

October 15, 2020 Sent via e-mail

Governor's Office of Planning & Research

Oct 15 2020

Mary Blais Contract Planner City of Perris 135 North "D" St. Perris, CA 92570 STATE CLEARINGHOUSE

Cal Grow Farms Project (Project)
Initial Study and Draft Mitigated Negative Declaration (IS/MND)
SCH# 2020099015

Dear Ms. Blais:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from the City of Perris for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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, we appreciate 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.

### **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 & 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 Project and related activities that have the potential to adversely affect fish and wildlife resources.

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<sup>&</sup>lt;sup>1</sup> 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 & G. Code, § 1600 et seq.). Likewise, 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.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

### PROJECT DESCRIPTION SUMMARY

**Proponent: CIRE Holdings, LLC** 

**Objective:** The Project would develop a new facility for the indoor cultivation, processing, and packaging of cannabis and cannabis products on a 1.92-acre property in the City of Perris. The Project would construct four two-story steel buildings, each ranging in size from approximately 14,504 square foot to 16,330 square feet of floor space, with a total of approximately 61,050 square feet of floor space. Surface parking spaces would be provided adjacent to each building, with a total of 37 vehicle spaces. The Project would also construct a paved driveway approximately 595 feet in length from Malbert Street, to provide access to each lot of the Project site. The proposed driveway would terminate in a cul-de-sac at the two northernmost lots of the Project site. An onsite system for treatment and disposal of wastewater is also proposed, as well as onsite vegetated stormwater runoff collection areas and underground stormwater detention tanks to meet applicable requirements for stormwater runoff management. The Project would also include underground tanks for holding residual irrigation and fertilization (fertigation) liquids from the indoor growing of cannabis plants.

**Location:** Malbert St. and Goetz Rd. Perris, CA in Riverside County. 33° 46′ 7.41″ N 117° 13′ 48.22″ W. APNs 330-040-054, -055, -056, and -057. The parcels involved in the Project are located West of Goetz Rd. on the North side of Malbert St. To the East and the North of the parcels are industrial buildings. To the West of the parcels are a boat storage yard, train tracks, and a housing development. Major highways (Interstate 215 and Highway 74) are north of the parcel, and the San Jacinto River is in proximity south of the parcel. North of Interstate 215, the Perris Valley Channel drains to the San Jacinto River, and the San Jacinto River drains to Canyon Lake and Lake Elsinore southwest of the parcel. The Project lies within the Perris South subbasin of the San Jacinto Groundwater Basin and is located within the West San Jacinto Groundwater Management Area.

**Timeframe:** The Project anticipates construction of one of the proposed buildings in 2020 for growing and processing operations, with the remaining facilities to be constructed within approximately one to two years thereafter.

### **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist the City of Perris in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW is also concerned that potential cannabis related biological impacts were not identified and mitigated for. In addition to the sections below, CDFW has the following concerns:

- 1. Management of the vegetated stormwater runoff collection areas: CDFW is concerned about potential impacts resulting from vegetated water collection areas. These areas have the potential to create habitat that attracts wildlife and must be managed with consideration of impacts to biological resources. Maintenance activities pose concerns regarding work period/season, nesting birds, vegetation removal, and sensitive species surveys. The IS/MND should analyze these issues.
- 2. Groundwater impacts from underground holding tanks: CDFW is concerned that fertigation liquids from the underground tanks for holding residual irrigation and fertilization liquids from cannabis cultivation could leach into the groundwater and affect fish and wildlife resources. It is not clear what chemicals (pesticides, herbicides, fertilizers, and other growth enhancement aids) will be in the residual irrigation water. The IS/MND should analyze this issue.

# **Assessment of Impacts on Biological Sources**

### **Burrowing Owl**

The Project area falls within the Western Riverside County Multiple Species Habitat Conservation Plan survey area for burrowing owl. The Draft IS/MND states that "suitable burrowing habitat and potentially suitable burrows were identified within the survey area, no burrowing owl signs and no live individuals were detected" (p. 24). Note CDFW is concerned that the focused surveys did not comply with the protocol in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012) and were conducted more than a year ago. Because burrowing owl habitat was detected, preconstruction surveys are required. Preconstruction surveys should be conducted using the *Staff Report on Burrowing Owl Mitigation* (2012 or most recent version;

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline). CDFW recommends that mitigation measure BIO-1 (p. 25) in the Draft IS/MND be revised as follows:

MM BIO-1: Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, project activities shall be immediately halted. The qualified biologist shall coordinate

with USFWS, CDFW, and RCA to conduct an impact assessment to develop avoidance, minimization, and mitigation measures to be approved by CDFW prior to commencing Project activities.

Pursuant to the CEQA Guidelines, section 15097(f), CDFW has prepared a draft mitigation monitoring and reporting program (MMRP) for proposed MM BIO-1. The draft MMRP with MM BIO-1 through MM BIO-6 is enclosed as Attachment 1 at the end of this letter.

# **Nesting Birds**

The IS/MND proposes BIO-2 to mitigate potentially significant Project impacts to nesting birds. CDFW is concerned that the "active breeding season dates" (March 1 to June 30) are too short, and that the timing of preconstruction surveys (14 days prior to ground/vegetation disturbing activities) is not adequate to avoid impacts to nesting birds. CDFW recommends that mitigation measure BIO-2 (p. 25) in the Draft IS/MND be revised as follows:

MM BIO-2: Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal shall occur outside peak breeding season (typically February 1 through September 1).

### **Special Status Species**

The IS/MND provided mitigation measures for potential significant impacts to burrowing owl and nesting birds (BIO-1 and BIO-2), but did not identify potential impacts to other special status species. CDFW would like to ensure that all special status species with the potential to occur in the project area are identified. A CNDDB/BIOS query of species within a 1-mile buffer of the Project parcel returned 10 species: smooth tarplant (*Centromadia pungens* ssp. *laevis*; California Rare Plant Rank 1B.1), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*, federal endangered species and California Rare Plant Rank 1B.1), Crotch bumble bee (*Bombus crotchii*; state candidate endangered species),

Stephens' kangaroo rat (*Dipodomys stephensi*; federal endangered species and state threatened species), southern grasshopper mouse (*Onychomys torridus ramona*; SSC), thread-leaved brodiaea (*Brodiaea filifolia*; federal threatened species, state endangered species, and California Rare Plant Rank 1B.1), coast horned lizard (*Phrynosoma blainvillii*; SSC), orange-throated whiptail (*Aspidoscelis hyperythra*; CDFW Watch List), western pond turtle (*Emys marmorata*; SSC), and California glossy snake (*Arizona elegans occidentalis*; SSC).

# Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

Within the Inland Deserts Region, CDFW issued Natural Community Conservation Plan Approval and Take Authorization for the WRC MSHCP per section 2800, et seq., of the California Fish and Game Code on June 22, 2004. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit. Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the MSHCP as a result of this Project is necessary to address CEQA requirements. For additional information on the MSHCP visit: <a href="http://rctlma.org/epd/WR-MSHCP">http://rctlma.org/epd/WR-MSHCP</a>.

The proposed Project occurs within the MSHCP area and is subject to the provisions and policies of the MSHCP. To be considered a covered activity, Permittees must demonstrate that proposed actions are consistent with the MSHCP and its associated Implementing Agreement. The City of Perris is the Lead Agency and a signatory to the Implementing Agreement of the MSHCP. The Project does not fall within a Criteria Cell; however, it is located in proximity to several Criteria Cells with conservation lands and areas described for conservation, and the following MSHCP policies and procedures apply to the proposed Project (<a href="https://rctlma.org/Portals/0/mshcp/volume1/index.html">https://rctlma.org/Portals/0/mshcp/volume1/index.html</a>). After review of the MSHCP Consistency Analysis (IS/MND, Appendix B), CDFW has the following recommendations:

- Additional Survey Needs and Procedures (MSHCP, vol. 1, sect. 6.1.2): The
  Project is adjacent to a possible vernal pool which may provide habitat for
  protected species including Riverside fairy shrimp (Streptocephalus woottoni) and
  vernal pool fairy shrimp (Branchinecta lynchi). For Riverside fairy shrimp and
  vernal pool fairy shrimp, mapping of stock ponds, ephemeral pools and other
  features should be undertaken as determined appropriate by a qualified biologist.
- Additional Survey Needs and Procedures (MSHCP, vol. 1, sect. 6.3.2): The
  Project is within the required survey area for burrowing owls. See the "Burrowing
  Owl" section above for recommendations.
- Appendix C Standard Best Management Practices: The Project should follow the best management practices set forth in Appendix C of the MSHCP, Volume 1. This includes water quality best management practices to prevent runoff of toxic materials such as sediment, pesticides, fertilizers, and petroleum products.

If biological resources included in Section 6 of the MSHCP are found on-site, the City should complete a Determination of Biologically Equivalent or Superior Preservation (DBESP). The Draft IS/MND should also include an analysis of impacts to conservation lands in Criteria Cells adjacent to the Project site, which are groundwater dependent, especially during drought years. Potential drawdown or pollution of groundwater resulting from the Project should be analyzed and mitigation proposed. CDFW recommends that the City of Perris include the following mitigation measure conditioning the Project to demonstrate compliance with the MSHCP and its associated Implementing Agreement:

MM BIO-3: Prior to construction and issuance of any grading permit, the City of Perris shall demonstrate compliance with the MSHCP and its associated Implementing Agreement via a complete MSHCP Consistency Analysis and if needed a Determination of Biologically Equivalent or Superior Preservation process that shall be submitted for review and approval by the Western Riverside County Regional Conservation Authority, the U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife.

# **Cannabis-Specific Impacts on Biological Resources**

Pesticides, Including Fungicides, Herbicides, Insecticides, 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, pesticides such as rodenticides may result in secondary poisoning through ingestion of sickened animals that leave the premises or ingestion of lethally poisoned animals that are disposed of outside.) Even 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). Anticoagulant rodenticides and rodenticides that incorporate "flavorizers" that make the pesticides appetizing to a variety of species should not be used at cultivation sites. Alternatives to toxic rodenticides may be used to control pest populations at and around cultivation sites, including sanitation (removing food sources such as pet food, cleaning up

refuse, and securing garbage in sealed containers), and physical barriers (e.g., sealing holes in roofs and walls). Snap traps should not be used outdoors as they pose a hazard to nontarget wildlife. Sticky or glue traps should be avoided altogether as these pose a hazard to nontarget wildlife and result in a prolonged/inhumane death. In addition, the California Department of Pesticide Regulation (CDPR) stipulates that pesticides must certain criteria to be legal for use on cannabis. For details, visit: <a href="https://www.cdpr.ca.gov/docs/cannabis/questions.htm">https://www.cdpr.ca.gov/docs/cannabis/questions.htm</a> and <a href="https://www.cdpr.ca.gov/docs/county/cacltrs/penfltrs/penf2015/2015atch/attach1502.pdf">https://www.cdpr.ca.gov/docs/county/cacltrs/penfltrs/penf2015/2015atch/attach1502.pdf</a>.

The Draft IS/MND indicates that the Project "would involve the use of materials common to all urban development that are labeled hazardous (e.g., solvents and commercial cleansers; petroleum products; and pesticides, fertilizers, and other landscape maintenance materials)" (p. 47). CDFW recommends that the City of Perris include a mitigation measure conditioning the Project to development of a plan to avoid, minimize, and mitigate the impacts of pesticides used in cannabis cultivation. CDFW recommends inclusion of the following mitigation measure:

MM BIO-4: Prior to construction and issuance of any grading permit, CIRE Holdings, LLC shall develop a plan, to be approved by the City of Perris, with measures to avoid, minimize, or mitigate the impacts of pesticides used in cannabis cultivation, including fungicides, herbicides, insecticides, and rodenticides. The plan should include, but is not limited to, the following elements: (1) Proper use, storage, and disposal of pesticides, in accordance with manufacturers' directions and warnings. (2) Avoidance of pesticide use where toxic runoff may pass into waters of the State, including ephemeral streams. (3) Avoidance of pesticides that cannot legally be used on cannabis in the state of California, as set forth by the Department of Pesticide Regulation. (4) Avoidance of anticoagulant rodenticides and rodenticides with "flavorizers." (5) Avoidance of sticky/glue traps. (6) Inclusion of alternatives to toxic rodenticides, such as sanitation (removing food sources such as pet food, cleaning up refuse, and securing garbage in sealed containers), and physical barriers.

# **Artificial Light**

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 affect fish and wildlife significantly and adversely. 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, can disorient, entrap, and temporarily blind wildlife species that experience it

(Longcore and Rich 2004).

According to the IS/MND, Project activities include use of artificial light for nighttime function and security lighting. CDFW recommends the following mitigation measure:

MM BIO-5: Light shall not be visible outside of any structure used for cannabis cultivation. Employ blackout curtains where artificial light is used to prevent light escapement. Eliminate all nonessential 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. Ensure that lighting for cultivation activities and security purposes is shielded, cast downward, and does not spill over onto other properties or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). Use LED lighting with a correlated color temperature of 3,000 Kelvins or less, properly dispose of hazardous waste, and recycle lighting that contains toxic compounds with a qualified recycler.

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

Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may adversely impact any river, stream, or lake. The California Department of Food and Agriculture (CDFA) requires cannabis cultivators to demonstrate compliance with Fish and Game Code section 1602 prior to issuing a cultivation license (Business and Professions Code, § 26060.1). To qualify for an Annual License from CDFA, cultivators must have an LSA Agreement or written verification from CDFW that one is not needed. Cannabis cultivators may apply online for an LSA Agreement through the Environmental Permit Information Management System (EPIMS; <a href="https://epims.wildlife.ca.gov">https://epims.wildlife.ca.gov</a>). Cannabis cultivators may learn more about cannabis cultivation permitting at <a href="https://wildlife.ca.gov/Conservation/Cannabis/Permitting">https://wildlife.ca.gov/Conservation/Cannabis/Permitting</a>. CDFW recommends the following mitigation measure:

MM BIO-6: Prior to construction and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsorshould obtain a copy of a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

### **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base 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 the California Natural Diversity Database (CNDDB). The CNNDB 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: <a href="mailto:CNDDB@wildlife.ca.gov">CNDDB@wildlife.ca.gov</a>. The types of information reported to CNDDB can be found at the following link: <a href="http://www.dfg.ca.gov/biogeodata/cnddb/plants">http://www.dfg.ca.gov/biogeodata/cnddb/plants</a> and animals.asp.

#### **FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing 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 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 MND for the Cal Grow Farms Project to assist the City of Perris in identifying and mitigating Project impacts on biological resources. CDFW has assessed the MND and found that it does not adequately identify or mitigate for all impacts of this Project on biological resources. CDFW recommends that prior to the adoption of this MND, the City of Perris revise the document to include a complete assessment of impacts to biological resources on the Project parcel and adjacent parcels, as well as appropriate avoidance, minimization, and mitigation measures.

Questions regarding this letter or further coordination should be directed to Kevin Francis, Environmental Scientist at (909) 239-0895 or Kevin.Francis@wildlife.ca.gov.

Sincerely,



Scott Wilson Environmental Program Manager

Attachment 1: MMRP for CDFW-Proposed Mitigation Measures

ec: Office of Planning and Research State Clearinghouse, Sacramento state.clearinghouse@opr.ca.gov

> Kevin Francis, Environmental Scientist California Department of Fish and Wildlife kevin.francis@wildlife.ca.gov

# ATTACHMENT 1: MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Mitigation Measures	Schedule	Responsible Party
MM BIO-1: Burrowing owl surveys. Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, project activities shall be immediately halted. The qualified biologist shall coordinate with USFWS, CDFW, and RCA to conduct an impact assessment to develop avoidance, minimization, and mitigation measures to be approved by CDFW prior to commencing Project activities.	Habitat assessment: No less than 60 days prior to start of Project- related activities. Pre- construction surveys: No less than 14 days prior to start of Project activities and within 24 hours prior to ground disturbance.	CIRÉ Holdings, LLC
MM BIO-2: Nesting bird surveys. Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal shall occur outside peak breeding season (typically February 1 through September 1).	No more than three (3) days prior to vegetation clearing or ground disturbance activities.	CIRE Holdings, LLC

MM BIO-3: MSHCP Compliance: Prior to construction and	Prior to	City of Perris
issuance of any grading permit, the City of Perris shall demonstrate compliance with the MSHCP and its associated Implementing Agreement via a complete MSHCP Consistency Analysis and if needed a Determination of Biologically Equivalent or Superior Preservation process that shall be submitted for review and approx by the Western Riverside County Regional Conservation Authority the U.S. Fish and Wildlife Service, and California Department of Fi and Wildlife.	construction and issuance of any grading yal permit.	
MM BIO-4: Pesticide Management Plan. Prior to construction and issuance of any grading permit, CIRE Holdings, LLC shall develop plan, to be approved by the City of Perris, shall develop a plan with measures to avoid, minimize, or mitigate the impacts of pesticides used in cannabis cultivation, including fungicides, herbicides, insecticides, and rodenticides. The plan should include, but is not limited to, the following elements: (1) Proper use, storage, and disposal of pesticides, in accordance with manufacturers' direction and warnings. (2) Avoidance of pesticide use where toxic runoff mapass into waters of the State, including ephemeral streams. (3) Avoidance of pesticides that cannot legally be used on cannabis in the state of California, as set forth by the Department of Pesticide Regulation. (4) Avoidance of anticoagulant rodenticides and rodenticides with "flavorizers." (5) Avoidance of sticky/glue traps. (6) Inclusion of alternatives to toxic rodenticides, such as sanitation (removing food sources such as pet food, cleaning up refuse, and securing garbage in sealed containers), and physical barriers.	a construction and issuance of any grading permit.	CIRE Holdings, LLC
MM BIO-5: Artificial Light Management: Light shall not be visible outside of any structure used for cannabis cultivation. Employ blackout curtains where artificial light is used to prevent light escapement. Eliminate all nonessential 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 specie are most active. Ensure that lighting for cultivation activities and security purposes is shielded, cast downward, and does not spill over onto other properties or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/Use LED lighting with a correlated color temperature of 3,000 Kelvins or less, properly dispose of hazardous waste, and recycle lighting that contains toxic compounds with a qualified recycler.	project activities.	CIRE Holdings, LLC
MM BIO-6: Compliance with CDFW LSA Program: Prior to construction and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsor should obtain a copy of a CDFN executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associate with the Project.		CIRE Holdings, LLC

#### References

- Baldwin, D. H., J. A. Spromberg, T. K. Collier, and N. L. Scholz. 2009. A fish of many scales: Extrapolating sublethal pesticide exposures to the productivity of wild salmon populations. Ecological Applications 19:2004–2015.
- Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. Ecology 58:98–108.
- Berny, P. 2007. Pesticides and the intoxication of wild animals. Journal of Veterinary Pharmacology and Therapeutics 30:93–100.
- California Department of Fish and Game. (CDFG). 2012. Staff report on burrowing owl mitigation. State of California, Natural Resources Agency. Available for download at: <a href="https://www.dfg.ca.gov/wildlife/nongame/survey\_monitor.html">https://www.dfg.ca.gov/wildlife/nongame/survey\_monitor.html</a>
- Fleischli, M. A., J. C. Franson, N. J. Thomas, D. L. Finley, and W. Riley, Jr. 2004. Avian mortality events in the United States caused by anticholinesterase pesticides: A retrospective summary of national wildlife health center records from 1980 to 2000. Archives of Environmental Contamination and Toxicology 46:542–550.
- Li, Q., and T. Kawada. 2006. The mechanism of organophosphorus pesticide-induced inhibition of cytolytic activity of killer cells. Cellular & Molecular Immunology 3:171–178.
- Longcore, T., and C. Rich. 2004. Ecological light pollution. Frontiers in Ecology and the Environment 2:191–198.
- Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. Condor 108:130–139.
- O'Hare, M., D. L. Sanchez, and P. Alstone. 2013. Environmental risks and opportunities in cannabis cultivation. BOETC Analysis Corp. University of California, Berkeley, CA, USA.
- Pimentel, D. 2005. Environmental and economic costs of the application of pesticides primarily in the United States. Environment, Development and Sustainability 7:229–252.
- Relyea, R. A., and N. Diecks. 2008. An unforeseen chain of events: Lethal effects of pesticides on frogs at sublethal concentrations. Ecological Applications 18:1728–1742.
- Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology 19:1123–1127.