project description, while they are features on Site Plans (Figures 3 and 3a) it is unclear if they are potential features and where they will be located. Furthermore, the bio swale is not included in the Project description and cannot be located on the Site Plans (Figures 3-3c). A clear, complete Project description and all associated Figures are critical for CDFW to be able to fully evaluate Project impacts. CDFW recommends clarifying the Project description and Site Plans to either include the storm water treatment retention basin(s) and bio swale and their location or remove the features if they are no longer a part of the Project. Mitigation Measure BR-1 (page 51) for the mitigation for permanent impacts to paniculate tarplant and California spineflower does not include adjusting the locations of project components that could potentially eliminate or reduce the impacts to these species. CDFW recommends clarifying if adjustments to the locations will be made to avoid or reduce impacts to these species.

Nesting Birds: Mitigation Measure BR-2 (page 52) includes conducting preconstruction surveys for nesting birds if any ground or vegetation disturbance activities (including equipment staging and mowing) will occur between February 1 and September 15. If nesting birds are located, no construction activities will occur within 100 feet of nests. Occupied nests of special-status bird species within Project work areas will be mapped using GPS or survey equipment. Work willI not be allowed within a 300-foot buffer (for non-raptors) or 500-foot buffer (for raptors) while the nest is in use. The Project biologist conducing the nesting survey will recommend an appropriate buffer depending upon site conditions and the species for review and approval by the County in consultation with CDFW. Occupied nests of special-status bird species will be monitored at least every two weeks through the nesting season to document nest success and check for Project compliance with buffer zones.

CDFW encourages Project implementation to occur during the bird non-nesting season; however, if ground-disturbing activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

CDFW recommends that a qualified wildlife biologist conduct preconstruction surveys for active nests no more than 10-days prior to the start of ground disturbance, tree trimming, or tree removal to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, odors, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, tree trimming, or tree removal, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends that the work causing that change cease and CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250-feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist

advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

The MND states that White-tailed Kite has the potential to occur and nest on the property and could be impacted if tree trimming or tree removal activities are conducted during the nesting season (February 1 to September 15). White-tailed Kite is a fully protected species. CDFW recommends a 500-foot no-disturbance buffer for White-tailed Kite nests.

Land Conversion: Project activities that result in land conversion may also result in habitat loss for special-status species, migration or movement corridor limitations, or fragmentation of sensitive habitat. Loss of habitat to development and agriculture are contributing factors to the decline of many special-status species and game species. CDFW recommends that this MND for cannabis activities address cumulative impacts of land conversion.

Cannabis Water Use: Water use estimates for cannabis plants are not well established in literature and estimates from published and unpublished sources range between 3.8 liters and 56.8 liters per plant per day. Based on research and observations made by CDFW in northern California, cannabis grow sites have significantly impacted streams through water diversions resulting in reduced flows and dewatered streams (Bauer et al., 2015). Groundwater use for clandestine cannabis cultivation activities have resulted in lowering the groundwater water table and have impacted water supplies to streams in northern California. CDFW recommends that the MND address the impacts to groundwater and surface water that may occur from Project activities.

Light Pollution: Cannabis cultivation operations often use artificial lighting or "mixed-light" techniques in both greenhouse structures as well as indoor operations to increase yields. Night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (i.e., bird song; Miller, 2006), determining when to begin foraging (Stone et al., 2009), behavior thermoregulation (Beiswenger, 1977), and migration (Longcore and Rich, 2004). Even aquatic species can be affected; migration of salmonids can be slowed or halted by the presence of artificial lighting (Tabor et al., 2004; Nightingale et al., 2006). Phototaxis, a phenomenon that results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich, 2004). CDFW recommends that the MND address light pollution in the analysis of impacts.

Cumulative Impacts: General impacts from Projects include habitat fragmentation, degradation, habitat loss, migration/movement corridor limitations, and potential loss of individuals to the population. Multiple cannabis-related Projects have been proposed throughout San Luis Obispo County with similar impacts to biological resources. CDFW

recommends the lead agency consider all approved and future projects when determining impact significance to biological resources.

ENVIRONMENTAL DATA

CEQA requires that information developed in Environmental Impact Reports and Negative Declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNDDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs., tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the Project to assist San Luis Obispo County in identifying and mitigating Project impacts on biological resources.

Should you have questions regarding this letter or for further coordination, please contact Shannon Dellaquila, Senior Environmental Scientist (Specialist), at the address provided on this letterhead or by email at shannon.dellaquila@wildlife.ca.gov or Sarah Paulson, Senior Environmental Scientist (Supervisory), at sarah.paulson@wildlife.ca.gov.

Sincerely,

FA83F09FE08945A...

DocuSigned by:

Julie A. Vance Regional Manager

REFERENCES

- Baker, A. 2018. A review of the potential impacts of cannabis cultivation of fish and wildlife resources. California Department of Fish and Wildlife, Sacramento, California.
- Bauer, S., J. Olson, A. Cockrill, M. van Hattem, L. Miller, and M. Tauzer. 2015. Impacts of surface water diversions for marijuana cultivation on aquatic habitat in four northwestern California watersheds. PLoS ONE 10(3): e0120016. doi:10.1371/journal.pone.0120016.
- Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. Ecology 58:98–108.
- California Department of Fish and Wildlife (CDFW). 2019. Biogeographic Information and Observation System (BIOS). 2018 https://www.wildlife.ca.gov/Data/BIOS. Accessed June 23, 2020.
- Goulson, D. 2010. Bumblebees: behaviour, ecology, and conservation. Oxford University Press, New York. 317pp.
- Hatfield, R, S. Colla, S. Jepsen, L. Richardson, R. Thorp, and S. Foltz Jordan. 2014. Draft IUCN assessments for North American *Bombus* spp. for the North American IUCN bumble bee specialist group. The Xerces Society for Invertebrate Conservation, www.xerces.org, Portland, OR.
- Hatfield, R.,S. Jepsen, R. Thorp, L. Richardson, and S. Colla. 2015. *Bombus crotchii*. The IUCN Red List of Threatened Species. http://dx.doi.org/10.2305/IUCN.UK.2015--2.RLTS.T44937582A46440211.en. Accessed 16 August 2019.
- Longcore, T. and C. Rich. 2004. Ecological light pollution review. Frontiers in Ecology and the Environment 2:191–198.
- Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor 108:130–139.
- Nightingale, B., T. Longcore, and C.A. Simenstad. 2006. Artificial night lighting and fishes. Pages 257–276 *in* C. Rich and T. Longcore, editors. Ecological consequences of artificial light at night. Island Press, Washington, D.C., USA.
- Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology 19:1123–1127. Elsevier Ltd.

- Tabor, R. A., G.S. Brown, and V.T. Luiting. 2004. The effect of light intensity on sockeye salmon fry migratory behavior and predation by cottids in the Cedar River, Washington. North American Journal of Fisheries Management 24:128–145.
- Williams, P. H., R. W. Thorp, L. L. Richardson, and S.R. Colla. 2014. Bumble bees of North America: an identification guide. Princeton University Press, Princeton, New Jersey. 208pp.
- Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and game commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October 2018.

Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: Beanway Conditional Use Permit (DRC2019-00129)

SCH No.: 2020030353

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Construction	
Mitigation Measure 2: Bat Surveys	
Mitigation Measure 3: Bat Avoidance and Minimization	
Mitigation Measure 6: Oak Removal Mitigation	
During Construction	
Mitigation Measure 1: CBB Take Avoidance	
Mitigation Measure 4: Pesticide Use	
Mitigation Measure 5: Oak Avoidance	

1 Rev. 2013.1.1