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June 22, 2026

Jerry Park
Sacramento Municipal Utility District
Environmental Services Department
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Subject: Twin Cities Solar and Battery Energy Storage System Project
Notice of Preparation
SCH No. 2026051027

Dear Jerry Park:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Request for Comments from Sacramento Municipal Utility District (SMUD) for the Twin Cities Solar and Battery Energy Storage System Project (Project) in Sacramento County pursuant the California Environmental Quality Act (CEQA) statute and 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, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise 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 provides, 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.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) The Project may be subject to CDFW's lake and

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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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.), related authorization as provided by the Fish and Game Code will be required. CDFW also administers the Native Plant Protection Act (NPPA), Natural Community Conservation Program, and other provisions of the Fish and Game Code that afford protection to California’s fish and wildlife resources.

PROJECT DESCRIPTION SUMMARY

The Project is located in unincorporated southeastern Sacramento County, east of the community of Herald, California. The Project site is approximately 1,697 acres and is located adjacent to the north and west boundaries of the decommissioned Rancho Seco Nuclear Generating Station. The northern area is approximately 982 acres, and the western area is approximately 715 acres. The northern Project Area is bordered by Twin Cities Road to the south and farmland and farm roads to the west, north, and east; the western Project Area is bordered by Clay East Road to the south, Twin Cities Road to the northwest and the decommissioned Rancho Seco Nuclear Generating Station to the east. The proposed Project site includes spanning 6 parcels (Assessor’s Parcel Numbers [APNs] 140-0030-009, 140-0030-023, 140-0050-025, 140-0050-026, a portion of 138-0060-034, and 138-0060-035).

The Project consists of the construction and operation of a PV solar power and battery storage facility and interconnection facilities, including a generation substation and interconnection tie-lines that would interconnect into the Rancho Seco Switchyard. The Project would provide new power production capacity of up to 275 MW and allow storage of 275 MW at the BESS facility, which would be delivered at the point of interconnection with the electrical grid managed by SMUD. The solar panels and associated infrastructure would be located on approximately 1,328 acres of land within the 1,697-acre Project site. The Rancho Seco Switchyard will also be modified to accept the new interconnection.

The Project description should include the whole action as defined in the CEQA Guidelines section 15070 and should include appropriate detailed exhibits disclosing the Project Area including temporary impacted areas such as equipment staging area, spoils areas, adjacent infrastructure development, and access and haul roads if applicable.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist SMUD in adequately identifying and/or mitigating the project’s significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the Project with respect to impacts on biological resources. CDFW recommends that the forthcoming Environmental Impact Report (EIR) incorporate the following goals and objectives in order to minimize impacts to biological resources:

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1. Promote the preservation and restoration of continuous areas of natural habitat within the site and support their integration with existing and future preserves;
2. Retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, and endangered, candidate species, and species of special concern (SSC)). Particular attention should be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors;
3. Preserve the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by preserving native plants and, to the extent feasible, removing invasive nonnative plants. If not feasible, adverse impacts on riparian habitat should be mitigated by the preservation and/or restoration of this habitat in compliance with state and federal regulations in perpetuity;
4. Preserve and protect aquatic and wetland resources including creeks, streams, marshes, ponds, rivers, lakes and other seasonal wetlands to the extent feasible. If not feasible then mitigation measures should be required in coordination with the state and federal regulations to protect fish and wildlife resources. Additionally, SMUD should require either on- or offsite permanent preservation of an equivalent amount of wetland habitat to ensure no net loss of resource value and/or function;
5. Preserve and protect wetlands and grasslands that provide habitat for rare and endangered species. If not feasible, mitigation of all adverse impacts on annual grasslands should be required to comply with the state and federal regulations protecting foraging habitat for those species known to utilize this habitat;
6. Preserve and protect oak woodlands, heritage oaks, and/or significant stands of oak trees in the site that provide habitat for common native, and special-status wildlife species;
7. Preserve, protect, and avoid impacts to natural, undisturbed habitats that provide movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat should be replaced with habitat of equivalent value or enhanced to enable the continued movement of species;
8. Consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, SMUD should require habitat assessments to be conducted prior to circulation of the draft EIR, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level surveys should be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey should be conducted consistent with industry recognized best practices; or (2) suitable habitat and presence of the species should be assumed to occur within all potential habitat locations identified on the Project Area. Survey

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Reports should be prepared and submitted to SMUD, CDFW, and/or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law;

9. Thoroughly analyze future Project's potential direct, indirect and cumulative impacts on biological resources. To ensure these impacts are fully analyzed, SMUD should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). SMUD should analyze potential direct impacts from lighting, noise, human activity, and wildlife-human interactions created by development activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages, as well as analyze potential indirect impacts including resources in areas adjacent to the Project Area, such as nearby public lands, open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands. Additionally, SMUD should analyze a project's cumulative impacts and determine if that contribution would result in a significant impact;
10. Adopt appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of construction and long-term operation and maintenance of projects. Mitigation should be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (Guidelines § § 15126.4(a)(4)(B), 15064, 15065, and 16355);
11. Support active habitat restoration and enhancement to reduce impact of climate change stressors and improve overall resilience of habitat within existing open space at the site.

Mitigation Measures for Impacts to Biological Resources

1. *Fully Protected Species*: Fully protected species with the potential to occur in the area include but are not limited to: bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*). CDFW recommends that SMUD conduct a thorough review of available data and habitat conditions and disclose all fully protected species with the potential to occur within or adjacent to the Project Area. The EIR should analyze potential adverse impacts to these species, including those related to loss of foraging habitat disruption or migratory or breeding behaviors. The EIR should identify general avoidance, minimization, and mitigation strategies that could be implemented to reduce indirect impacts to fully protected species. This analysis will help ensure future project-level CEQA documents are based on a well-informed and legally adequate programmatic foundation.
2. *Species of Special Concern*: SSC species with the potential to occur in the area include but are not limited to: grasshopper sparrow (*Ammodramus savannarum*), northwestern pond turtle (*Actinemys marmorata*), and western spadefoot (*Spea hammondi*) (WES). CDFW recommends that the EIR disclose all possible CDFW SSC that may be present

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in the Project Area and broadly analyze potential adverse impacts to SSC due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends the SMUD include in the analysis, general avoidance, minimization and mitigation measures that could be implemented to reduce impacts to SSC.

3. *Sensitive Plant Communities*: Sensitive plant species with the potential to occur in the area include but are not limited to: dwarf downingia (*Downingia pusilla*) (S-2), legenere (*Legenere limosa*) (S-2), pincushion navarretia (*Navarretia myersii ssp. myersii*) (S-), and spicate calycadenia (*Calycadenia spicata*) (S-3). CDFW recommends that SMUD conduct a thorough review of available data and habitat conditions and disclose all sensitive plant species with the potential to occur within or adjacent to the Project Area. CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the California Natural Diversity Database (CNDDDB) and are included in *The Manual of California Vegetation* (Sawyer 2009). The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.
4. *Nesting Birds*: Please note that it is the Project Proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential habitat for nesting birds and birds of prey is present within the Project Area. At the assessment level, the EIR should disclose the likelihood of nesting habitat occurring within the Project Area and identify general seasonal constraints associated with avian breeding activity, typically from February 1 through August 31, depending on the bird species with the potential to occur in the area, and local conditions. General avoidance, minimization, and/or mitigation measures to avoid take should be included in the EIR which may include:

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- Conducting pre-construction nesting bird surveys by a qualified biologist within appropriate buffer distances for all phases of construction. Timelines and nesting bird survey distances should be decided upon based on the risk of impacts to potential nesting bird species that should be identified for smaller scale projects to follow.
- Establishing protective species-specific buffers around active nests with distances based on activity type and intensity, as well as nest stage and location.
- Restricting ground disturbance or vegetation removal to outside of avian breeding and nesting time (approximately February 1 through August 31).

The EIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the EIR should be made a condition of approval of the project.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if future project activities have the potential to result in “take” (Fish & G. Code § 86 defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) of State-listed CESA species, either through construction or over the life of the Project.

State-listed species and candidate species with the potential to occur in the area include but are not limited to: burrowing owl (*Athene cunicularia*) (BUOW), California tiger salamander (*Ambystoma californiense* pop. 1) (CTS), Crotch’s bumble bee (*Bombus crotchii*) (CBB), Swainson’s hawk (*Buteo swainsoni*) (SWHA), tricolored blackbird (*Agelaius tricolor*) (TRBL), Boggs Lake hedge-hyssop (*Gratiola heterosepala*) (BLHH), and Sacramento Orcutt grass (*Orcuttia viscida*) (SAOG).

CDFW recommends that the EIR disclose a list of the potentially occurring State-listed species within the Project Area, based on review of available data and habitat conditions. The EIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes.

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Native Plant Protection Act

The NPPA (Fish & G. Code §1900 *et seq.*) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

South Sacramento Habitat Conservation Plan

The Project is within the boundaries of the South Sacramento Habitat Conservation Plan (SSHCP) but is outside of the planned urban development area. CEQA Guidelines section 15125(d) states that EIRs must discuss any inconsistencies between projects and applicable plans (including habitat conservation plans/natural community conservation plans). Because the SSHCP is currently in implementation, CDFW recommends that the EIR include a discussion of each Project alternative's consistency with the SSHCP and how SMUD will ensure that implementation of the Project alternatives do not impede the SSHCP's ability to meet its permit conditions and biological goals and measurable objectives. Particular focus in the EIR's analysis should be directed to:

- Analysis of all SSHCP Covered Species.
- Assessment of habitat types identified in the SSCHP.
- Identification of applicable SSHCP avoidance, minimization, or mitigation measures.
- Analysis of any impacts to land commitments of the SSHCP.
- Discussion of any inconsistencies between the Project and the SSHCP.

To identify any potential inconsistencies with the SSHCP and provide special emphasis on rare or unique resources in compliance with CEQA, CDFW recommends that the EIR also address the following:

- Persistence of the SSCHP Covered Species with the SSHCP boundaries.
- Impacts to established or future reserve land managed under South Sacramento Conservation Agency (SSCA).
- Reduction of available reserve land in the SSHCP (with appropriate buffers and setbacks as detailed in the SSHCP).
- Financial impacts to SSCA and feepayers under the SSHCP.

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Lake and Streambed Alteration

The EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The EIR should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;
2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts to fish and wildlife resources. All LSA Notification types must be submitted online through CDFW's Review/EPIMS Permit Information Management System (EPIMS). For more information about EPIMS, please visit <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>. More information about LSA Notifications, paper forms and fees may be found at <https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA>.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all the information needed for CDFW to determine the extent of fish and wildlife

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resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

CDFW relies on the lead agency EIR analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.

Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Burrowing Owl

BUOW are designated as a state candidate species under CESA and the Project site is located within 1-mile of a known BUOW occurrence on CNDDDB. BUOW have suffered significant habitat loss due to large-scale development, including wind and solar energy infrastructure development, and from the killing and removal of mammals during significant grading activities whose underground burrows the owls use for nesting.

In October 2024, the California Fish and Game Commission granted BUOW candidate species protection under CESA. The candidacy designation temporarily affords BUOW broad CESA protections (including prohibitions against "take" without permit authorization) throughout the entirety of California while CDFW conducts a species status review to confirm whether (and where) listing is warranted and to recommend management and recovery actions. BUOW has additional protection under the Migratory Bird Treaty Act and Section 3503.5 of the Fish and Game Code; therefore, impacts may be considered potentially significant unless adequate mitigation is incorporated. Projects with potential impacts to BUOW are encouraged to avoid take or to obtain an ITP from CDFW.

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CDFW recommends that the following mitigation measures for BUOW be included in the draft EIR:

Burrowing Owl Survey. No more than 14 days prior to beginning Project activities, a Qualified Biologist shall conduct at least four surveys using the methods described in most recent guidelines from CDFW's [Staff Report on Burrowing Owl Mitigation, Appendix D](#) (2012). Surveys shall be conducted during the breeding season (February 1 to August 31) and include no fewer than four survey visits: at least one site visit between February 15 and April 15 and a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Surveys shall also be conducted during the non-breeding season (September 1 to January 31) before the start of construction activities to determine seasonal residency. Non-breeding season surveys shall consist of at least four visits, spread evenly, throughout the nonbreeding season. The presence of BUOW individuals, burrow complexes, or their sign (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, owl whitewash, nest burrow decoration materials, etc.) anywhere onsite or within a 1650-foot accessible radius around the Project Area shall be recorded and mapped. The Qualified Biologist shall submit the results of the survey to SMUD prior to beginning Project activities. If changes in BUOW presence are detected (e.g., BUOW have moved onsite or changed burrow use), the Qualified Biologist shall contact SMUD by phone or email within 24 hours of the observation to consult on appropriate measures to avoid or minimize impacts of the Project to BUOW and the Qualified Biologist shall establish no-disturbance buffers. The Qualified Biologist could modify the nest buffer with written approval from SMUD in coordination with CDFW.

California Tiger Salamander

CTS are listed as a state threatened species under CESA and the Project site is located within 1-mile of a known CTS occurrence on CNDDB. CTS relies on seasonal wetlands or freshwater ponds for successful reproduction and adjacent or accessible terrestrial habitat for migration and aestivation, making the quality of both aquatic and terrestrial habitat essential for CTS survival (Bolster 2010). Threats to CTS include habitat loss/conversion and fragmentation, including dispersal habitat between breeding pools and upland refugia. CTS spend the majority of their lifecycle underground (Trenham et al. 2000) and are susceptible to being crushed during ground disturbance activities. Projects with potential impacts to CTS are encouraged to avoid take or to obtain an incidental take permit (ITP) from CDFW in order to comply with CESA.

CDFW recommends implementing the following CTS habitat evaluation and delineation measure prior to initiation of construction activities:

1. **Habitat Evaluation and Delineation.** Prior to initiating Project activities, a Qualified Biologist shall conduct a habitat evaluation to determine the likelihood (low, moderate, or high) of CTS occurring within the proposed Project Area footprint. Habitat evaluations shall consider historic and existing land uses of the Project Area, proximity to known or potential breeding sites, existing quality of upland habitat, barrier(s) to CTS movement between suitable upland and/or aquatic habitat and the proposed Project

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Area, and other conditions pertinent to CTS occupation, as well as project-specific mitigation measures.

If the evaluation concludes that CTS have a moderate to high likelihood of occurring within the Project Area, SMUD shall be consulted in coordination with CDFW and USFWS. CDFW recommends that the consultation consider the size and configuration of the Project Area, and whether a pre-construction drift fence/pitfall trap survey or an endoscope survey of burrows is advisable to ensure that a proper assessment of impacts to CTS is conducted. Because CTS use aquatic and upland habitats during their life cycle, they may be present in either or both habitats on a given property. For sites with suitable breeding habitat, two consecutive seasons of negative larval surveys and a negative upland drift fence study in the intervening fall/winter are recommended to support a negative finding. For sites with no suitable aquatic breeding habitat within 1.3 miles of the work site, but where suitable upland habitat exists, two consecutive seasons of negative upland drift fence studies are recommended to support a negative finding.

Crotch's Bumble Bee

CBB are designated as a state candidate species under CESA, and the Project site is located within CBB's historic range. Recent survey results have shown them to be present throughout San Joaquin, Sacramento, and Calaveras Counties. CBB was historically common in the Central Valley of California but now appears to be absent from most of it, especially in the center of its historic range (Hatfield et al. 2014). The primary threat to CBB populations in California continues to be habitat loss, especially the loss of suitable foraging habitat. Agricultural intensification, livestock grazing, urban development, as well as other habitat modifications, can jeopardize the habitat needs of bumble bees and lead to the fragmentation of habitat into pieces that are too small or too distant to support diverse bumble bee communities (Goulson et al. 2008). Additionally, herbicides are often used with invasive weed management and can be more cost effective than other management methods. However, the use of herbicides to control weeds can indirectly harm pollinators through the removal of flowers that once provided them with pollen and nectar resources (Williams 1986, Shepherd et al. 2003, Pleasants & Oberhauser 2013).

In June 2019, the California Fish and Game Commission granted CBB candidate species protection under CESA. The candidacy designation temporarily affords CBB broad CESA protections (including prohibitions against "take" without permit authorization) throughout the entirety of California while CDFW conducts a species status review to confirm whether (and where) listing is warranted and to recommend management and recovery actions. Construction and operation and maintenance activities including but not limited to ground disturbance, noise, fugitive dust, human presence, herbicide application, and/or night lighting could result in significant impacts to nesting or foraging CBB during project activities. Projects with potential impacts to CBB are encouraged to avoid take or to obtain an ITP from CDFW.

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CDFW recommends that the EIR includes the following CBB measure prior to initiation of construction activities:

Crotch's Bumble Bee Protocol Survey. If Project activities are proposed to occur during the active season for CBB, Project Proponent shall develop a Pre-Construction Survey Plan for CBB and submit it to SMUD for acceptance, developed in coordination with CDFW (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>). A total of three surveys shall be conducted prior to any ground-disturbing Project activities or vegetation removal that will take place during the active season for CBB (March 1 through October 31), or until all flowering vegetation is largely desiccated, to determine if any active nests are within the Project Area. Each survey shall be spaced two to four weeks apart, unless otherwise authorized in writing by SMUD in coordination with CDFW, with the last survey taking place within 72 hours prior to construction activity. A Qualified Biologist shall perform meandering transects through the planned construction footprint, plus a 50-foot buffer where accessible, between 9:00 am and 1:00 pm where feasible and at least one hour after sunrise and at least two hours before sunset, to visually survey the area for CBB activity. The duration of the survey will be the minimum amount of time necessary to adequately survey the area, typically at least one hour of surveying per three acres of potential habitat, excluding capture, chilling, photo, identification, and release time. For each sampling event, the Qualified Biologist shall survey suitable habitat using non-lethal photo voucher and netting methods, developed in coordination with CDFW (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>). If a suspected or confirmed CBB is identified during any of these surveys, the Qualified Biologist shall notify SMUD within 48 hours.

If only foraging CBB is observed (i.e., no nest is found), construction activities may proceed without the additional monitoring requirements; however, if there is a lapse in initial construction disturbance greater than two weeks, an additional clearance survey will be repeated prior to ground disturbance. If a CBB nest is found, one or more Qualified Biologists will provide biological construction monitoring as long as needed to implement applicable measures below.

If CBB nests are discovered in the Project Area, then Project Proponent will implement the following measures to minimize impacts on the nest.

If a nest is discovered within a construction or restoration area and avoidance is feasible, a non-disturbance buffer of 50 feet shall be established around the nest until the nest senesces or becomes inactive and is no longer in use, as determined by the Qualified Biologist or until Project activities in the Project Area are complete, whichever is first. The buffer shall be delineated using high-visibility fencing, flagging, or similar materials along with appropriate signage. The nest location will be recorded with global positioning system (GPS) and will be reported to SMUD within 48 hours of finding the nest. The Qualified Biologist could modify the nest buffer with written approval from SMUD in coordination with CDFW.

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Swainson's Hawk

SWHA are listed as a state threatened species under CESA and the Project site is located within 4 miles of a known SWHA occurrence on CNDDDB. The primary threat to the SWHA population in California continues to be habitat loss, especially the loss of suitable foraging habitat. This impact may have been the greatest factor in reducing SWHA range and abundance in California over the last century (California Department of Fish and Game 1993, California Department of Conservation 2011). SWHA is listed as threatened under CESA and has additional protection under the Migratory Bird Treaty Act and section 3503.5 of the Fish and Game Code; therefore, impacts may be considered potentially significant unless adequate mitigation is incorporated. Projects with potential impacts to SWHA are encouraged to avoid take or to obtain an ITP from CDFW.

Significant loss of SWHA foraging habitat has occurred in Yolo, Sacramento, and San Joaquin counties due to residential development, economic and resource availability factors, and conversion of riparian and woodland habitat to agriculture and unsuitable urban environments (CDFW 2016). Suitable foraging habitat is necessary to provide an adequate energy source for breeding SWHA adults, including support of nestlings and fledglings. If prey resources are not sufficient, or if adults must hunt long distances from the nest site, the energetics of the foraging effort may result in reduced nestling health and survival with an increased likelihood of disease and/or starvation. In more extreme cases, the breeding pair, in an effort to assure their own existence, may even abandon the nest and young (Woodbridge 1985). Routine animal grazing activities, increases in human presence, and the permanent impacts associated with solar panel installation, will permanently reduce the amount of SWHA foraging habitat. SWHA generally searches for prey by soaring above fields and solar panels reduce their ability to see and catch their prey.

CDFW recommends that the EIR includes the following SWHA measure prior to initiation of construction activities:

Swainson's Hawk Protocol Survey. In each year in which Project activities occur, a Qualified Biologist shall conduct a SWHA survey within a minimum 0.5-mile radius around the Project Area. The Qualified Biologist shall conduct the appropriate technique in each of the five periods below in accordance with the methodology described in the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Tech. Advis. Comm., 5/2000):

- January to March 20 – One Survey, All Day
- March 20 to April 5 – Three Surveys, Sunrise to 10:00 / 16:00 to Sunset
- April 5 to April 20 – Three Surveys, Sunrise to 12:00 / 16:30 to Sunset
- April 21 to June 10 – Monitoring

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- June 10 to July 30 – Three Surveys, Sunrise to 12:00 / 16:00 to Sunset

Results of each survey period shall be submitted to SMUD. The Project Proponent shall map all existing or potential nesting or foraging sites and provide these maps to SMUD. Nesting sites, including both currently occupied nesting sites and sites known to have been occupied within the last five years, shall be noted on plans that are submitted. Nests found within 0.50 miles should establish a 1300-foot no-disturbance buffer and monitored either continuously or periodically depending on the construction or maintenance activities and level of disturbance until young have fledged, are feeding independently and are no longer dependent on the nest. Onsite monitoring shall be conducted by a Qualified Biologist familiar with the species, as buffers may need to be increased based on the birds' tolerance level to the disturbance as activities change and as the birds' transition through different stages of the nesting cycle. The Qualified Biologist could modify the nest buffer with written approval from SMUD in coordination with CDFW.

Tricolored Blackbird

TRBL are listed as a state threatened species under CESA and the Project site is located within 1-mile of a known TRBL occurrence on CNDDDB. Construction activities could result in significant impacts to TRBL through noise, fugitive dust, human presence, and/or night lighting. Noise from road use, generators, and other equipment may disrupt TRBL mating calls or songs which could impact their reproductive success (Patricelli and Blickley 2006, Halfwerk et al. 2011). Bayne et al. (2008) found that songbird abundance and density was significantly reduced in areas with high levels of noise. Projects with potential impacts to TRBL are encouraged to avoid take or to obtain an ITP from CDFW in order to comply with CESA.

CDFW recommends that the EIR includes the following TRBL measures prior to initiation of construction activities:

Preconstruction Assessment. Prior to the commencement of Project activities, a Qualified Biologist shall conduct a field investigation to determine if existing or potential nesting or foraging sites are present within the Project Area and adjacent areas within 0.5 miles of the Project Area. The preconstruction assessment shall be completed during the breeding season (March 1 through September 15) prior to ground-disturbing activities. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Project Proponent shall map all existing or potential nesting or foraging sites and provide these maps to SMUD. Nesting sites, including both currently occupied nesting sites and sites known to have been occupied within the last five years, shall be noted on submitted maps. If suitable nesting or foraging habitat is determined to be present onsite or adjacent to the Project site during the preconstruction assessment, the Project Proponent should conduct TRBL preconstruction surveys prior to initiating any Project related work.

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Preconstruction Surveys. Project Proponent shall conduct a preconstruction survey to determine if active nests are present within the Project Area or within 500 feet of a project-related activity if existing or potential nest sites were found during surveys and Project activities will occur during the breeding season (March 1 through September 15). The Qualified Biologist shall conduct preconstruction surveys within 30 days of the commencement of Project activities and again within 3 days of ground-disturbing Project activities within the proposed Project Area and within 500 feet of the Project Area to determine the presence of nesting TRBL. The surveys should be separated by at least three weeks. Preconstruction surveys shall be conducted during the breeding season (March 1 through September 15). Surveys conducted in February (to meet preconstruction survey requirements for work starting in March) shall be conducted within 14 days of the commencement of Project activities again within 3 days of ground-disturbing Project activities. If breeding colonies are found, the foraging behavior of the colony shall also be documented. The surveys shall be based on survey methods identified in the Results of the 2017 Tricolored Blackbird Statewide Survey, Appendix 1 (Meese 2017).

If active nests are found within the Project Area or within 500 feet of any Project-related Project activity, Project Proponent shall establish a 500-foot temporary no-disturbance buffer around the active nest until the young have fledged. The Qualified Biologist could modify the nest buffer with written approval from SMUD in coordination with CDFW.

Artificial Lighting - Night. Permittee shall minimize, to the extent feasible, permanent or temporary, fixed, exterior lighting, including motion-triggered security lighting that casts light on TRBL habitat beyond the Project Area between sunset and sunrise. Nighttime construction lighting shall be shielded and oriented downward to minimize effects on any nearby TRBL habitat.

Western Spadefoot

The California Fish and Game Commission received a petition on September 24, 2025, to list WES as a candidate species under CESA and the Project site is located within 1-mile of a known WES occurrence on CNDDDB. If the determination to list WES is made by the Fish and Game Commission, WES would be given a candidacy designation affording temporary broad CESA protections (including prohibitions against “take” without permit authorization) throughout the entirety of California while CDFW conducts a species status review to confirm whether (and where) listing is warranted and to recommend management and recovery actions. WES are most often associated with grasslands, but must be connected to suitable breeding habitat, which includes seasonal water bodies like vernal pools and intermittent streams, though they have also been found to breed in reservoirs, irrigation ditches, stock ponds, and even road ruts (Morey, 2005; Stebbins, 2003). Because of their biphasic life cycle, WESs require aquatic breeding habitat connected to terrestrial over-summering habitat. Anthropogenic habitat loss and degradation are some of the biggest threats to amphibian populations worldwide, currently impacting 88% of threatened amphibian species (Baillie et al., 2004; Cushman, 2006; Sodhi et al., 2008; Willson & Dorcas, 2003). Human activities such as urban and

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agricultural development, deforestation, and draining of wetlands are primary mechanisms of habitat loss (Gallant et al., 2007; Grant et al., 2016).

CDFW recommends that the EIR includes the following WES measures prior to initiation of construction activities:

Habitat Evaluation and Delineation. Prior to initiating Project activities, a Qualified Biologist shall conduct a habitat evaluation to determine the likelihood (low, moderate, or high) of WES occurring within the proposed Project Area footprint. Habitat evaluations shall consider historic and existing land uses of the Project Area, proximity to known or potential breeding sites, existing quality of upland habitat, barrier(s) to WES movement between suitable upland and/or aquatic habitat and the proposed Project Area, and other conditions pertinent to WES occupation, as well as project-specific mitigation measures.

If the evaluation concludes that WES have a moderate to high likelihood of occurring within the Project Area, SMUD shall be consulted in coordination with CDFW and USFWS. CDFW recommends that the consultation consider the size and configuration of the Project Area, and whether a pre-construction drift fence, audio detection, and/or larval surveys are advisable to ensure that a proper assessment of impacts to WES is conducted. Because WES use aquatic and upland habitats during their life cycle, they may be present in either or both habitats on a given property. For sites with suitable breeding habitat, two consecutive seasons of negative larval surveys and a negative upland drift fence study in the intervening fall/winter are recommended to support a negative finding. For sites with no suitable aquatic breeding habitat within 0.5 miles of the work site, but where suitable upland habitat exists, two consecutive seasons of negative upland drift fence studies are recommended to support a negative finding.

Artificial Lighting - Night. Permittee shall minimize, to the extent feasible, permanent or temporary, fixed, exterior lighting, including motion-triggered security lighting that casts light on WES habitat beyond the Project Area between sunset and sunrise. Nighttime construction lighting shall be shielded and oriented downward to minimize effects on any nearby WES habitat.

Boggs Lake Hedge-hyssop

BLHH are listed as a state endangered species under CESA, and the Project site is located within 2 miles of a known BLHH occurrence on CNDDDB. BLHH is also listed as a 1B.2 plant on the California Native Plant Society (CNPS) rare plant ranking system. Many CNPS species are in danger of extinction because their habitats have been severely reduced in acreage, are threatened with destruction or adverse modification, or because of a combination of these and other factors. Vegetation removal during ground disturbing activities may result in the loss of special status or CNPS plant species and the loss of habitat that supports numerous wildlife species. The activities associated with grading may also disturb associated soil seed banks that sustain local plant populations and CNPS sensitive plant communities. Projects with potential impacts to BLHH are encouraged to avoid take or to obtain an ITP from CDFW in order to comply with CESA.

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CDFW recommends that the EIR includes the following BLHH measures prior to initiation of construction activities:

Boggs Lake Hedge-hyssop Surveys. If ground-disturbing project activities are within 250 feet from BLHH modeled habitat, the Project site will be surveyed for BLHH by a Qualified Biologist following CDFW rare plant survey protocols (*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* dated March 20, 2018) or most the recent CDFW guidelines to determine if BLHH is present. A Qualified Biologist(s) will conduct a field investigation to identify and map occurrences. If BLHH is identified during field surveys, Project Proponent shall consult with SMUD in coordination with CDFW to determine the appropriate methods on how to comply with CESA.

Sacramento Orcutt Grass

SAOG are listed as a state endangered species under CESA, and the Project site is located within 2 miles of a known SAOG occurrence on CNDDDB. SAOG is also listed as a 1B.1 plant on the CNPS rare plant ranking system. Many CNPS species are in danger of extinction because their habitats have been severely reduced in acreage, are threatened with destruction or adverse modification, or because of a combination of these and other factors. Vegetation removal during ground disturbing activities may result in the loss of special status or CNPS plant species and the loss of habitat that supports numerous wildlife species. The activities associated with grading may also disturb associated soil seed banks that sustain local plant populations and CNPS sensitive plant communities. Projects with potential impacts to SAOG are encouraged to avoid take or to obtain an ITP from CDFW in order to comply with CESA.

CDFW recommends that the EIR includes the following SAOG measures prior to initiation of construction activities:

Sacramento Orcutt Grass Surveys. If ground-disturbing project activities are within 250 feet from SSHCP's modeled SAOG habitat, the Project site will be surveyed for SAOG by a Qualified Biologist following CDFW rare plant survey protocols (*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* dated March 20, 2018) or most the recent CDFW guidelines to determine if SAOG is present. A Qualified Biologist(s) will conduct a field investigation to identify and map occurrences. If SAOG is identified during field surveys, Project Proponent shall consult with SMUD in coordination with CDFW to determine the appropriate methods on how to comply with CESA.

General Avian, Bat, and other Wildlife Impacts

The EIR should evaluate the cumulative effects of loss of habitat as an indirect cause of avian mortality for grassland birds. Breeding Bird Surveys (BBS) conducted by the U.S. Geological Survey Biological Resources Division and volunteers throughout the country show that grassland birds, as a group, have declined more than other groups, such as

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forest and wetland birds (Brennan and Kuvlesky 2005; NRCS 1999). The BBS shows that in California, grassland birds such as the western meadowlark (*Sturnella neglecta*) and BUOW, have shown population declines since 1966 (Sauer et al., 2019). CDFW recommends at a minimum, an equal amount of land with primary purpose of habitat conservation should be enhanced and conserved to offset the loss of habitat for grassland birds.

In addition, the EIR should evaluate threats to birds from collisions and electrocutions with solar infrastructure. Collisions with PV equipment can include direct collisions into panels, guy wires, or transmission lines. Injuries from collisions with collectors/reflectors may result in acute and direct take (Kagan et al. 2014), or stranding. Stranding can occur when an individual is injured by collision impact and is unable to take off or when they require a running start on the water's surface. The EIR should include measures to reduce the risks of avian collisions such as adding special patterns to the PV panels. Linear features such as generator-tie lines, collector lines, and interior and perimeter fencing all present collision hazards for birds, and electric lines present a potential electrocution hazard (Huso, et al. 2016). All aboveground lines should be fitted with bird flight diverters or visibility enhancement devices. When lines, or other related infrastructure with the potential to cause take cannot be placed underground, appropriate avian protection designs should be employed. As a minimum requirement, the collection system should conform with the most current edition of the Avian Power Line Interaction Committee guidelines to prevent electrocutions, found at: <https://www.aplic.org/mission>.

The EIR should include a requirement for weekly or twice-weekly avian mortality surveys to meet the following objectives:

- Estimate the total number of birds and bats killed at the Project site within a specified time period.
- Determine whether there are spatial or temporal/seasonal patterns of total bird fatality.
- Evaluate species composition and which taxonomic groups may be at risk.
- Provide results that allow comparisons with other solar sites and to evaluate changes in fatality due to adaptive management.

The EIR should include a requirement to develop an Avian and Bat Protection Plan or Bird and Bat Conservation Strategy (BBCS) in coordination with the USFWS and CDFW. The purpose of the BBCS is to:

- Describe baseline conditions for bird and bat species present within the Project site and adjacent areas that may be influenced by the Project, including results of site-specific surveys.
- Assess potential risks to birds and bats based on the proposed activities.

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- Specify conservation measures that will be employed to avoid, minimize, and/or mitigate any potential adverse effects to these species.
- Describe the incidental monitoring and reporting that will take place during construction.
- Provide details for post-construction monitoring.
- Specify the adaptive management process that will be used to address potential adverse effects on avian and bat species.

Pollinators

The EIR should include measures to increase use by pollinators such as dual use farming. The Project should be designed to optimize a balance between electrical generation and agricultural production (Jossi 2018) or native plants. Native plantings or dual use farming techniques provide additional foraging resources for pollinator species including but not limited to CBB and for other native species by increasing the amount of nectar resources on a local level. Incorporating locally native plantings or dual use farming techniques help to increase pollinator populations and would help to reduce project impacts to a less than significant level.

CDFW recommends the Project be planted with deep-rooted native flowers and grasses that capture and filter storm water, build topsoil, and provide abundant and healthy food for bees and other insects that provide critical services to our food and agricultural systems as described on the Fresh Energy website at <https://fresh-energy.org/beeslovesolar/>.

Permanent Fencing

CDFW recommends the EIR discuss and analyze impacts to wildlife associated with permanent fencing which may be installed around the solar facility. For example, a fence can obstruct the natural migration and daily movements of wildlife such as deer and the consequences of disrupting these movements should be considered in fencing design (VerCauteren *et al.* 2006). In addition, deer occasionally become entangled in fences or collide with them when attempting to pass over, through, or under (Goddard *et al.* 2001). Some fences, especially wire mesh, can be a complete barrier to fawns, even if adults can still jump over. This can lead to fawns becoming separated from their mothers and the herd resulting in the fawns killed by predators, vehicle collisions, or starvation (Hanophy 2009).

Birds can also collide with fences, breaking wings and tangling in wires. Large, low-flying birds such as ducks, geese, hawks, and owls are especially vulnerable to collisions with fencing. For example, the American kestrel (*Falco sparverius*) and low-flying hawks and owls may collide with fences when swooping in on prey (Bryant *et al.* 1993). Fencing can be made more visible to birds by attaching reflective or colorful weather-resistant flagging materials (e.g., aluminum or plastic strips) to the wire.

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Fences made of chain-link material may exclude small mammals, amphibians, and reptiles. Providing a small gap between the fencing and the ground can allow animals to pass through without being blocked from entry into the solar arrays.

The EIR should analyze the potential impacts to wildlife caused by the proposed fencing and describe alternative wildlife-friendly designs that will be implemented. The EIR should also include effective minimization and mitigation measures to offset any impacts of fencing to wildlife species that cannot feasibly be completely avoided.

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 the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://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://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

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 in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code §21092 and §21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

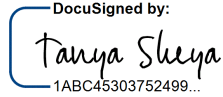
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CDFW appreciates the opportunity to provide early comments on the Twin Cities Solar and Battery Energy Storage System Project and to assist in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts. Questions regarding this letter or further coordination should be directed to Michael Shun, Senior Environmental Scientist (Specialist) at (916) 767-8444 or michael.shun@wildlife.ca.gov.

Sincerely,

DocuSigned by:

1ABC45303752499...

Tanya Sheya

Environmental Program Manager

ec: Dylan Wood, Senior Environmental Scientist (Supervisor)
Michael Shun, Senior Environmental Scientist (Specialist)
Harvey Tran, Environmental Scientist (Specialist)
California Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

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