State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

February 24, 2022

Eric Hughes
County of San Luis Obispo, Department of Planning and Building
976 Osos Street, Room 300
San Luis Obispo, California 93408-2040
ehughes@co.slo.ca.us

Subject: GreenView, LLC - Minor Use Permit (DRC2018-00010)
Mitigated Negative Declaration (MND)
State Clearing House No. 2021080418

Dear Mr. Hughes

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

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project 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 the Fish and Game Code.

Although the comment period has passed, CDFW would appreciate if San Luis Obispo County of San Luis Obispo would consider the following comments.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & Game 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). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed alteration regulatory authority (Fish & Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

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.

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 sections 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 the bed, channel, or bank of a stream or substantially divert or obstruct the natural flow of a stream.

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).

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State for 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 (California Code of Regulations, Title 14, Chapter 3, § 15380), CDFW recommends it be fully considered in the environmental analysis for this Project.

PROJECT DESCRIPTION SUMMARY

Proponent: Rene Cano, Greenview LLC

Objective: The Project proponent, GreenView, LLC, is seeking a Minor Use Permit (DRC2018-00010) for the phased development of up to three acres of outdoor cannabis cultivation canopy within hoop structures, ancillary processing activities, ancillary transport, and other related site improvements. Phase I includes the installation of 129,600 square feet of hoop structures, security fencing and surveillance equipment, a 5,000-gallon galvanized steel water tank, three 2,500-gallon tanks, a 120 square foot pesticide storage shed, and improvements for parking and access roads. Phase II includes the installation of a 10,000 square foot processing facility. The project would result in approximately 4.02 acres of site disturbance, including 182 cubic yards of cut and 122 cubic yards of fill.

Location: The project will occur within a 40-acre parcel located at 8770 Carrisa Highway, Santa Margarita, California, 93453; Assessor's Parcel No. 072-301-012; Carrizo Planning Area; agricultural zoned.

Timeframe: Unspecified.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following recommendations to assist the County of San Luis Obispo 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. Based on a review of the Project description, a review of the California Natural Diversity Database (CNDDB) records, a review of aerial photographs of the Project area and surround habitat, several special status species could be potentially impacted by Project activities.

In particular, CDFW is concerned regarding potential impacts for the following special status wildlife species and habitats known to occupy the Project area and surrounding habitat: the federally endangered and state threatened San Joaquin kit fox (*Vulpes macrotis mutica*); federally and state endangered giant kangaroo rat (*Dipodomys ingen*); state Candidate for listing as Endangered tricolored blackbird (Agelaius tricolor); State threatened San Joaquin antelope squirrel (*Ammospermophilus nelsoni*); and state species of special concern burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), Northern California legless lizard (*Ammospermophilus nelson*), western spadefoot (*spea hammondii*), western pond turtle (*Emys marmorata*), and the rare and endemic Crotch bumble bee (*Bombus crotchii)* which is a Species of Greatest Conservation Need in California (CDFW 2015a);California Rare Plant Rank 1B.3 Lost Hills crownscale (*Atriplex coronata var. vallicola*), Lemmon's jewelflower (*Caulanthus*

lemmonii), recurved larkspur (*Delphinium recurvatum*), spiny-sepaled button-celery (*Eryngium spinosepalum*), Munz's tidy-tips (*Layia munzii*), shining navarretia (*Navarretia nigelliformis ssp. radians*), and La Panza mariposa-lily (*Calochortus simulans*); and Rank 1B.2 Kern mallow (*eremalcheparri ssp. kernensis*).

A review of aerial imagery indicates that the Project area consists of existing buildings, trees, grasslands, an ephemeral stream, and other hydrological features which have the potential to support special status species. The Project has the potential to impact biological resources. CDFW recommends that the following modifications, or edits be incorporated into the MND, including proposed avoidance, minimization, and compensatory measures prior to its adoption by the County of San Luis Obispo.

San Joaquin Kit Fox

San Joaquin kit fox (SJKF) occurrences have been documented within the Project area (CDFW 2022). The Project has the potential to temporarily disturb and permanently alter suitable habitat for SJKF and may directly impact individuals if present during construction and facility operation. SJKF den in a variety of areas such as right-of-ways, agricultural and fallow/ruderal habitat, dry stream channels, and canal levees, and populations can fluctuate over time (Cypher & Frost 1999). SJKF may be attracted to Project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in fallow and agricultural fields and utilize streams and canals as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the subject parcel and surrounding area. Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al 2003) The Project area is within this remaining highly suitable habitat; therefore, subsequent ground-disturbing activities have the potential to significantly impact local SJKF populations.

To evaluate potential impacts to SJKF associated with subsequent land conversion, ground disturbance and construction, CDFW recommends conducting the following evaluation of project areas and implementing the following mitigation measures.

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for SJKF.

- CDFW recommends assessing presence/absence of SJKF by having qualified biologists conduct surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the United States Fish and Wildlife Service's "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (USFWS 2011).

- SJKF detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081(b).

Giant Kangaroo Rat

Giant Kangaroo Rat (GKR) are known to occur in the region of the Project area (CDFW 2022). However, the biological assessment for the Project states that a formal survey for GKR has never occurred in the area. GKR inhabit areas with sandy-loam soils with gentle slopes vegetated with annual grasses and scattered shrubs (ESRP 2022). Without appropriate avoidance and minimization measures for GKR, significant impacts resulting from Project activities include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals. Habitat loss resulting from development is the primary threat to GKR. If GKR are present on or in the vicinity of the Project area, Project activities have the potential to significantly impact populations of this species (USFWS 2010, ESRP 2022). Because potentially suitable habitat for GKR is present on and within the vicinity of the Project area, CDFW recommends conducting the following evaluation of the Project area and including the following measures as conditions of approval for the Project:

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation to determine if the Project area or its immediate vicinity contains suitable habitat for GKR.

- If suitable habitat is present, CDFW recommends that a trapping plan for determining presence of GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. CDFW recommends these surveys be conducted by a qualified biologist who holds a Memorandum of Understanding with CDFW for GKR. CDFW further recommends that these surveys be conducted between April 1 and October 31, when kangaroo rats are most active and well in advance of Project activities in order to determine if impacts to GKR could occur.

- If suitable habitat is present and trapping is not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrows. Alternatively, if GKR are found within the Project area during preconstruction surveys or construction activities, consultation with CDFW is advised to discuss how to implement the Project and avoid

- If avoidance of GKR is not feasible, CDFW recommends acquiring an ITP prior to any ground disturbing activities, pursuant Fish and Game Code section 2081(b).

Tricolored Blackbird

Tricolored blackbird (TRBL) occurrences have been documented on the Project site (CDFW 2022). TRBL colonies require suitable nesting habitat, nearby freshwater, and nearby foraging habitat including semi-natural grasslands, agricultural croplands, or alkali scrub (Beedy et al. 2017). Habitat both within and surrounding the Project area may provide suitable foraging habitat for TRBL and a pond located on-site may provide suitable nesting habitat. Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with Project activities include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young. The Project site contains elements that have the potential to support TRBL nesting colonies. TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Beedy et al. 2017). This species has been steadily declining due to annual breeding losses due to crop-harvesting activities, insufficient insect resources, and habitat loss due to land conversion for agriculture, rangeland, and urban development (Beedy et al. 2017).

- CDFW recommends that Project activities be timed to avoid the normal bird breeding season (February 1 through September 15). However, if Project activities must take place during that time, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting TRBL in accordance with CDFW's "*Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 2015*" (CDFW 2015b) no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

- If an active TRBL nesting colony is found during preconstruction surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer in accordance with CDFW's "*Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015*" (CDFW 2015b). CDFW advises that this buffer remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, the colony should be reassessed to determine the extent of the breeding colony within 10 days for Project initiation.

- In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081(b), prior to any ground-disturbing activities.

San Joaquin Antelope Squirrel

San Joaquin antelope squirrel (SJAS) have been documented to occur within areas of suitable habitat within the Project vicinity (CDFW 2022). Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Without appropriate avoidance and minimization measures for SJAS, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals. Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJAS. Very little suitable habitat for this species remains along the western floor of the San Joaquin Valley (ESRP 2020). Proposed ground-disturbing activities within the Project area may have the potential to significantly impact local populations of SJAS.

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for SJAS.

- In areas of suitable habitat, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS using line transects with 10- to 30-meter spacing of Project areas and a 50-foot buffer around those areas. CDFW further advises that these surveys be conducted between April 1 and September 20, during daytime temperatures between 68° and 86° F (CDFG 1990), to maximize detectability.

- If suitable habitat is present and surveys are not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances until the completion of Project activities.

- SJAS detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire a State ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081(b).

Burrowing Owl

Burrowing owls (BUOW) may occur near the Project site (CDFW 2022). BUOW inhabit open grassland or adjacent canal banks, ROWs, vacant lots, etc. containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Review of aerial imagery indicates that some of the Project site is bordered by annual grassland and potentially fallow agricultural fields and may be present within the Project site. Potentially significant direct impacts associated with subsequent activities include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. BUOW rely on burrow habitat year-round for their survival and reproduction.

Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). Therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

- CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's Staff Report on Burrowing Owl Mitigation" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable.

- CDFW recommends no-disturbance buffers, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

- If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. BUOW may

attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

Crotch Bumble Bee

Crotch bumble bee (CBB) have been documented to occur within the vicinity of the subject parcel (CDFW 2022). 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, underbrush 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). The Project area is bordered by grassland habitat that has the potential to support CBB; therefore, ground disturbance and vegetation removal association with Project activities has the potential to impact CBB populations. Without appropriate avoidance and minimization measures for CBB, potential significant impacts associated with the Project's construction could include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduced health and vigor of eggs and young, and direct mortality of individuals.

To evaluate potential impacts to CBB, CDFW recommends conducting the following evaluation of the subject parcel and its vicinity and implementing the following mitigation measures: CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features prior to Project implementation to evaluate impacts resulting from potential ground- and vegetation-disturbing activities.

- CDFW recommends that all suitable burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is recommended to discuss how to implement Project activities and avoid impacts to the CBB. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid impacts to CBB.

Species of State Special Concern: American badger, western spadefoot, northern California legless lizard, and San Joaquin coachwhip

American badger can inhabit grassland habitats with dry friable soils, suitable for excavating dens (Zeiner et al. 1990b). Western spadefoot occur in grassland in playas and alkali flats (Thomson et al. 2016). Northern California legless lizard are found primarily in areas with sandy or loose organic soils or where there is plenty of leaf litter (Zeiner et al. 1990c). In the aquatic phase, they are found in ponds, streams, and

reservoirs (Thomson, et al. 2016). San Joaquin coachwhip inhabit open, dry areas with little or no tree cover in valley grassland and saltbush scrub habitat (Thomson, et al. 2016). The subject parcel is within the range of all four of the species mentioned above. All four species have been documented to occur in the vicinity of the parcel, and the parcel and/or the adjacent blue line stream and/or grassland likely support the habitat elements mentioned above. Therefore, the subject parcel is suitable for occupation or colonization by these species. Without appropriate avoidance and minimization measures for American badger, western spadefoot, northern California legless lizard, and San Joaquin coachwhip, potentially significant impacts associated with the Project's construction could include den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and/or direct mortality. Habitat loss is a primary threat to all four of the species mentioned above (Zeiner et al. 1990b and c and Thomson et al. 2016). Impacts to the stream located within the southwest portion of the parcel and grasslands within the Project area has the potential to significantly impact local populations of these species.

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation to determine if the Project area or its immediate vicinity contains suitable habitat for the species mentioned above.

- If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for each species and their requisite habitat features to evaluate potential impacts resulting from ground-disturbance.

- Avoidance whenever possible is encouraged via delineation and observing a 50-foot no-disturbance buffer around burrows and dens.

Special status plants

Several special status plants are known to occur in the vicinity of the Project area including but not limited to Lost Hills crownscale, Lemmon's jewelflower, recurved larkspur, spiny-sepaled button-celery, Munz's tidy-tips, shining navarretia, La Panza mariposa-lily, and Kern mallow (CDFW 2022). Without appropriate avoidance and minimization measures for special status plants, potential significant impacts associated with the Project's construction could include inability to reproduce, direct mortality, and habitat modification. The Project site consist of trees, grasslands, and an ephemeral stream that bisects the subject parcel, which may provide suitable habitat for special status plant species. As a result, ground-disturbing activities have the potential to significantly impact special status plant species.

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation to determine if special status plant species or

their habitats are present on or in the vicinity of the Project and propose appropriate mitigation measures to avoid impacts to those resources.

- If suitable habitat is present, CDFW recommends that the Project site be surveyed for special status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW, 2018b). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

- CDFW recommends special status plant species be fully avoided whenever possible by delineation and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then consultation with CDFW is advised to determine appropriate minimization and mitigation measures for impacts to special status plant species.

- If buffers cannot be maintained for special status plant species, consultation with CDFW is advised to discuss how to determine appropriate minimization and mitigation measures for impacts to special status plant species.

- If a State listed plant, such as the Kern Mallow, is identified during botanical surveys, consultation with CDFW is advised to discuss how to implement the project and avoid take, or if avoidance through the implementation of the no-disturbance buffer referenced above is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081(b), prior to any ground-disturbing activities.

Cannabis-Specific Impacts on Biological Resources

There are many impacts to biological resources associated with cannabis cultivation, whether indoor or outdoor cultivation (i.e., pesticides, fertilizers/imported soils, water pollution, groundwater depletion, vegetation clearing, construction and other development in floodplains, fencing, roads, noise, artificial light, dams and stream crossings, water diversions, and pond construction). CDFW recommends that the County of San Luis Obispo consider cannabis-specific impacts to biological resources that may result from the Project activities.

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, S. 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 CEQA document address the impacts to groundwater and surface water that may occur from Project activities.

Cannabis Lighting Use

Cannabis cultivation operations often use artificial lighting or “mixed-light” techniques in indoor operations to increase yields. If not disposed of properly, these lighting materials pose significant environmental risks because they contain mercury and other toxins (O’Hare et al. 2013). In addition to containing toxic substances, artificial lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife. Night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., birdsong; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavioral thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). Phototaxis, a phenomenon that results in attraction and movement toward light or away from light; therefore, wildlife species exposed artificial light may have a negative phototaxis response causing disorientation, entrapment, and temporarily blindness (Longcore and Rich 2004).

CDFW recommends that light should not be visible outside of any structure used for cannabis cultivation. Use blackout curtains where artificial light is used to prevent light escapement. Eliminate all non-essential lighting from cannabis sites and avoid or limit the use of artificial light during the hours of dawn and dusk, as these windows of time are when many wildlife species are most active. ensuring that lighting for cultivation activities and security purposes is shielded, cast downward, and does not spill over onto other properties or upwards into the night sky (see the International Dark-Sky Association standards at https://www.darksky.org. Use LED lighting with a correlated color temperature of 3,000 Kelvins or less, properly dispose of hazardous waste, and recycle all lighting that contains toxic compounds with a qualified recycler.

Pesticides, Including Fungicides, Herbicides, and Rodenticides

Cannabis cultivation sites (whether indoor or outdoor) often use substantial quantities of pesticides, including fungicides, herbicides, insecticides, and rodenticides. Wildlife, including beneficial arthropods, birds, mammals, amphibians, reptiles, and fish, can be poisoned by pesticides after exposure to a toxic dose through ingestion, inhalation, or dermal contact (Fleischli et al. 2004, Pimentel 2005, Berny 2007). They can also experience secondary poisoning through feeding on animals that have been directly exposed to the pesticides. (Even if used indoors, rodenticides may result in secondary poisoning through ingestion of sickened animals that leave the premises or ingestion of lethally poisoned animals disposed of outside.) Nonlethal doses of pesticides can

negatively affect wildlife; pesticides can compromise immune systems, cause hormone imbalances, affect reproduction, and alter growth rates of many wildlife species (Pimentel 2005, Li and Kawada 2006, Relyea and Diecks 2008, Baldwin et al. 2009). CDFW recommends minimizing use of synthetic pesticides, and, if they are used, to always use them as directed by the manufacturer, including proper storage and disposal. Toxic pesticides should not be used where they may pass into waters of the state, including ephemeral streams, in violation of Fish and Game Code section 5650(6). For details, visit: https://www.cdpr.ca.gov/docs/cannabis/questions.htm.

Anticoagulant rodenticides and rodenticides that incorporate “flavorizers” that make the pesticides appetizing to a variety of species should not be used at cultivation sites. (Note that with the passage of AB 1788, signed by the governor on September 29, 2020, the general use of second-generation anticoagulants is now banned in California). Alternatives to toxic rodenticides may be used to control pest populations at and around cultivation sites, including sanitation (removing food sources like pet food, cleaning up refuse, and securing garbage in sealed containers) and physical barriers (e.g., sealing holes in roofs/walls). Snap traps should not be used outdoors as they pose a hazard to non-target wildlife. Sticky or glue traps should be avoided altogether; these pose a hazard to non-target wildlife and result in prolonged/inhumane death. California Department of Pesticide Regulation (DPR) stipulates that pesticides must meet certain criteria to be legal for use on cannabis. For pest management practices, visit: https://www.cdpr.ca.gov/docs/county/cacltrs/penfltrs/penf2015/2015atch/attach1502.pdf.

Impacts of Cannabis Cultivation on Fish and Wildlife Resources

For more information on potential impacts to fish and wildlife resources as a result of cannabis cultivation, visit: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=160552&inline.

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 the Carrizo Plain Area and specifically along Carrisa Highway all with similar impacts to biological resources. CDFW recommends the lead agency consider all approved and future projects when determining impact significance to biological resources.

Editorial Comments and Suggestions

Nesting birds

CDFW encourages that Project implementation occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (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.

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

If continuous monitoring of identified nests by a qualified 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 that the birds have fledged and are no longer reliant upon the nest or on-site 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 biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

Biological Surveys

Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. For CDFW "Survey and Monitoring Protocols and Guidelines," visit https://wildlife.ca.gov/Conservation/Survey-Protocols. Note that CDFW generally considers biological field assessments for wildlife and plants to be valid for a one-year period, except when significant environmental changes occur, such as disturbance resulting from urbanization or wildfire. Surveys should be conducted during wildlife's active season when the wildlife species is most likely to be detected and plant surveys conducted during the species blooming/flowering period. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

Role of Lake and Streambed Alteration (LSA) Program in Cannabis Cultivation Licensing

Business and Professions Code 26060.1 subsection (b)(3) includes a requirement that California Department of Food and Agriculture 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. Cannabis cultivators may apply (notify) online for an LSA Agreement through EPIMS (Environmental Permit Information Management System; https://epims.wildlife.ca.gov) and learn more about permitting at https://wildlife.ca.gov/Conservation/Cannabis/Permitting.

Please note that 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 sections 1600 et seq., Section 1602 subdivision (a) of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. “Any river, stream, or lake” includes features that are ephemeral or intermittent as well as those that are perennial. In addition, CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement. CDFW recommends that staff within the Central Region Cannabis Permitting Program be contacted well in advance of construction so that impacts to streams and associated resources may be analyzed and, if appropriate, avoidance and minimization measures may be proposed.

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 CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. 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: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

The Project as proposed, would have an impact on fish and/or wildlife, and assessment of filling fees is 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 & Game Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

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

Questions regarding this letter or further coordination should be directed to Jackson Powell, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 899-9758, or by email at jackson.powell@wildlife.ca.gov.

Sincerely,

DocuSigned by:
FA83F09FE08945A...
Julie A. Vance
Regional Manager

ec: State Clearinghouse
state.clearinghouse@opr.ca.gov

Jackson Powell
California Department of Fish and Wildlife

Patrick McGibney
Biodiversity First!
patindi@aol.com

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