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DEPARTMENT OF FISH AND WILDLIFE
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February 9, 2021

Mr. Justin Sauder
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550
JSauder@cityofpalmdale.org

Subject: Site Plan Review 20-009 Project, Mitigated Negative Declaration, SCH #2021010230, City of Palmdale, Los Angeles County

Dear Mr. Sauder:

The California Department of Fish and Wildlife (CDFW) has reviewed the Mitigated Negative Declaration (MND) from the City of Palmdale (City; Lead Agency) for the Site Plan Review 20-009 (Project). Review of the MND included the following appendices: *Appendix C Biological Resources Technical Report* and *Appendix D Jurisdictional Delineation*.

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's 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, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (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 State fish and wildlife resources.

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, including 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.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Project Description and Summary

Objective: The Project proposes to construct, operate, and eventually decommission a solar energy installation within a 140-acre undeveloped site. The Project would tie into the existing Southern California Edison (SCE) grid north of the Project site. The Project would install a single-axis tracker system with a total system size of 25 megawatts. A single-axis tracker system would allow the solar panels one axis of movement that is usually aligned north and south and allows the panels to arc east to west and track the sun. Associated infrastructure would include paved and unpaved roads for site access, a chain link perimeter security fence, a new switchyard, and an underground distribution line to the point of interconnection with the SCE grid. The distribution line would be bored under an unnamed drainage to a depth of four feet beneath the bed of the drainage to prevent scour form stormwater flow. The distribution line would be buried in a trench. The Project would include construction of two retention basins for on-site stormwater management in the northeastern and northwest corners of the site.

The estimated lifespan of the Project is 20 years. If it is determined that the Project is no longer need, the Project would be decommissioned, and all equipment would be removed. Grading of the Project site would be minimized to the greatest extent practical. Existing site vegetation will be cut and crushed to preserve the root ball. The Project site would be restored to preconstruction conditions where feasible.

Location: The Project is in the City of Palmdale between Blackbird Lane and East Avenue P, and between 10th Street East and 15th Street East. The Project is located at Lockheed Martin's Plant 10, with the U.S. Air Force Plant 42 to the north and east, undeveloped land to the west, and industrial development to the south.

Comments and Recommendations

CDFW corresponded with Burns and McDonnell regarding the Project in December 2020. During that correspondence, CDFW received an additional document, *Protected Plant Preservation Plan*, prepared for Burns and McDonnell by RCA Associates, Inc. (May 28, 2020). Based on the correspondence, *Protected Plant Preservation Plan*, and CEQA documents for review, CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. CDFW recommends the measures or revisions below be included in a science-based monitoring program that contains adaptive management strategies as part of the Project's CEQA mitigation, monitoring and reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

Specific Comments

Comment #1: Impacts to Western Joshua Tree

Issue: The Project would result in "take" or adverse impacts to western Joshua trees (*Yucca brevifolia*), a CESA-listed candidate species.

Specific impacts: The Project as proposed would "require the removal of Joshua trees that are scattered through the Project area." Additionally, the Project could impact the seed bank and the yucca moth (*Tegeticula synthetica*).

Why impacts would occur: The Project would remove western Joshua trees scattered through the Project site. The Project site may also impact Joshua tree seeds buried by abiotic processes and seed caches made by rodents. Western Joshua trees could be permanently extirpated from the Project site. Local extirpation of western Joshua trees may also occur in the absence of a seed source that could be wind or rodent-dispersed to adjacent areas. Lastly, the Project may disturb soils that could support the yucca moth's pupal stage. After feeding on fruits, yucca moth caterpillars drop onto the soil and retreat to pupate underground (Baker 1986; Bogler 1995). The yucca moth is the sole pollinator of western Joshua trees. Fruit and seed production of western Joshua trees fluctuate yearly depending on factors that include availability of pollinators (Sirchia et al. 2018). Regional collapses of yucca moth populations have led to complete failure of fruit production in the closely related banana yucca (*Y. baccatta*) in the Mojave Desert (St. Clair and Hoines 2018).

Evidence impacts would be significant: The western Joshua tree is a geographically and morphologically distinct species from the eastern Joshua tree (*Y. jaegeriana*) (Sirchia et al. 2018). The western Joshua tree has specific habitat requirements, which in turn restricts the range of the species (Center for Biological Diversity 2019). Currently, western Joshua trees are found in Joshua Tree National Park; northern slopes of the San Bernardino and San Gabriel Mountains; Antelope Valley; eastern flanks of the southern Sierra Nevada mountains; and the edges of Death Valley National Park (Center for Biological Diversity 2019). Recent studies have indicated that the species' range is contracting at lower elevations; recruitment is limited; and mortality is increasing. These trends are driven by the collective pressures of habitat loss; increased fire frequency and intensity; and poorly regulated ground disturbing activities; and climate change (Center for Biological Diversity 2019). One-third of suitable habitat for the western Joshua tree in California may be lost due to development over the coming decades, including over 40 percent of habitat in the species' southern California region. At this rate, western Joshua tree may be extirpated from all or most of California by the end of the century (Center for Biological Diversity 2019).

On November 1, 2019, CDFW accepted a petition for western Joshua tree as a threatened species for listing under the CESA (CDFW 2020a). CDFW determined that listing "may be warranted" and advancing the species to the candidacy stage of the CESA listing process (CDFW 2020a). On September 22, 2020, the California Fish and Game Commission determined that listing western Joshua tree as threatened under CESA may be warranted (CDFW 2020b). As a CESA candidate species, western Joshua tree is granted full protection of a threatened species under CESA.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW concurs with the Project's proposed Mitigation Measure BIO-1, requiring consultation with CDFW pursuant to Fish and Game Code section 2080 *et seq.* If "take" or adverse impacts to western Joshua trees cannot be avoided during Project activities or over the life of the Project, the City must consult CDFW to determine if a CESA Incidental Take Permit (ITP) is required.

CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). Consequently, if the Project, Project construction, or any Project-related activity for the duration of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends the City seek appropriate take authorization under CESA prior to implementing or continuing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA permit. The City should consult with CDFW to obtain additional Joshua tree survey requirements.

Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP. Accordingly, please see **Mitigation Measures #2 through #5** below. However, it is worth noting that mitigation for impacts to CESA-listed species proposed in a Project's CEQA document may not necessarily satisfy mitigation required to obtain a CESA ITP.

Mitigation Measure #2: CDFW recommends the City provide a detailed Joshua tree survey as part of the final environmental document. At a minimum, the survey and subsequent survey report/impact assessment should provide the following:

1) A map showing the Project site, all areas subject to Project-related ground-disturbing activities and vegetation removal, and survey area;
2) A map showing the location of each individual western Joshua tree;
3) A table listing each individual western Joshua tree and the corresponding tree's approximate height and impact (i.e., removed, preserved-in-place);
4) A map showing the alliance and/or association-based plant community following the Manual of California Vegetation (MCV), second edition (Sawyer et al. 2009); and,
5) Photographs of the Project site, including a minimum two photographs per acre depicting different aspects, and a photograph documenting each western Joshua tree.

Mitigation Measure #3: CDFW recommends the City avoid impacts to western Joshua tree to the greatest extent feasible. Based on the *Protected Plant Preservation Plan*, the Project may avoid western Joshua trees on the northwestern corner of the Project site, west of the unnamed drainage. CDFW recommends the City, in consultation with a qualified botanist, develop a robust avoidance plan. An avoidance plant should include robust, enforceable, and feasible measures to protect any western Joshua trees to be preserved on site. At a minimum, a buffer should be established to protect the tree's dripline plus no less than 5 feet from drip line. Temporary fencing, signage, flagging, and other demarcations should be established to prevent impacts to the tree and buffered area for the duration of the Project.

Mitigation Measure #4: CDFW recommends the City provide compensatory mitigation for unavoidable Project impacts to western Joshua trees. CDFW recommends the City identify an appropriate site within the City of Palmdale to preserve western Joshua trees in perpetuity. The number of trees within the preservation site should range from 2:1 to 10:1 of the number of trees impacted by the Project. Mitigation should be higher if the Project will impact Joshua trees that are reproducing sexually (i.e., Joshua tree woodland with recruitment) or impact Joshua trees at higher elevation areas (>2,400 feet) where Joshua trees are projected to best be able to survive climate change-related impacts. Mitigation should be even higher if impacts satisfying both criteria would occur.

An appropriate mitigation site should at minimum:

1) Have Joshua trees of similar density, abundance and age structure, and include flowering Joshua trees;
2) Support Joshua tree woodland habitat of similar native plant species composition, density, structure, and function to habitat that was impacted;
3) Support nursery plants for Joshua tree recruits (i.e., seedlings/juveniles); and,
4) Not be within 500 meters of a road (if feasible) or OHV activity.

A mitigation plan should provide the location of the mitigation lands and provide an analysis and discussion as to why those mitigation lands are appropriate and adequate to serve as mitigation.

Mitigation Measure #5: The mitigation lands should be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity that has been approved to hold and manage mitigation lands pursuant to Assembly Bill 1094 (2012). Assembly Bill 1094 amended Government Code sections 65965-65968. Under Government Code section 65967(c), the lead agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves. An appropriate non-wasting endowment should be provided for the long-term management of mitigation lands. A mitigation plan should include measures to protect the targeted habitat values in perpetuity from direct and indirect negative impacts. Issues that should be addressed include, but are not limited to the following: protection from any future development and zone changes; restrictions on access; proposed land dedications; control of illegal dumping; water pollution; and, increased human intrusion. A conservation easement and endowment funds should be fully acquired, established, transferred, or otherwise executed prior to the City's issuance of a development permit.

Comment #2: Lake and Streambed Alteration (LSA)

Issue: CDFW is concerned that the Project has not proposed mitigation for impacts to an unnamed drainage.

Specific impacts: Appendix D describes the unnamed drainage as "riverine streambed habitat that is characterized by intermittent streamflow that occurs only part of the year. Intermittent flooding may result in surface water flow within the drainage." The Project may impact the unnamed drainage.

Why impacts would occur: The Project includes construction of an underground distribution line. The Project proposes to bore four feet beneath the unnamed drainage to construct the distribution line. The MND concludes that boring under the unnamed drainage would "avoid affecting jurisdictional water and therefore, a less than significant impact to the drainage would occur." However, CDFW is concerned that impacts to the unnamed drainage could still occur. The MND does not provide information to demonstrate that boring four feet beneath the unnamed drainage would avoid impacting the drainage. Boring under the unnamed drainage could lead to erosion or subsidence. Land subsidence could be more likely to occur considering the Project site generally consists of loose, fine to coarse grained gravelly silty sand up to 5 feet below the ground surface. Therefore, construction of the distribution line could temporarily or permanently alter or impair the unnamed drainage.

Other Project installations could impact the unnamed drainage. Construction of a retention basin for on-site stormwater management in the northeastern corner of the site could alter hydrologic processes. Placing the Project's staging and construction trailer and parking areas immediately adjacent to the unnamed drainage could increase erosion, sediment input, and stream bank erosion. Installation of the perimeter security fence where it runs parallel to the unnamed drainage could also result in erosion, sediment input, and stream bank erosion.

Evidence impacts would be significant: Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW prior to beginning any activity that may do one or more of the following:

- Divert or obstruct the natural flow of any river, stream, or lake;
- Change the bed, channel, or bank of any river, stream, or lake;
- Use material from any river, stream, or lake; or
- Deposit or dispose of material into any river, stream, or lake.

The Project may impact streams, which absent specific mitigation, could result in substantial erosion or siltation on site. Impacts both upstream and downstream of the Project site could occur where there is hydrologic connectivity.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW has concluded that the Project may result in the alteration of streams. As such, the Project applicant (or "entity") must provide notification to CDFW pursuant to Fish and Game Code, section 1600 *et seq*. Based on this notification and other information, CDFW determines whether an LSA Agreement with the applicant is required prior to conducting the proposed activities. Please visit CDFW's Lake and Streambed Alteration Program webpage to for information about LSA Notification and online submittal through the Environmental Permit Information Management System (EPIMS) Permitting Portal (CDFW 2021a).

Mitigation Measure #2: CDFW recommends the LSA Notification include a hydrology report to evaluate whether the Project would alter, divert, or impair stream flow and alignment. The hydrology report should include a scour analysis to demonstrate that stream banks and stream bed would not erode under different storm events for proposed conditions. The hydrology report should include an analysis as to whether the placement and installation of staging areas, parking areas, and security fencing would impact the unnamed drainage. Also, CDFW requests a hydrological evaluation of the 200, 100, 50, 25, 10, 5, and 2-year frequency storm event for

existing and proposed conditions.

Mitigation Measure #3: To avoid impacts to the unnamed drainage, CDFW recommends the City relocate the Project's staging area and construction trailer and parking away from the unnamed drainage. If no alternative locations exist, the City should provide an adequate setback of no less than 150 feet measured from the bank of the unnamed drainage. Temporary fencing, signage, and other demarcations should be established to prevent any vehicle or foot traffic from entering the protected area for the duration of the Project. Also, CDFW recommends the security fencing be installed no less than 150 feet away from the bank of the unnamed drainage.

Mitigation Measure #4: CDFW recommends the City identify compensatory mitigation that is commensurate to the impacts to the unnamed drainage. Mitigation should occur where a stream supports desert plant communities impacted by the Project, specifically Joshua tree woodland. Mitigation should occur within the City of Palmdale or Antelope Valley.

Recommendation: CDFW's issuance of an LSA Agreement for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document from the City for the Project. To minimize additional requirements by CDFW pursuant to Fish and Game Code section 1600 *et seq*. and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement.

To compensate for any on- and off-site impacts to aquatic and riparian resources, additional mitigation conditioned in any LSA Agreement may include the following: erosion and pollution control measures, avoidance of resources, protective measures for downstream resources, on- and/or off-site habitat creation, enhancement or restoration, and/or protection, and management of mitigation lands in perpetuity.

Comment #3: Impacts to Sensitive Plant Communities

Issue: CDFW is concerned that the Project may result in impacts to sensitive plant communities.

Specific impacts: The Project may result in temporal or permanent loss of sensitive plant communities.

Why impacts would occur: The Project as proposed may impact sensitive plant communities not previously identified. The Project site supports Joshua trees. The Joshua tree woodland alliance is a sensitive plant community with a State rarity rank of 3.2 (CDFW 2020c; Sawyer et al. 2009). Some Joshua tree woodland associations have a State rarity rank of 3. The Project site supports other desert plant species that could comprise of other sensitive plant communities. This includes winterfat (*Krascheninnikovia lanata*), which is present in the Project site. Winterfat scrubland has a State rarity rank of S3. Temporal or permanent loss of sensitive plant communities could occur as a result of Project construction and activities.

Evidence impacts would be significant: Appendix C does not provide a map of plant communities. Therefore, the MND has not adequately disclosed whether sensitive plant

communities may be impacted. CDFW considers plant communities, alliances, and associations with a State ranking of S1, S2, and S3 as sensitive and declining at the local and regional level. An S3 ranking indicates there are 21 to 100 viable occurrences of this community in existence in California, S2 has six to 20 occurrences, and S1 has fewer than six viable occurrences (Sawyer et al. 2009). Additionally, plant communities with an additional rank threat of 0.1 or 0.2 are considered very threatened or threatened, respectively.

The Project has proposed transplanting of natural desert vegetation through mitigation measure BIO-5 for impacts to natural desert vegetation. However, CDFW generally does not support the use of translocation, transplantation, or salvaging plants as the primary mitigation strategy for unavoidable impacts to plants composing a sensitive plant community. Studies have shown that these efforts are experimental and the outcome unreliable (CNPS 1998; Fahselt 2007; Fiedler 1991; Godefroid 2010). Transplantation to mitigate for impacts to sensitive plant communities may be unsuccessful when mitigation does not account for abiotic and biotic components of a plant community. Abiotic variables such as hydrologic regime, soil type, microclimate, slope, aspect, and elevation determine where a plant community occurs. Plant communities are not merely plants but also consists of pollinators and microscopic biota such as detritovores, cyanobacteria, lichens, algae, and microfungi. Abiotic and biotic variables are rarely considered during mitigation site selection or when developing a conservation plan. This may result in a project never being able to replace the plant community that was impacted. Lastly, transplanting or establishing plants in arid environments could be unsuccessful without sufficient investment to the restoration site (Edwards et al. 2000; Rowe et al. 2020).

Impacts sensitive plant communities should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to sensitive plant species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species by CDFW.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW recommends the City retain a qualified botanist to map plant communities at the alliance/association level using the Manual of California Vegetation (Sawyer et al. 2009). Also, CDFW recommends an updated and thorough floristic-based assessment of plant communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. The MCV alliance or association community names for all plant communities on the Project site should be provided. All plant communities should be mapped regardless of level of disturbance so long as the vegetation community meets the alliance/association criteria.

Mitigation Measure #2: If sensitive plant communities are identified and impacts are unavoidable, the City should mitigate for temporal and permanent loss of S1, S2, and S3 sensitive plant communities, including communities with additional threat rank of 0.1 or 0.2. At a minimum, mitigation should be no less than 3:1 in consideration of plant community rarity and potential attrition, uncertainties, and failures associated with transplanting or establishing plant species in arid environments. Mitigation should increase based on the rarity of the plant community impacted. Mitigation should occur within the same watershed.

Recommendation #1: In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish & G. Code, § 1940). This standard complies with the National Vegetation Classification System which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the MCV. Through this new vegetation classification system, CDFW only tracks Sensitive Natural Communities and their respective rankings using the MCV Alliance and Association names for vegetation communities.

Recommendation #2: CDFW recommends appending results from plant community mapping to the final environmental document.

Additional Recommendations

Burrowing Owls. Mitigation for potential impacts to burrowing owls described in the MND's Mitigation Measure BIO-2 and BIO-3 should adhere to CDFW's March 7, 2012, Staff Report on Burrowing Owl Mitigation (CDFW 2012).

Scientific Collection Permit. The Project may require capture, handling, and relocation of wildlife. Pursuant to the California Code of Regulations, title 14, section 650, the City/qualified biologist must obtain appropriate handling permits to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. Please visit CDFW's Scientific Collection Permits webpage for information (CDFW 2021b). An LSA Agreement may provide similar take or possession of species as described in the conditions of the agreement [see Comment #2: Lake and Streambed Alteration (LSA)].

CDFW has the authority to issue permits for the take or possession of wildlife, including mammals; birds, nests, and eggs; reptiles, amphibians, fish, plants; and invertebrates (Fish & G. Code, §§ 1002, 1002.5, 1003). Effective October 1, 2018, a Scientific Collecting Permit is required to monitor project impacts on wildlife resources, as required by environmental documents, permits, or other legal authorizations; and, to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with otherwise lawful activities (Cal. Code Regs., tit. 14, § 650).

Move Out of Harm's Way. The proposed Project is anticipated to result in clearing of habitat that support small mammals and reptiles. CDFW recommends a qualified biological monitor be on site during initial ground disturbing activities and vegetation removal. The qualified biological monitor should move wildlife of low mobility out of harm's way to avoid wildlife injury or mortality. Wildlife should be allowed to move away on its own (non-invasive, passive relocation) or relocated to suitable habitat adjacent to the Project area. No wildlife should be enclosed inside any work zone or otherwise impacted by Project-related fencing. Safe and suitable wildlife relocation areas should be identified by a qualified biological monitor prior to ground disturbing activities and vegetation removal.

Construction Fencing. CDFW recommends that any fencing used during and after the Project be constructed with materials that are not harmful to wildlife. Prohibited materials should include, but are not limited to, spikes, glass, razor, or barbed wire. Use of chain link and steel stake fence should be avoided or minimized as this type of fencing can injure wildlife or create barriers to wildlife dispersal. All hollow posts and pipes should be capped to prevent wildlife entrapment and mortality. These structures mimic the natural cavities preferred by various bird

species and other wildlife for shelter, nesting, and roosting. Raptor's talons can become entrapped within the bolt holes of metal fence stakes resulting in mortality. Metal fence stakes used on the Project site should be plugged with bolts or other plugging materials to avoid this hazard. Fences should be installed in a manner that excludes any wildlife from entering the work zone (i.e., embedded fence such that wildlife cannot enter from under the fence). Fences should not have any slack that may cause wildlife entanglement.

Rodenticides. CDFW recommends that rodenticides and second-generation anticoagulant rodenticides be prohibited both during and over the life of the Project.

Data. CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database [i.e., California Natural Diversity Database (CNDDB)] which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species detected by completing and submitting CNDDB Field Survey Forms (CDFW 2021c). The City should ensure the data has been properly submitted, with all data fields applicable filled out, prior to finalizing/adopting the environmental document. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred. The City should provide CDFW with confirmation of data submittal.

Mitigation and Monitoring Reporting Plan. CDFW recommends the City update the Project's proposed Biological Resources Mitigation Measures and condition the environmental document to include mitigation measures recommended in this letter. CDFW provides comments to assist the City in developing mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). The City is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code section 21081.6(a)(1), CDFW has provided the City with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment A).

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 City of Palmdale 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

We appreciate the opportunity to comment on the Project to assist the City of Palmdale in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the City of Palmdale has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines, § 15073(e)]. If you have any questions or comments regarding this letter, please contact Ruby Kwan-Davis, Senior Environmental Scientist (Specialist), at Ruby.Kwan-Davis@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

Attachment A: Draft Mitigation and Monitoring Reporting Plan

CDFW recommends the following language to be incorporated into a future environmental document for the Project.

Biological Resources (BIO)			
Mitigation Measure (MM) or Recommendation (REC)		**Timing**	**Responsible Party**
MM-BIO-1-Impacts to Joshua tree-CESA ITP	The City shall notify CDFW for take or adverse impacts to Joshua trees and consult with CDFW to determine if a CESA Incidental take Permit is required. The City shall consult with CDFW to obtain additional Joshua tree survey requirements.	Prior to issuance of development permit	City of Palmdale (City)/Project Applicant
MM-BIO-2-Impacts to Joshua tree-survey and impact assessment	The City shall provide a detailed Joshua tree survey as part of the final environmental document. At a minimum, the survey and subsequent survey report/impact assessment shall include the following: 1) A map showing the Project site, all areas subject to Project-related ground-disturbing activities and vegetation removal, and survey area; 2) A map showing the location of each individual western Joshua tree; 3) A table listing each individual western Joshua tree and the corresponding tree's approximate height and impact (i.e., removed, preserved-in-place); 4) A map showing the alliance and/or association-based plant community following the Manual of California Vegetation second edition; and, Photographs of the Project site, including a minimum two photographs per acre depicting different aspects, and a photograph documenting each western Joshua tree.	Prior to issuance of development permit	City/Project Applicant

MM-BIO-3-Impacts to Joshua tree-avoidance plan	The City shall avoid impacts to western Joshua tree to the greatest extent feasible. The City, in consultation with a qualified botanist, shall develop a robust avoidance plan. An avoidance plant shall include robust, enforceable, and feasible measures to protect any western Joshua trees to be preserved on site. At a minimum, a buffer shall be established to protect the tree's dripline plus no less than 5 feet from drip line. Temporary fencing, signage, flagging, and other demarcations shall be established to prevent impacts to the tree and buffered area for the duration of the Project.	Prior to issuance of development permit	City/Project Applicant
MM-BIO-4-Impacts to Joshua tree-compensatory mitigation	The City shall provide compensatory mitigation for unavoidable Project impacts to western Joshua trees. The City shall identify an appropriate site within the City of Palmdale to preserve western Joshua trees in perpetuity. The number of trees within the preservation site shall range from 2:1 to 10:1 of the number of trees impacted by the Project. Mitigation shall be higher if the Project will impact Joshua trees that are reproducing sexually (i.e., Joshua tree woodland with recruitment) or impact Joshua trees at higher elevation areas (> 2,400 feet) where Joshua trees are projected to best be able to survive climate change-related impacts. Mitigation shall be even higher if impacts satisfying both criteria would occur. An appropriate mitigation site shall at minimum: 1) Have Joshua trees of similar density, abundance and age structure, and include flowering Joshua trees; 2) Support Joshua tree woodland habitat of similar native plant species composition, density, structure, and function to habitat that was impacted; 3) Support nursery plants for Joshua tree recruits (i.e., seedlings/juveniles); and, 4) Not be within 500 meters of a road (if feasible) or OHV activity.	Prior to issuance of development permit	City/Project Applicant

	A mitigation plan shall provide the location of the mitigation lands and provide an analysis and discussion as to why those mitigation lands are appropriate and adequate to serve as mitigation.		
MM-BIO-5-Impacts to Joshua tree-compensatory mitigation	The mitigation lands shall be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity that has been approved to hold and manage mitigation lands pursuant to Assembly Bill 1094 (2012). An appropriate non-wasting endowment shall be provided for the long-term management of mitigation lands. A mitigation plan shall include measures to protect the targeted habitat values in perpetuity from direct and indirect negative impacts. Issues that shall be addressed include, but are not limited to the following: protection from any future development and zone changes; restrictions on access; proposed land dedications; control of illegal dumping; water pollution; and, increased human intrusion. A conservation easement and endowment funds shall be fully acquired, established, transferred, or otherwise executed prior to the City's issuance of a development permit.	Prior to finalizing/ adopting CEQA document	City/Project Applicant
MM-BIO-6-Impacts to streams-Lake and Streambed Alteration Notification	The City shall notify CDFW pursuant to Fish and Game Code, section 1600 *et seq*. (Lake and Streambed Alteration Agreement).	Prior to issuance of development permit	City/Project Applicant
MM-BIO-7-Impacts to streams-Lake and Streambed Alteration Notification	Notification shall include a hydrology report to evaluate whether the Project would alter, divert, or impair stream flow and alignment. The hydrology report shall include a scour analysis to demonstrate that stream banks and stream bed would not erode under different storm events for proposed conditions. The hydrology report shall include an analysis as to whether the placement and installation of staging areas, parking areas, and security fencing would impact the unnamed drainage. The City shall also provide a hydrological	Prior to issuance of development permit	City/Project Applicant

	evaluation of the 200, 100, 50, 25, 10, 5, and 2-year frequency storm event for existing and proposed conditions.		
MM-BIO-8-Impacts to streams-avoidance	To avoid impacts to the unnamed drainage, the City shall relocate the Project's staging area and construction trailer and parking away from the unnamed drainage. If no alternative locations exist, the City shall provide an adequate setback of no less than 150 feet measured from the bank of the unnamed drainage. Temporary fencing, signage, and other demarcations shall be established to prevent any vehicle or foot traffic from entering the protected area for the duration of the Project. Also, security fencing shall be installed no less than 150 feet away from the bank of the unnamed drainage.	Prior to Project construction and activities	City/Project Applicant
MM-BIO-9-Impacts to streams-compensatory mitigation	The City shall identify compensatory mitigation that is commensurate to the impacts to the unnamed drainage. Mitigation shall occur where a stream supports desert plant communities impacted by the Project, specifically Joshua tree woodland. Mitigation shall occur within the City of Palmdale or Antelope Valley.	Prior to issuance of development permit	City/Project Applicant
MM-BIO-10-Impacts to sensitive plant communities-mapping	The City shall retain a qualified botanist to map plant communities at the alliance/association level using the Manual of California Vegetation (MCV). The qualified botanist shall prepared an updated and thorough floristic-based assessment of plant communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.	Prior to issuance of development permit	City/Project Applicant
MM-BIO-11-Impacts to sensitive plant communities-compensatory mitigation	If the Project will have unavoidable impacts on sensitive plant communities, the City shall mitigate for temporal and permanent loss of S1, S2, and S3 sensitive plant communities, including communities with additional threat rank of 0.1 or 0.2. Mitigation shall be no less than 3:1. Mitigation shall increase based on the rarity of the plant community impacted. Mitigation shall occur within the same watershed.	Prior to issuance of development permit	City/Project Applicant
REC-1-Impacts to streams-Lake	CDFW's issuance of an LSA Agreement for a Project that is subject to CEQA will require CEQA compliance actions by CDFW	Prior to issuance of	City/Project Applicant

and Streambed Alteration Notification	as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document from the City for the Project. To minimize additional requirements by CDFW pursuant to Fish and Game Code section 1600 *et seq*. and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement. To compensate for any on- and off-site impacts to aquatic and riparian resources, additional mitigation conditioned in any LSA Agreement may include the following: erosion and pollution control measures, avoidance of resources, protective measures for downstream resources, on- and/or off-site habitat creation, enhancement or restoration, and/or protection, and management of mitigation lands in perpetuity.	development permit	
REC-2-Impacts to sensitive plant communities-mapping	In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish & G. Code, § 1940). This standard complies with the National Vegetation Classification System which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the MCV. Through this new vegetation classification system, CDFW only tracks Sensitive Natural Communities and their respective rankings using the MCV Alliance and Association names for vegetation communities.	Prior to issuance of development permit	City/Project Applicant
REC-3-Impacts to sensitive plant communities-mapping	CDFW recommends appending results from plant community mapping to the final environmental document.	Prior to finalizing CEQA document	City/Project Applicant

REC-4-Impacts to burrowing owl	Mitigation for potential impacts to burrowing owls should adhere to CDFW's March 7, 2012, Staff Report on Burrowing Owl Mitigation	Prior to Project ground disturbing activities	City/Project Applicant
REC-5-Scientific Collection Permit	Pursuant to the California Code of Regulations, title 14, section 650, the City/qualified biologist must obtain appropriate handling permits to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. An LSA Agreement may provide similar take or possession of species as described in the conditions of the agreement.	Prior to Project ground disturbing activities	City/Project Applicant
REC-6-Move Out of Harm's Way	A qualified biological monitor should be on site during initial ground disturbing activities and vegetation removal. The qualified biological monitor should move wildlife of low mobility out of harm's way to avoid wildlife injury or mortality. Wildlife should be allowed to move away on its own (non-invasive, passive relocation) or relocated to suitable habitat adjacent to the Project area. No wildlife should be enclosed inside any work zone or otherwise impacted by Project-related fencing. Safe and suitable wildlife relocation areas should be identified by a qualified biological monitor prior to ground disturbing activities and vegetation removal.	Prior to/During Project ground disturbing activities	City/Project Applicant
REC-7-Construction Fencing	Any fencing used during and after the Project should be constructed with materials that are not harmful to wildlife. Prohibited materials should include, but are not limited to, spikes, glass, razor, or barbed wire. Use of chain link and steel stake fence should be avoided or minimized. All hollow posts and pipes should be capped to prevent wildlife entrapment and mortality. Metal fence stakes used on the Project site should be plugged with bolts or other plugging materials to avoid this hazard. Fences should be installed in a manner that excludes any wildlife from entering the work zone (i.e., embedded fence such that wildlife	Prior to/During/ After Project construction and activities	City/Project Applicant

	cannot enter from under the fence). Fences should not have any slack that may cause wildlife entanglement.		
REC-8-Rodenticides	Rodenticides and second-generation anticoagulant rodenticides should be prohibited both during and over the life of the Project.	Prior to/During/ After Project construction and activities	City/Project Applicant
REC-9-Data	The City should ensure sensitive and special status species data has been properly submitted to the California Natural Diversity Database with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred. The City should provide CDFW with confirmation of data submittal.	Prior to finalizing/ adopting CEQA document	City/Project Applicant
REC-10-Mitigation and Monitoring Reporting Plan	The City should update the Project's proposed Biological Resources Mitigation Measures and condition the environmental document to include mitigation measures recommended in this letter. The City is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures.	Prior to finalizing/ adopting CEQA document	City/Project Applicant