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Subject: Valley Clean Infrastructure Plan (Plan)
DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT (DPEIR)
State Clearinghouse No. 2024020124

Dear Russ Freeman:

The California Department of Fish and Wildlife (CDFW) received a DPEIR from Westlands Water District (District), as Lead Agency, for the Plan pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW previously received a Notice of Preparation (NOP) for the Plan on February 2, 2024 and submitted comments on March 4, 2024.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Plan that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Plan that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Plan may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Plan 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.

Fully Protected Species: CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except as follows:

- Take is necessary for scientific research,
- Efforts to recover a fully protected, endangered, or threatened species, live capture, and relocation of a bird species for the protection of livestock, or
- They are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

Additionally, specified types of infrastructure projects may be eligible for an Incidental Take Permit (ITP) for unavoidable impacts to fully protected species if certain conditions are met (see Fish & G. Code §2081.15). Project proponents should consult with CDFW early in the project planning process if an ITP may be pursued projects tiered from this Plan.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Plan.

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PLAN DESCRIPTION SUMMARY

Proponent: Westlands Water District

Plan Description: As proposed, the Plan provides policy and planning framework for the implementation of renewable energy projects totaling up to 21,000 megawatts (MW) of capacity within the Fresno County portion of the Westland Water District's service area (Plan Area). Development would be located on private and District-owned lands within identified Development Focus Areas (DFAs) making up approximately 136,000 acres selected for potential development within the 534,800 acre Plan Area. The Plan includes the construction and operation of photovoltaic (PV) solar generation facilities, as well as battery energy storage systems (BESS), generation tie (gen-tie) lines, five newly constructed collector substations, and other associated infrastructure.

The individual solar PV facilities would range in size from 100 MW (on approximately 640 acres) to about 1,150 MW (on approximately 7,500 acres), with the typical facility having an approximate generation capacity of 250 MW constructed on 1,600 acres. The Plan includes BESS facilities constructed on accompanying solar sites as well as approximately 10,000 MW of standalone BESS facilities operating independently of solar generation. It is anticipated that each stand-alone energy storage facility would have up to 1,150 MW of storage with a capacity of 4 hours per MW, or a total capacity of 4,600 MW hours (MWh).

Each solar PV generating facility and stand-alone energy storage facility would be served by a 230-kilovolt (kV) generation-interconnection tie-line (gen-tie line) which would convey the generated power to one of five 500/230-kV collection substations distributed from north to south along the backbone transmission corridor running though the eastern portion of the Plan Area. The gen-tie lines would branch out from each collection substation to serve the solar and energy storage facilities in the vicinity. The precise alignments of the gen-tie lines would depend on the size, location and timing of solar and energy storage projects.

Location: The Plan Area encompasses the entire Fresno County portion of the District's service area.

Timeframe: Construction would occur within an 11-year development period, with construction planned to start in 2028 and full buildout anticipated by 2038.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the District in adequately identifying and/or mitigating the Plan's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the final DPEIR.

As noted in CDFW's March 4, 2024, NOP comment letter (NOP Comment Letter), District lands are generally considered as a relatively low conflict area with respect to biological resources for utility-scale solar development. In 2013, The Nature Conservancy (TNC) published a document to serve as a "first filter" screening of locations within the San Joaquin Valley to assess the likelihood that those areas will present conservation conflicts (Butterfield et al., 2013). The TNC document is designed to help developers and other stakeholders apply the precautionary principle and proactively avoid areas likely to have a higher risk of conflicts. CDFW continues to recommend the District consider the TNC document with respect to DFA siting within District lands and private lands; the TNC document identified 435,601 acres of Low Biodiversity Conservation Value / Salt-affected lands mapped within the study area, 97,578 acres of which is within District boundaries. Subsequent efforts built on the TNC assessment to further identify least conflict lands in the San Joaquin Valley (Pearce et al. 2016) which would also help inform DFA siting.

Additionally, as noted in the DPEIR, the Westlands Solar Park Master Plan Area (Solar Park Area), a 2.7-gigawatt (GW) Solar Park located on District lands in Kings County, was analyzed within a Program Environmental Impact Report, circulated and finalized in December 2017. During preparation of this report, extensive coordination occurred with environmental non-profit organizations and federal, State, and local agencies, including CDFW. This coordination led to the siting of the Solar Park Area within a least conflict area for fish and wildlife (biological) resources, significantly reducing the potential for individual project and cumulative impacts to special-status species. This level of coordination has not occurred with CDFW during preparation of the Plan DPEIR.

Conserved Lands and Proximity of Development Focus Areas

The DPEIR identifies that several DFAs would be located directly adjacent to higher quality natural habitats and conserved lands, those include the CDFW owned and managed Mendota Wildlife Area (Mendota WA), Alkali Sink Ecological Reserve, and CDFW managed Alkali Sink Conservation Bank. The DPEIR also acknowledges that the northern portion of the Plan Area, which includes many DFA parcels located in close proximity to the Mendota WA, functions as a wildlife linkage for many wildlife species. Measures are provided in the DPEIR to mitigate for potentially significant impacts to wildlife connectivity and this essential wildlife linkage, including the preservation of canals and ditches within the Plan Area, and the inclusion of wildlife-friendly fencing for projects tiered from the Plan. While CDFW concurs with the inclusion of these

measures, CDFW is concerned these measures alone would not be sufficient to mitigate for potentially significant impacts to these habitats and associated biological resources.

Depending on how the projects within the DFAs adjacent to the Mendota WA are constructed, and how the habitats within completed projects are maintained, wildlife movement and connectivity could be reduced and wildlife habitat values within the Mendota WA degraded. While CDFW concurs that permeability is an essential component for projects within the Plan Area, CDFW also recommends that the District coordinate with CDFW for recommendations on DFA siting, site permeability, and habitat management, to adequately avoid impacts to the Mendota WA, and allow for permeability within the greater landscape.

In some cases, conversion of agricultural lands to solar may be beneficial for wildlife, particularly when certain measures are included in solar project design like perimeter fences permeable to wildlife and maintaining low profile vegetative cover within the solar project boundaries. Lastly, ground water overdrafting is affecting wildlife habitat in some locations such as Mendota WA; approximately 80% of Mendota WA has experienced recent and substantial subsidence as a direct result of groundwater over-drafting to the south, which significantly affects Wildlife Area operation and thus the amount and quality of available wetland habitat. If conversion of agricultural lands to solar uses occurs on lands to the south of Mendota WA and this causes local groundwater pumping by Tranquility Irrigation District and other private wells to cease or be significantly reduced, there would be habitat benefits within the Mendota WA.

Special Status Species Recommendations

Currently, the DPEIR acknowledges that the Plan area is within the geographic range of several special status animal species and proposes specific mitigation measures to reduce impacts to these species to a less than significant level. CDFW has concerns about the ability of some of the proposed mitigation measures to reduce impacts to less significant and avoid unauthorized take for a number of special-status animal species. These species include, but are not limited to, the State and federally endangered and State fully protected blunt-nosed leopard lizard *(Gambelia sila*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State threatened Swainson's hawk (*Buteo swainsoni*) and tricolored blackbird (*Agelaius tricolor)*; the State and federally threatened giant garter snake (*Thamnophis gigas*) and California tiger salamander (*Ambystoma californiense*); the State candidate western burrowing owl (*Athene cunicularia hypugaea*) and Crotch's bumble bee (*Bombus crotchii)*; and the State species of special concern and federally threatened California red-legged frog (*Rana draytonii*). CDFW also has concerns about the ability of some of the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for special-status plants.

Blunt-nosed leopard lizard

A number of proposed DFAs, particularly those within the annual grassland and agricultural habitats west of I-5 near Panoche Creek, are within the known geographic range of blunt-nosed leopard lizard (BNLL). The DPEIR acknowledges the potential for BNLL within the western portion of the Plan Area, and includes Mitigation Measure BIO-7 to mitigate for potential impacts. CDFW concurs with Mitigation Measure BIO-7 but recommends that this measure be implemented within and adjacent to all areas of suitable habitat within the species range. Additionally, CDFW reiterates the recommendation that the District coordinate with CDFW on the siting of DFAs to further avoid project-related impacts to special-status species, and recommends early consultation with CDFW occur well in advance of any planned development within the DFAs located west of I-5 due to the potential for BNLL to occur.

San Joaquin Kit Fox

The DPEIR acknowledges the potential for San Joaquin kit fox (SJKF) to be present with the Plan Area and includes Mitigation Measure BIO-12 to mitigate for potential impacts to the species. Mitigation Measure BIO-12 includes measures for pre-construction surveys, no-disturbance buffers, and minimization. Mitigation Measures BIO-12(f) states that, “If active dens are identified during pre-activity surveys within or immediately adjacent to an area subject to project activity, a disturbance-free buffer zone of at least 300 feet shall be established around the active den. This buffer shall be maintained until the young have moved on from the den. Once the den has been confirmed to be inactive by a qualified biologist, it shall be excavated, then collapsed. If active burrows cannot be avoided, an ITP may be required.”

CDFW concurs with the portion of Mitigation Measure BIO-12 that describes the need for preconstruction surveys following the U.S. Fish and Wildlife Service (USFWS) “Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance” (2011) (USFWS Protocol), but does not concur with the portion of BIO-12(f) that discusses installation of no-disturbance buffers and specifically notes that once an active SJKF has been determined inactive by a qualified biologist, “it shall be excavated, then collapsed.” As the no-disturbance buffer identified in BIO-12(f) does not follow USFWS Protocol buffer guidelines and the process of collapsing of a recently active SJKF den (i.e., known SJKF den) has a strong potential to result in take, CDFW recommends the DPEIR include the following:

Recommended Mitigation Measure 1: SJKF Avoidance Buffer

CDFW recommends implementing no-disturbance buffers, as described in the U.S. Fish and Wildlife Service (USFWS) “Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance” (2011) (USFWS Protocol) around potentially suitable or known SJKF den sites. If the no-disturbance

buffers outlined in the USFWS Protocol cannot be maintained, then consultation with CDFW is warranted to determine if take can be avoided or if take authorization is necessary as described below.

Recommended Mitigation Measure 2: SJKF Take Authorization

If the no-disturbance buffers outlined in the USFWS Protocol for SJKF are not feasible, CDFW recommends that consultation with CDFW occur to discuss how to avoid take of SJKF. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Swainson's Hawk

The DPEIR acknowledges the presence of suitable Swainson's hawk (SWHA) foraging and nesting habitat throughout the Plan Area and includes Mitigation Measure BIO-4 to mitigate for potential impacts.

Mitigation Measure BIO-4(b) includes measures for SWHA nest avoidance and states: "If an active nest is found within one-half mile of a planned construction zone, a qualified biologist shall establish a suitable construction-free buffer around the nest. The biologist shall establish the buffer based on topography, nature of construction work, distance to the nest tree, and individual behavior of the nesting pair and young, if they are present. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined the young have fledged. If it is necessary to undertake construction work within the established buffer, a qualified biologist familiar with the active nest should establish a record of "regular" behavior of the nesting pair, and then establish an exclusion zone based on the tolerance of the nesting pair to construction activity in the vicinity of the nest. The qualified biologist shall conduct monitoring of the nest whenever work is planned to occur within the buffer. If a change in behavior from the previously observed "regular" behavior occurs, the qualified biologist shall increase the size of the exclusion zone or reestablish the original standard buffer."

CDFW concurs with the portion of Mitigation Measure BIO-4 that requires protocol surveys during the SWHA breeding season but does not concur that Mitigation Measure BIO-4(b), which describes avoidance of nesting SWHA, is sufficient to avoid the unauthorized take of the species and recommends the DPEIR include following:

Recommended Mitigation Measure 3: SWHA Avoidance Buffers
If project activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, CDFW recommends a minimum ½-mile no-disturbance buffer be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally.

These buffers would remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of project activities.

Recommended Mitigation Measure 4: SWHA Take Authorization
CDFW also recommends that in the event an active SWHA nest is detected, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Tricolored blackbird

The DPEIR and associated Biological Resources Evaluation (BRE; Appendix C) analyze the potential for tricolored blackbird (TRBL) but conclude there is no suitable habitat within in the Plan Area. As noted in the DPEIR analysis, TRBL in the San Joaquin valley historically bred within the vicinity of fresh water, primarily in marshy areas. Important sites for nesting colonies included heavy growths of cattails, tules, thistles, willows, blackberries, mustard, nettles, and salt cedar, Foraging typically occurred within flooded lands, grassy fields, and margins of ponds (Grinnel and Miller 1994). However, a large proportion of the San Joaquin Valley TRBL population now nests in agricultural grain fields (Weintraub et al., 2016). These grain fields and other suitable habitats may be present in the vicinity of some of the proposed DFAs within the Plan Area, including within the nearby conserved lands mentioned above. As such, CDFW recommends the DPEIR include the following:

Recommended Mitigation Measure 5: TRBL Habitat Assessment and Surveys
CDFW recommends that construction be timed to avoid the normal bird breeding season (February 1 through September 15). However, if construction must take place during that time, CDFW recommends that a qualified biologist conduct a habitat assessment for TRBL nesting habitat prior to the initiation of project activities. If the qualified biologist determines that suitable nesting habitat is present, CDFW recommends that a qualified biologist conduct surveys for nesting TRBL no more than 10 days prior to the initiation of project activities to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 6: TRBL Consultation
If an active TRBL nesting colony is found during preconstruction surveys or during construction, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Giant garter snake

The DPEIR and associated Biological Resources Evaluation (BRE; Appendix C) analyze the potential for giant garter snake (GGS) but conclude there is no suitable habitat within in the Plan Area. As noted in the DPEIR analysis, GGS occur within the Mendota Dam quadrangle and were detected in the Mendota WA in 2017 (CDFW 2025). The DPEIR determined that GGS were unlikely to occur within the Plan Area due to a lack of aquatic and riparian habitat in this portion of the Plan Area; however, GGS have been documented dispersing as far as 800 feet from the edge of aquatic habitats, and traveling as much as five miles over multiple days within areas of suitable habitat, such as the habitats present within the Mendota WA (USFWS 1999). As GGS are known to disperse up to 800 feet from suitable aquatic habitat and several DFAs are located directly adjacent to the Mendota WA, CDFW reiterates the recommendation that the District coordinate early with CDFW on the siting of DFAs to further avoid project-related impacts to GGS. Finally, CDFW recommends the DPEIR include the following:

> **Recommended Mitigation Measure 7: GGS Habitat Assessment and Surveys**
> CDFW recommends a qualified biologist conduct a habitat assessment to determine whether the project site contains suitable dispersal or breeding habitat for GGS. If suitable habitat is determined to be present, CDFW recommends that a qualified biologist survey the project site and a minimum 800-foot radius of the project site for GGS, suitable GGS burrows, and suitable GGS habitat.
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> **Recommended Mitigation Measure 8: GGS Consultation**
> If GGS are found during preconstruction surveys or at any time during construction, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

California tiger salamander

A number of proposed DFAs, particularly those within the annual grassland and agricultural habitats west of I-5 near Panoche Creek, are within the known geographic range of California tiger salamander (CTS), and there may be suitable breeding and dispersal habitat within the vicinity of the Plan Area. CTS breed and develop in vernal and seasonal pools and stock ponds in grassland, woodland, and scrub habitat types and have been determined to be physiologically capable of dispersing up to approximately 1.3 miles from seasonally flooded wetlands (Searcy and Shaffer 2011). CTS have also been identified occupying disturbed agricultural areas located within 1.3 miles of higher quality breeding habitat, and there may be the potential for CTS to disperse within certain DFAs.

As the DPEIR determined that CTS were absent from the Plan Area, due to a lack of occurrences and lack of suitable habitat, and did not include mitigation measures to mitigate for potential significant impacts to the species, CDFW reiterates the recommendation that the District coordinate with CDFW on the siting of DFAs to further avoid project-related impacts to special-status species. CDFW also recommends early consultation with CDFW well in advance of any planned development within the DFAs located west of I-5 due to the potential for CTS to occur. Finally, CDFW recommends the DPEIR include the following:

Recommended Mitigation Measure 9: CTS Habitat Assessment
CDFW recommends a qualified biologist conduct a habitat assessment to determine whether the project site contains suitable dispersal or breeding habitat for CTS. The qualified biologist would also need to conduct a robust desktop and/or field analysis to determine whether suitable breeding habitat may be present within approximately 1.3 miles of the project site.

Recommended Mitigation Measure 10: Focused CTS Protocol-level Surveys
If it is determined that suitable CTS habitat is present within the project vicinity, CDFW recommends that a qualified biologist conduct protocol-level surveys in accordance with the USFWS “Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander” (USFWS 2003) at the appropriate time of year to determine the existence and extent of CTS breeding and refugia habitat. The protocol-level surveys for CTS require more than one survey season and are dependent upon sufficient rainfall to complete. As a result, consultation with CDFW is recommended well in advance of beginning the surveys and prior to any planned vegetation- or ground-disturbing activities. CDFW advises that the protocol-level survey include a 100-foot buffer around the project site in all areas of wetland and upland habitat that could support CTS. Please be advised that protocol-level survey results are viable for two years after the results are reviewed by CDFW.

Recommended Mitigation Measure 11: CTS Avoidance Buffer
If CTS protocol-level surveys as described in Recommended Mitigation Measure 8 are not conducted, CDFW advises that a minimum 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable upland refugia habitat within and/or adjacent to the project site. Further, CDFW recommends potential or known breeding habitat within and/or adjacent to the project site be delineated with a minimum 250-foot no-disturbance buffer. Both upland burrow and wetland breeding no-disturbance buffers are intended to minimize impacts to CTS habitat and avoid take of individuals.

Recommended Mitigation Measure 12: CTS Take Authorization
If through surveys it is determined that CTS are occupying or have the potential to occupy the project site, consultation with CDFW is warranted to determine if the

project can avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA. As stated above, in the absence of protocol surveys, the applicant can assume presence of CTS within the project site and obtain an ITP from CDFW.

Burrowing Owl

The California Fish and Game Commission (FGC) approved burrowing owl (BUOW) as a candidate for potential listing as a protected species under CESA on October 10, 2024, and published these findings in the California Regulatory Notice Register (Notice Register) on October 25, 2024. As such, BUOW is now considered a candidate under CESA and receives the same legal protection afforded to an endangered or threatened species (Fish & G. Code, §§ 2074.2 & 2085).

The DPEIR currently acknowledges the presence of suitable BUOW habitat throughout the Plan Area and provides Mitigation Measure BIO-9 to mitigate for potential significant impacts to BUOW. Measure BIO-9 discusses BUOW survey, avoidance, and minimization measures and states:

"(a). Pre-Construction Surveys for Burrowing Owl. Pre-construction surveys for burrowing owls shall be conducted by a qualified biologist no more than 14 days in advance of the on-set of ground-disturbing activity at the project site. These surveys shall be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012) or the most recent CDFW guidelines. The surveys shall cover all areas of suitable burrowing owl habitat within the project site.

(b). Avoidance of Active Burrowing Owl Nests During Breeding Season. If pre-construction surveys are undertaken during the breeding season (February through August) and active nest burrows are located within or near construction or decommissioning zones, a construction-free buffer of 250 feet shall be established around all active owl nests. These buffer zones shall be enclosed with temporary fencing, and construction equipment and workers shall not be allowed to enter the enclosed setback areas. The buffer zones shall remain in place for the duration of the breeding season.

(c). Avoidance of Occupied Burrows During Non-Breeding Season, and Passive Relocation of Burrowing Owls. During the non-breeding season (September through January), any burrows occupied by resident owls in areas planned for construction or decommissioning disturbance shall be protected by a construction-free buffer with a radius of 150-250 feet around each burrow, with the required buffer distance to be determined in each case by a qualified biologist. Passive relocation of resident owls is not recommended by CDFW where it can be avoided. Given recent change in the

burrowing owl's status to a state candidate species for listing, an ITP would likely be required to conduct passive relocation."

CDFW does not concur that Mitigation Measure BIO-9 is sufficient to mitigate for potential significant impacts to BUOW and recommends the DPEIR include the following:

Recommended Mitigation Measure 13: BUOW Preconstruction Surveys
CDFW recommends that focused surveys, following the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report) (CDFG 2012), be conducted the survey season immediately prior to construction. Please note that the 2012 Staff Report necessitates multiple surveys prior to the initiation of construction.

Recommended Mitigation Measure 14: BUOW Avoidance Buffer
Should a BUOW or known BUOW den (active or inactive) be detected, either during preconstruction surveys or construction activities, CDFW recommends that no-disturbance buffers, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012), be implemented prior to and during any ground-disturbing activities. CDFW also recommends that these buffers be implemented for both wintering and breeding BUOW.

Recommended Mitigation Measure 15: BUOW Take Authorization
If a BUOW or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the 2012 Staff Report on Burrowing Mitigation are not feasible, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Crotch's Bumble Bee

The Plan Area is within the known geographic range of Crotch's bumble bee (CBB) and the DPEIR currently proposes Mitigation Measure BIO-5 to mitigate for potential impacts to CBB. CDFW concurs with portions of Mitigation Measure BIO-5 but recommends the CBB surveys be conducted during the blooming period immediately prior to construction, following the full protocol outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) guidance document.

Additionally, Mitigation Measure BIO-5 (c) states: "Intensive Surveys and Take Avoidance. If Crotch's bumble bees are observed on the site, intensive surveys to locate underground nests shall be conducted. If an underground nest is located, individuals at the nest shall be photographed to confirm species. If the underground nest is confirmed to be occupied by Crotch's bumble bees, the nest shall be flagged and

a 25-foot exclusion zone established around the nest. An avoidance plan shall be developed in consultation with CDFW prior to any project work and/or vegetation removal or other ground disturbance within the 25-foot exclusion zone."

CDFW does not concur that this portion of the measure would be sufficient to avoid impacts to CBB. If CBB is detected, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement project activities and avoid take. Any detection of CBB prior to or during project implementation warrants consultation with CDFW to discuss how to avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

California Red-legged Frog

A number of proposed DFAs, particularly those within the annual grassland and agricultural habitats west of I-5 near Panoche Creek, are within the known geographic range of California red-legged frog (CRLF) and there may be suitable breeding and dispersal habitat within the vicinity of the Plan Area. Additionally, CRLF are known to occur downstream and upstream of Little Panoche Reservoir within Panoche Creek and are likely present within the reservoir as well.
As the DPEIR did not address potential project-related impacts to CRLF and did not include mitigation measures to mitigate for potential significant impacts to the species, CDFW reiterates the recommendation that the District coordinate with CDFW on the siting of DFAs to further avoid project-related impacts to special-status species. CDFW also recommends early consultation with CDFW well in advance of any planned development within the DFAs located west of I-5 due to the potential for CRLF to occur. Finally, CDFW recommends the DPEIR include the following for projects tiered from this Plan that occur west of I-5:

Recommended Mitigation Measure 16: CRLF Surveys
CDFW recommends that a qualified biologist conduct focused surveys for CRLF within areas of suitable habitat adjacent to or within the project site 48-hours prior to initiating project construction (two night surveys immediately prior to construction or as otherwise required by USFWS in accordance with the "Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog" (USFWS 2005) to determine if CRLF are within or adjacent to the project site.

Recommended Mitigation Measure 17: CRLF Avoidance
If any CRLF are found during preconstruction surveys or at any time during construction, CDFW recommends avoidance whenever possible via delineation and observance of a 50-foot no-disturbance buffer around CRLF and their burrows. If

CRLF are observed on the project site, CDFW also recommends that project activities in the immediate vicinity cease, allowing individuals to leave the project site on their own accord. Finally, CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends a qualified biologist monitoring construction activity daily for CRLF.

Special-Status Plants

DPEIR acknowledges the potential for special status plant species to occur within the Plan Area and proposes Mitigation Measure BIO-1 to mitigate for potentially significant impacts. CDFW concurs with Mitigation Measure BIO-1, which requires a qualified biologist to conduct a habitat assessment and preconstruction survey, but recommends that surveys following the entirety of the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). This protocol, which is intended to maximize detectability, may necessitate multiple surveys and includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. Please note that adverse conditions from yearly weather patterns may prevent botanical field surveyors from determining the presence of, or accurately identifying, some special status plants in the surveyed area. Disease, drought, predation, fire, herbivory, or other disturbance may also preclude presence or identification of special status plants in any given year. Visiting the survey site in more than one year increases the likelihood of detection. If special-status plants are identified during surveys, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation. If State endangered, threatened, or rare plants are identified during special status plant surveys and take cannot be avoided, then to ensure compliance with CESA and the Native Plant Protection Act (NPPA), consultation with CDFW for acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) and/or California Code of Regulations, Title 14, section 786.9, subdivision (b), is necessary to comply with CESA and the NPPA.

Editorial Comments and/or Suggestions

Wildlife Movement and Compensatory Mitigation: As noted above, portions of the Plan Area and vicinity support significant biological resources and contains habitat connections and supports movement across the broader landscape, sustaining both transitory and permanent wildlife populations. In particular, the northern portion of the Plan Area, which includes DFAs in close proximity to the Mendota WA, Alkali Sink Ecological Reserve, and Alkali Sink Conservation Bank, functions as a critical wildlife linkage for many wildlife species and is the only remaining natural habitat in the vicinity.

In addition, the location and size of the Plan Area, and overall size of the DFAs would likely require the need for the conservation of offsite mitigation lands for certain projects to compensate for project-specific impacts. CDFW recommends that any offsite mitigation land acquisition and preservation be focused on natural habitats adjacent to conserved lands such as the Mendota WA and Alkali Sink Ecological Reserve, or retired agricultural lands capable of restoration and/or wildlife connectivity enhancement adjacent to these areas. Prioritizing habitat protection in these areas would further enhance the overall habitat connectivity within the Plan Area.

Additionally, CDFW recommends that the District coordinate with CDFW for recommendations on DFA siting, site permeability, and habitat management, to adequately maintain and ideally enhance connectivity within the greater landscape.

Battery Energy Storage System Evaluation: The proposed Plan notes that projects tiered from this Plan may install BESS projects throughout the Plan Area. CDFW is aware of recent catastrophic fires resulting from lithium-ion BESS operations at BESS facilities within California. As such, these BESS systems warrant a careful evaluation for potential fire-related impacts to biological resources within and surrounding the project sites, particularly within nearby natural habitats. Lithium-ion BESS fires can release an array of toxic chemicals into the air (Mylenbusch et al. 2023). In addition to potential human health concerns, these emissions may also impact air quality for nearby wildlife, and harmful particulate matter may settle into soils or waterways, possibly affecting soil-dwelling organisms, burrowing mammals, and aquatic life. Concentrations of toxic gases and particulates may be highest in the immediate vicinity of the fire, and the risk of explosion exists, making the area hazardous for firefighters. Further, the use of water for fire suppression is not always appropriate and may exacerbate the fire.

As such, CDFW recommends the DPEIR include a thorough analysis of typical BESS design and evaluate the potential impacts of a catastrophic BESS fires on biological resources, particularly for DFAs sited in the vicinity of natural or conserved lands. CDFW also strongly recommends BESS projects be sited away from natural or conserved lands and reiterates the recommendation that the District coordinate with CDFW on the siting of DFAs to further avoid project-related impacts to special-status species from catastrophic BESS fires. CDFW also recommends that the DPEIR incorporate project-specific mitigation measures that would be implemented to reduce the risk of catastrophic fire, and to carefully consider BESS siting, spacing, battery life and degradation, and the most appropriate fire protection/suppression system.

Wildlife Friendly Fencing: CDFW concurs with the fencing designed detailed in the DPEIR to increase permeability for wildlife but recommends that perimeter fencing be installed with a four (4) to six (6) inch gap from the bottom of the fencing material and knuckled back to form a smooth edge and allow for optimum wildlife permeability.

Lake and Streambed Alteration: Projects tiered form this plan which include activities that substantially change the bed, bank, and channel of any river, stream, or lake are subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation): (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial and may include those that are highly modified such as canals and retention basins.

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (LSAA); therefore, if the CEQA document approved for the project does not adequately describe the Plan and its impacts on lakes or streams, a subsequent CEQA analysis may be necessary for LSAA issuance. For information on notification requirements, please refer to CDFW's website (https://wildlife.ca.gov/Conservation/LSA) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593.

Nesting birds: CDFW encourages that project ground-disturbing activities occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the nesting season (February 1st through September 15th), the project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Code sections as referenced above.

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

If continuous monitoring of identified nests by a qualified biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-

listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is a compelling biological or ecological reason to do so, such as when the project site would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

Artificial Lighting: Installation of outdoor artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration (Longcore and Rich 2004, Miller 2006, Nightingale et al. 2006, Perry et al. 2008, Stone et al. 2009). Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Projects tiered from this Plan could result in disruption of wildlife behavior, inadvertent injury, or mortality, particularly in those project areas sited near sensitive or conserved natural habitat. CDFW recognizes the current discussion on lighting within the DPEIR and recommends the measures proposed be incorporated for projects tiered from this Plan. CDFW also recommends that project lighting use long-wavelength light sources. In addition, CDFW recommends that lighting is not installed in or immediately adjacent to ecologically sensitive areas (e.g., streams, wetlands, and habitat used by special-status species, such as nesting/roosting sites and riparian corridors) and the use of the white/blue wavelengths of the light spectrum be 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 surveys to the CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

The Plan, 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 Plan approval to be operative,

vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the DPEIR to assist the District in identifying and mitigating Plan impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table (Attachment 1) which corresponds with the recommended mitigation measures in this comment letter.

If you have any questions, please contact Ren Cotter, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 767-0956 or by electronic mail at Ren.Cotter@wildlife.ca.gov.

Sincerely,

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

cc: State Clearinghouse
Office of Land Use and Climate Innovation
State.Clearinghouse@lci.ca.gov

REFERENCES

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. Sacramento, California, USA.

California Department of Fish and Wildlife. 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. California Department of Fish and Wildlife. Sacramento, California, USA.

California Department of Fish and Wildlife. 2023. Survey considerations for California endangered species act candidate bumble bee species. Sacramento, California, USA.

Grinnell, J. and A. Miller. The Birds of California. Cooper Ornithological Club, Berkeley, California. 1944, 608 p.

Longcore, T. and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment, 2:191–198.

Miller, M. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor, 108:130–139.

Mylenbusch, I., K. Claffey, and B.Chu. Hazards of lithium-ion battery energy storage systems (BESS), mitigation strateies, minimum requirements, and best practices. Process Safety Progress, 2023:1–10.

Nightingale, B., T. Longcore, and C. Simenstad. 2006. Artificial night lighting and fishes. Pages 257–276 *in* C. Rich and T. Longcore, editors. Ecological consequences of artificial light at night. Island Press, Washington, D.C., USA.

Perry, G., B. Buchanan, R. Fisher, M. Salmon, and S. Wise. 2008. Effects of night lighting on urban reptiles and amphibians. Chapter 16 in: Urban Herpetology: Ecology, Conservation and Management of Amphibians and Reptiles in Urban and Suburban Environments. J. Mitchell, R. Jung Brown and B. Bartholomew (ed.). Herpetological Conservation, 3:211-228.

Searcy, C. and H. Shaffer. 2011. Determining the migration distance of a vagile vernal pool specialist: How much land is required for conservation of California tiger salamanders? California State University, Chico, California, USA.

Stone, E., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology, 19:1123–1127.

U. S. Fish and Wildlife Service. 1999. Draft Recovery Plan for the Giant Garter Snake. Sacramento, California, USA

U. S. Fish and Wildlife Service. 2003. Interim guidance on site assessment and field surveys for determining presence or a negative finding of the California tiger salamander. Sacramento, California, USA.

U.S. Fish and Wildlife Service. 2005. Revised guidance on site assessment and field surveys for the California red-legged frog. Sacramento, California, USA.

U. S. Fish and Wildlife Service. 2011. Standard Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California.

Weintraub, K., T. George, and S. Dinsmore. 2016. Nest survival of tricolored blackbirds in California's Central Valley. Condor 1.