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May 9, 2022

Governor's Office of Planning & Research

Jun 06 2022

City of California City
Planning Department
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California City, California 93505
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STATE CLEARINGHOUSE

**Subject: Commercial Cannabis Cultivation, Processing
and Recreational Facility (Project)
Mitigated Negative Declaration (MND)**

Dear California City Planning Department,

The California Department of Fish and Wildlife (CDFW) received notification of a prepared Mitigated Negative Declaration (MND) that has been prepared by the City of California City 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. While the comment period may have ended, CDFW would appreciate if you will still consider our 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.

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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.

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 §§ 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 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 (California Code of Regulations, Title 14, Chapter 3, § 15380), CDFW recommends it be fully considered in the environmental analysis for this Project.

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.

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.

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PROJECT DESCRIPTION SUMMARY

Proponent: Leland Krelle & Doug Nagy

Objective: The Project Proponent, Leland Krelle and Doug Nagy, proposes the construction of 26 buildings totaling 265,000 square feet, 2 water retention basins encompassing 1.4 acres and 125 parking spaces with the purpose of establishing a commercial cannabis cultivation, recreation, and manufacturing facility within the City of California City. The project will utilize all 60 acres of the 60-acre parcel.

Location: The coordinates for the projects are approximately 35.14544 N, -117.91180 W, Assessor's Parcel Number 302-062-03-9.

Timeframe: Unspecified.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following recommendations to assist the City of California City 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 (CNDDDB) records, and 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 to resources including special status species resulting from the ground-disturbing development activities and ongoing facilities operation, including but not limited to: the State threatened Mohave ground squirrel (*Xenospermophilus mohavensis*); State and Federally threatened Mojave desert tortoise (*Gopherus agassizii*); State species of special concern burrowing owl (*Athene cunicularia*), Le Conte's Thrasher (*Toxostoma lecontei*), and loggerhead shrike (*Lanius ludovicianus*); the protected furbearing mammal desert kit fox (*Vulpes macrotis arsipus*); and California Rare Plant Rank 1B.2 the Barstow woolly sunflower (*Eriophyllum mohavense*), and Red rock poppy (*Eschscholzia minutiflora*) (CNDDDB 2022).

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.

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Mohave Ground Squirrel

Mohave ground squirrel (MGS) are known to occur in the Project area (CDFW 2022). While the Project site has been previously disturbed, a review of aerial imagery indicates that there has been some element of natural recruitment and reclamation of desert habitat. Potential habitat for MGS includes land supporting desert shrub vegetation within or adjacent to the known geographic range of the species (CDFG 2003). Because of the Project location and habitat onsite, MGS have the potential to be within the Project area and be impacted by Project activities. Without appropriate avoidance and minimization measures for MGS, potential significant impacts associated with Project-related activities include burrow collapse, inadvertent entrapment, reduced reproductive success, and mortality of individuals.

Major threats to the MGS are drought, habitat destruction, habitat fragmentation, and habitat degradation (Gustafson 1993, CDFW 2019). MGS are restricted to a small geographic range and the greatest habitat loss has occurred near desert towns including California City (Gustafson 1993). Natural cycling is anticipated in MGS populations, therefore, the true indicators of the status of the species are the quantity, pattern of distribution, and quality of habitat (Gustafson 1993, CDFW 2019). Project activities may result in the loss of potential MGS habitat through conversion, may increase habitat fragmentation, and expand urbanization into the area.

To evaluate potential Project-related impacts to MGS, CDFW recommends conducting the following evaluation of the Project area, including the following mitigation measures in the MND, and that these measures be made conditions of approval for the Project:

- CDFW recommends that a qualified permitted biologist conduct protocol surveys for MGS following the methods described in the “Mohave Ground Squirrel Survey Guidelines” (CDFG 2003) during the appropriate survey season prior to Project implementation, including any vegetation- or ground-disturbing activities. Please note that guidelines indicate that a visual survey and up to three trapping sessions may need to be conducted (CDFG 2003). Results of the MGS surveys are advised to be submitted to the CDFW. Please note MGS surveys are valid for one year and should be conducted within a year of the start of ground-disturbing activities
- If protocol surveys will not be conducted or if surveys detect MGS, in order to implement full avoidance for MGS, CDFW recommends a 50-foot no-disturbance buffer be employed around all burrows that could be used by MGS and that all suitable burrows and burrow complexes maintain habitat connectivity with suitable habitat features outside the Project site.

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- If MGS are found within the Project site during protocol surveys, preconstruction surveys, or construction activities, consultation with CDFW is recommended to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to any ground-disturbing activities, pursuant Fish and Game Code section 2081 subsection (b). Alternatively, the applicant can assume presence of MGS and acquire an ITP prior to initiating Project implementation.

Mojave Desert Tortoise

Mojave Desert tortoise (MDT) are known to occur within the Project area (CDFW 2022). MDT have been documented and are known to be extant in the region of the project area. MDT are most common in desert scrub, desert wash, and Joshua tree habitats (CDFW 2018a). MDT may have the potential to be onsite and impacted by Project activities.

Without appropriate avoidance and minimization measures for MDT, potentially significant impacts that may result from Project-related activities include loss of foraging habitat, habitat degradation and fragmentation, burrow destruction, and direct mortality. Human impacts to desert tortoise include habitat conversion to agriculture and urban lands, degradation of habitat by off-highway vehicles (OHV), intentional killing of tortoises, and killing by cars and OHV (Doak et al. 1994). Habitat conversion to agriculture results in the loss of habitat and may lead to an increase in the predator raven population, drawdown of water table, introduction of pesticides and other toxic chemicals, and the potential introduction of invasive plants (Boarman 2002). Project activities may result in the loss of potential desert tortoise habitat through conversion, may increase habitat fragmentation, and expand urbanization into the area.

To evaluate potential Project-related impacts to MDT, CDFW recommends conducting the following evaluation of the Project area, including the following mitigation measures in the MND, and that these measures be made conditions of approval for the Project:

- CDFW recommends that a qualified biologist conduct surveys during the appropriate survey period following the protocol contained in “Preparing for any action that may occur within the range of the Mojave Desert tortoise (*Gopherus agassizii*)” (USFWS 2010) to determine the potential for desert tortoise to use the Project site and surrounding area. Survey results are advised to be submitted to both CDFW and the USFWS. Please note desert tortoise surveys are valid for one year and should be conducted within a year of the start of ground-disturbing activities.
- If desert tortoise, or their sign, are found within the Project site during preconstruction surveys or construction activities, consultation with CDFW is

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advised to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an ITP prior to any ground-disturbing activities, pursuant Fish and Game Code section 2081 subdivision (b). Alternatively, the applicant can assume presence and acquire an ITP prior to initiating Project implementation.

Burrowing Owl

Burrowing owls (BUOW) may occur within or adjacent to 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. While the Project site has been previously disturbed, review of aerial imagery indicates that there has been some element of natural recruitment and reclamation of desert habitat. Potentially significant direct impacts associated with Project 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 (Gervais et al. 2008). Therefore, Project related ground-disturbing activities 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.

To evaluate potential impacts to BUOW, CDFW recommends conducting the following evaluation of the Project area and its vicinity and implementing the following mitigation measures:

- 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.

- 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.

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

* meters (m)

Le Conte's Thrasher and Loggerhead Shrike

While the Project site has been previously disturbed, aerial imagery indicates that there has been some element of natural recruitment and reclamation of desert habitat on-site. The Project site is also adjacent to desert scrub habitat and is within the range of the of the loggerhead shrike and Le Conte's thrasher and both species have been documented to occur within the vicinity of the Project site (CDFW 2022). The Project site and surrounding areas could provide suitable nesting habitat for these species. Therefore, the Project area may be suitable for occupation, foraging, and/or colonization by these species.

Without appropriate avoidance and minimization measures for loggerhead shrike and Le Conte's thrasher potentially significant impacts associated with the Project's construction could include nest abandonment, which may result in reduced health or vigor of eggs and/or young, and/or direct mortality. Habitat loss and degradation is a primary threat to the loggerhead shrike and Le Conte's thrasher (Brooks and Temple 1990, Yosef 1996, Pruitt 2000, and Laudenslayer et al. 1992). Both species often build

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their nests in thorny vegetation, which may help keep predators away (Yosef 1996). In the absence of thorny trees or bushes, they can nest in brush piles or tumbleweeds (Yosef 1996). Impacts to desert scrub vegetation within the Project site have the potential to significantly impact local populations of these species.

To evaluate potential impacts to these species, CDFW recommends conducting the following evaluation of the Project area and its vicinity and implementing the following mitigation measures into the MND.

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation to determine if the Project site or its immediate vicinity contains suitable habitat and/or are occupied by the species mentioned above.
- CDFW recommends that Project activities be timed to avoid the normal Le Conte's thrasher breeding season (Late January through early June) and loggerhead shrike breeding season (early January through July). However, if the Project activities must take place during that time, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting Le Conte's thrasher and loggerhead shrike no more than 10 days prior to the start of implementation to evaluate presence/absence these species in proximity to Project activities and to evaluate potential Project-related impacts.
- Avoidance whenever possible is encouraged via delineation and observing a 50-foot no-disturbance buffer around nests.

Desert Kit Fox

While the Project site has been previously disturbed, a review of aerial imagery indicates that there has been some element of natural recruitment and reclamation of desert habitat on-site. In addition, the presence of Desert kit fox (DKF) den(s) has been recorded on-site and within the vicinity of the Project site (CDFW 2022). DKF populations can fluctuate over time; therefore, presence/absence in any one year is not necessarily a reliable indicator of DKF potential to occur on a site, repeat surveys may be warranted. Additionally, over time DKF may be attracted to the Project site due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. As a result, there is potential for DKF to occupy or colonize the Project site.

Without appropriate avoidance and minimization measures for DKF, potential significant impacts associated with the Project's construction could include den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals. Habitat loss and fragmentation from the rapid

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expansion of, industrial buildings, large-scale industrial solar, and wind energy development are the primary threat to DKF (Kadaba et al. 2013). The desert kit fox populations are closely connected with creosote bush scrub communities (McGrew 1979), which is present in the vicinity of the Project site. Kit foxes are also able to adapt to open habitats including creosote flats and grasslands (Rodrick and Mathews 1999). Projects, such as the one being proposed, have the expectation to promote the growth of the City of California City, resulting in a high degree of land conversion and potential habitat fragmentation. The Project site is within the range of DKF and may contain suitable habitat both on-site and within the vicinity of the Project. As a result, Project activities have the potential to significantly impact local populations of DKF.

To evaluate potential Project-related impacts to DKF, CDFW recommends conducting the following evaluation of the Project site and including the following measures in the MND:

- CDFW recommends assessing presence/absence of DKF and their dens by conducting further surveys both on, and within 200 feet of the Project site well in advance of the Project. Pre-construction surveys are also recommended, and CDFW advises conducting these surveys in all areas of potentially suitable habitat no less than 14 days and no more than 30 days prior to beginning of ground-disturbing activities.
- If dens are found during surveys, CDFW recommends implementing no-disturbance buffers, in accordance with USFWS's "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (USFWS 2011). Specifically, if DKF are found occupying atypical (i.e., manmade structure) den sites, a 50-foot no-disturbance is recommended around the occupied den structure. If potential dens are found during surveys, CDFW advises implementing a 50-foot no-disturbance buffer around these structures as well. Consultation with CDFW and implementation of a 100-foot no-disturbance buffer around dens that are used or known to have been used at any time in the past by DKF, are found during pre-construction surveys. If a natal or pupping den is found during surveys, consultation with CDFW is recommended.
- Desert kit fox (*Vulpes macrotis arsipus*) is protected under the California Code of Regulations, Chapter 5, section 460 (14 CCR § 460), which prohibits "take" of DKF for any reason.

Special Status Plants

While the Project site has been previously disturbed, a review of aerial imagery indicates that there has been some element of natural recruitment and reclamation of

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desert habitat on-site. The Project site is also adjacent to desert scrub habitat and several special-status plants have been documented to occur within the vicinity of the Project site, including Barstow woolly sunflower, Red rock poppy (CDFW 2022). While the Initial Study for the Project indicated that these species were not detected on-site, it is unclear that appropriate survey protocols were followed. Therefore, the species have the potential to be present on-site and impacted by Project related activities.

Without appropriate avoidance and minimization measures for special status plants, potential significant impacts associated with the future development of the Project site could include inability to reproduce, direct mortality, and habitat modification. The Project site may provide suitable habitat for special status plants. As a result, habitat loss and degradation resulting from ground-disturbing activities have the potential to significantly impact these special status plant species.

To evaluate potential impacts to special status plant species, CDFW recommends conducting the following evaluation of the subject parcel and surrounding areas adjacent to the Project site and implementing the following mitigation measures:

- CDFW recommends that a qualified biologist conduct a habitat assessment in advance of the 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 the Project site and surrounding areas 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 Sensitive Natural Communities” (CDFW 2018). The CDFW 2018 plant survey protocol specifically states, “*Conduct botanical field surveys in the field at the times of year when plants will be both evident and identifiable. Usually this is during flowering or fruiting. Space botanical field survey visits throughout the growing season to accurately determine what plants exist in the project area. This usually involves multiple visits to the project area (e.g. in early, mid, and late-season) to capture the floristic diversity at a level necessary to determine if special status plants are present.*” 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 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

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consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special status plant species.

- If a plant species listed pursuant to CESA or the Native Plant Protection Act is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, acquisition of an ITP pursuant to Fish and Game Code section 2081(b) would be required to comply with CESA.

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>.

Review of aerial imagery and United States Geological Survey 3D Elevation Program indicates that there are unnamed ephemeral streams within the Project area. 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(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.

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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 City of California City 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

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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 et al. 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>.

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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 City of California City. 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

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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.

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 CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

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 & Game Code, § 711.4; Pub. Resources Code, § 21089).

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CONCLUSION

CDFW appreciates the opportunity to comment on the Project to assist the City of California City 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:

96D42C58E092466...

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Attachment 1

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

**PROJECT: Hannabis Cannabis
 Mitigated Negative Declaration (MND)
 Indoor Cannabis Cultivation and Manufacturing (Project)**

Mitigation Measure	Status/Date/Initials
<i>Before Disturbing Soil or Vegetation</i>	
Mitigation Measure: MJGS	
• MJGS Surveys	
• MJGS Avoidance	
• MJGS Take Authorization	
Mitigation Measure: MDT	
• MDT Surveys	
• MDT Avoidance	
• MDT Take Authorization	
Mitigation Measure: BUOW	
• BUOW Habitat Assessment	
• BUOW Surveys	
• BUOW Passive Relocation and Mitigation	
Mitigation Measure: Le Conte's Thrasher and Loggerhead Shrike	
• Le Conte's and Loggerhead Shrike Habitat Assessment	
• Le Conte's and Loggerhead Shrike Surveys	
• Le Conte's and Loggerhead Shrike Avoidance	
Mitigation Measure: DKF	
• DKF Surveys	
• DKF Take Avoidance	
Mitigation Measure: Special Status Plants	
• Special Status Plant Habitat Assessment	

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• Special Status Plant Surveys	
• Special Status Plant Avoidance	
• Special Status Plant Take Authorization	
<i>During Construction</i>	
Mitigation Measure: MJGS	
• MJGS Avoidance	
Mitigation Measure: MDT	
• MDT Avoidance Buffer	
Mitigation Measure: BUOW	
• BUOW Avoidance Buffer	
Mitigation Measure: Special Status Plants	
• Special Status Plant Avoidance	