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July 28, 2025

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**Subject: Chevron Lost Hills Solar to Hydrogen Project (Project)
Notice of Preparation (NOP)
State Clearinghouse No. 2025061336**

Dear Jack Foster:

The California Department of Fish and Wildlife (CDFW) received a NOP from Kern County (County) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

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

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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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 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. 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 may 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 for the Project.

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, sections 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 Project.

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PROJECT DESCRIPTION SUMMARY

Proponent: Chevron New Energies, a division of Chevron U.S.A. Inc.

Objective: The proposed Project is construction and operation of a hydrogen (H₂) production facility with the capacity to generate approximately 2.2 tons of gaseous H₂ per day using electrolysis (i.e., using electricity to divide water into H₂ and oxygen). The process would utilize electricity generated at the existing Lost Hills Solar Field and treated wastewater from nearby Chevron oil fields. The H₂ facility would consist of containerized units located outdoors and occupy an approximately 5.74-acre footprint within an existing storage yard. Construction of a new 12-kilovolt overhead power distribution line from an existing onsite substation, including the installation of approximately 12 wood poles on Chevron-owned land, would be required to provide power to the Project. Vegetation clearing would occur within a 25-foot radius of each pole as well as a 1.4-acre work area immediately west of the Project site to facilitate power line undergrounding. Once the facility is operational, the produced H₂ would be loaded into tube trailers and transported to end users by truck, with an estimated four trips occurring per day.

Location: The proposed Project would be located on an approximately 8.93-acre portion of a larger 80-acre parcel of private land in northwestern Kern County (Assessor's Parcel Number 069-410-26), within Chevron's Lost Hills Oil Field and adjacent to the Lost Hills Solar Field. The Project site is approximately 1 mile southwest of the unincorporated community of Lost Hills, 1 mile south of State Route 46, and 3 miles west of Interstate 5.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the Draft Environmental Impact Report (DEIR) prepared for this Project.

As stated in the NOP, the main Project site where the H₂ facility would be located is an existing storage yard (bare ground), and aerial imagery reveals that the new power distribution line may be installed within a limited amount of grassland and/or scrub habitat. Based on a review of the Project description, California Natural Diversity Database (CNDDDB) records, and aerial imagery of the Project site and surrounding habitat, the Project is within the geographic range of and could impact several special-status animal and plant species including, but not limited to, those listed in Attachment 1.

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In order to support the adequate assessment of potential impacts to biological resources in the DEIR, CDFW recommends that a qualified biologist perform relevant database reviews and other research of the Project site and surrounding area, then conduct focused habitat assessments and/or focused biological surveys during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project site.

CDFW recommends this initial work be documented within the DEIR and used to inform further efforts that may be needed thereafter including the need for additional protocol surveys and/or the development of avoidance, minimization, and/or mitigation measures. This information and analysis may then be used in the DEIR to consider the development of modified or new Project alternatives to avoid and minimize potentially significant environmental impacts on the biological environment. This information is critical to make an informed decision during the CEQA process and to ensure Project compliance with CESA, Fish and Game Code, and other applicable State and federal laws and regulations.

Giant Kangaroo Rat

The Project site is within the known geographic range of the State and federally endangered giant kangaroo rat (*Dipodomys ingens*; GKR). Recent occurrences of GKR were documented approximately 13 miles from the Project site (CDFW 2025). Suitable GKR habitat includes grassland and scrub communities with sandy-loam soils and gentle slopes vegetated with annual grasses and scattered shrubs. A portion of the Project site, particularly the route for the new power distribution line, as well as surrounding areas, may contain habitat for GKR.

To determine if GKR currently occupy the Project site, CDFW recommends that focused protocol-level live trapping surveys be conducted in areas of suitable GKR habitat and that a trapping plan for determining presence of GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. The trapping plan should follow the U.S Fish and Wildlife Service (USFWS) "Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats" (2013). In addition to conducting focused GKR surveys, CDFW recommends the DEIR include the following measure:

Recommended Mitigation Measure 1: GKR Avoidance Buffer

CDFW recommends a minimum 50-foot no-disturbance buffer be employed around all burrows that could be used by GKR. If a minimum 50-foot no-disturbance buffer cannot be maintained, consultation with CDFW is warranted to determine if the Project can avoid take or if take authorization is necessary as described below.

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Recommended Mitigation Measure 2: GKR Consultation

CDFW recommends that consultation with CDFW occur to discuss how to implement the Project and avoid take over the life of the Project. 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.

Blunt-Nosed Leopard Lizard

The Project site is within the known geographic range of the State and federally endangered and State fully protected blunt-nosed leopard lizard (*Gambelia sila*; BNLL), and numerous historical and recent occurrences are noted within 2 to 10 miles of the Project site (CDFW 2025). Suitable BNLL habitat includes flat or gently sloping areas of grassland and shrub habitat that contain required habitat elements, such as small mammal burrows and open areas for basking. BNLL are also known to utilize open space patches between suitable habitat features including disturbed sites and unpaved access roadways. Based on aerial imagery, the Project site and adjacent areas may contain suitable habitat for BNLL.

As there is a strong likelihood that BNLL could be impacted by Project activities, CDFW recommends that a qualified biologist conduct protocol surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019) as part of the biological technical studies conducted in support of the DEIR. This survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground disturbance will not result in take of this fully protected species.

CDFW also recommends the DEIR include the following:

Recommended Mitigation Measure 3: BNLL Surveys

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that a qualified biologist conduct additional protocol surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019), prior to the initiation of any ground-disturbing activities that may occur as part of the Project.

Recommended Mitigation Measure 4: BNLL Take Avoidance

CDFW also strongly recommends that consultation with CDFW occur to discuss how to implement ground-disturbing activities and avoid take if any BNLL individuals, known burrows, or egg clutch sites are detected during surveys or during construction of the Project.

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San Joaquin Kit Fox

The Project site is within the known geographic range of the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*; SJKF), and there are numerous occurrences of SJKF in the Project vicinity, with several historical occurrences reported within 2 miles of the Project site (CDFW 2025). SJKF may be attracted to both construction materials (pipes, etc.) and construction footprints due to the type and level of activity (excavation, etc.) and the loose, friable soils that are created because of intensive ground disturbance. SJKF will readily use pipes, culverts, shipping containers, portable buildings, and stacks of materials (e.g., I-beams, wooden boards) with spaces within or underneath them for denning (Cypher et al. 2023). Therefore, as a mitigation measure during construction, CDFW recommends thoroughly inspecting all construction materials or structures with sufficient spaces for SJKF before these materials are used or moved in any way. To help deter SJKF from creating dens under construction materials, CDFW recommends elevating materials one foot or more off the ground using k-rails or similar structures.

As there is a strong likelihood that SJKF could utilize the Project site over the life of the Project and be impacted by Project activities, CDFW recommends that a qualified biologist assess the presence/absence of SJKF dens by conducting focused surveys to detect SJKF dens and their sign in all areas of the Project site, as well as a 500-foot buffer around the Project site, as part of the biological studies conducted in support of the DEIR.

CDFW also recommends the DEIR include the following:

Recommended Mitigation Measure 5: SJKF Pre-Construction Surveys

Prior to the initiation of Project ground-disturbing activities, CDFW recommends assessing presence/absence of SJKF by conducting focused SJKF den surveys. CDFW recommends conducting these surveys over the entirety of the Project site, as well as a 500-foot buffer around the Project site, no less than 14 days and no more than 30 days prior to beginning ground- and/or vegetation-disturbing activities.

Recommended Mitigation Measure 6: SJKF Avoidance Buffer

CDFW recommends implementing no-disturbance buffers, as described in the 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.

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Recommended Mitigation Measure 7: SJKF Take Authorization

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

San Joaquin Antelope Squirrel

The Project site is within the known geographic range of the State threatened San Joaquin antelope squirrel (*Ammospermophilus nelsoni*; SJAS), and several occurrences were documented within the Project vicinity, including one historical occurrence that overlaps the Project site (CDFW 2025). SJAS are also known to occupy habitat on the Semitropic Ecological Reserve approximately 3 miles northeast of the Project site. Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Based on aerial imagery, the Project site and surrounding areas may contain suitable habitat for SJAS.

As there is a strong likelihood that SJAS could be impacted by Project activities, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS in areas of suitable habitat as part of the biological studies conducted in support of the DEIR. In addition to conducting a habitat assessment and focused SJAS surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 8: SJAS Avoidance Buffer

CDFW recommends a minimum 50-foot no-disturbance buffer be employed around all burrows that could be used by SJAS. If a minimum 50-foot no-disturbance buffer cannot be maintained, consultation with CDFW is warranted to determine if the Project can avoid take or if take authorization is necessary as described below.

Recommended Mitigation Measure 9: SJAS Consultation

Due to the strong likelihood that SJAS could be impacted by Project activities, CDFW recommends that consultation with CDFW occur to discuss how to implement the Project and avoid take over the life of the Project. 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.

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Swainson's Hawk

The Project is within the known geographic range of the State threatened Swainson's hawk (*Buteo swainsoni*; SWHA), a historical occurrence overlaps the Project site, and multiple recent occurrences were documented as close as 3.3 miles to the Project site (CDFW 2025). SWHA are known to breed within the Central Valley of California and prefer to nest and forage in alfalfa, fallow fields, field crops, and grassland habitats with a sufficient source of small mammals (CDFG 1994). Based on aerial imagery, the Project site and adjacent areas may contain suitable habitat for SWHA foraging.

As SWHA have the potential to use the Project site, CDFW recommends that a qualified biologist conduct surveys for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) as part of the biological technical studies conducted in support of the DEIR.

In addition to conducting SWHA surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 10: SWHA Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys, following the survey methodology developed by the SWHA Technical Advisory Committee, be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 11: SWHA Avoidance Buffer

If Project-specific 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 0.5-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 12: SWHA Take Authorization

In the event an active SWHA nest is detected, and a 0.5-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

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authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is necessary to comply with CESA.

Fully Protected Raptors

The State fully protected golden eagle (*Aquila chrysaetos*; GOEA) and white-tailed kite (*Elanus leucurus*; WTKI) have the potential to nest and/or forage in the Project vicinity (CDFW 2025). CDFW recommends that a qualified biologist conduct a habitat assessment for fully protected raptors within the Project site and a 0.5-mile buffer surrounding the Project site as part of the biological studies conducted in support of the DEIR. If suitable habitat is determined to be present, CDFW recommends that focused surveys be conducted for GOEA and WTKI and that surveys be conducted in accordance with protocols developed by the USFWS for GOEA (USFWS 2010). If surveys indicate the presence or potential presence of fully protected raptors, consultation with the CDFW is recommended for guidance on the development of take avoidance measures.

Western Burrowing Owl

The California Fish and Game Commission approved western burrowing owl (*Athene cunicularia hypugaea*; 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 on October 25, 2024. As such, BUOW is now a candidate under CESA and receives the same legal protection afforded to an endangered or threatened species (Fish & G. Code, §§ 2074.2 & 2085).

The Project site is within the known geographic range of BUOW, and there are numerous recent and historical occurrences located 1 to 10 miles from the Project site, (CDFW 2025). BUOW typically inhabit open grasslands and desert scrublands containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. BUOW are also known to occupy agricultural habitats and may attempt to use “man-made burrows” such as pipes or culverts. Based on aerial imagery the Project site and adjacent areas likely contain suitable habitat for BUOW nesting and foraging.

As there is a strong likelihood that BUOW could be impacted by Project activities, CDFW recommends assessing presence/absence of BUOW on the Project site, as well as a 500-meter buffer surrounding the Project site, by having a qualified biologist conduct surveys following the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report; CDFG 2012) as part of the biological studies conducted in support of the DEIR.

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In addition to conducting BUOW surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 13: BUOW Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys following 2012 Staff Report be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 14: BUOW Avoidance Buffer

Should a BUOW individual or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, CDFW recommends that no-disturbance buffers, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation, 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 individual or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the 2012 Staff Report are not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. Due to the strong likelihood that BUOW could be impacted by Project activities, CDFW recommends that consultation with CDFW occur prior to the initiation of Project activities. 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 Project site is within the known geographic range of the State candidate Crotch's bumble bee (*Bombus crotchii*; CBB), which inhabit a variety of habitats, including grasslands, scrublands, openings in woodlands, and areas with bare ground such as vacant lots, dirt roads, and levees (Xerces Society et al. 2018). CBB use requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses, which may be present in or near the Project site.

As CBB may be present within the Project site, CDFW recommends a qualified biologist conduct a habitat assessment to determine if the Project site and the immediate surrounding vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual

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grasses, brush piles, old bird nests, dead trees, and hollow logs should be documented as part of the assessment. If suitable habitat is identified, CDFW recommends a qualified biologist conduct focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) as part of the biological studies conducted in support of the DEIR.

In addition to conducting a CBB habitat assessment and surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 16: CBB Surveys Prior to Construction

Depending on the time between the initial survey efforts, if potentially suitable habitat is identified and regardless of what time of year Project activities will be conducted, CDFW recommends that a qualified biologist conduct focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023).

Recommended Mitigation Measure 17: CBB Avoidance

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 CBB are detected during surveys and 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.

Recommended Mitigation Measure 18: CBB Take Authorization

If take cannot be avoided, CDFW recommends acquiring an ITP pursuant to Fish and Game Code Section 2081(b), prior to initiating ground-disturbing activities.

State Species of Special Concern

The Project site is within the known geographic range of several State species of special concern (SSC) including, but not limited to, the American badger (*Taxidea taxus*), Buena Vista Lake ornate shrew (*Sorex ornatus relictus*; also federally endangered), short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus hudsonius*), coast horned lizard (*Phrynosoma blainvillii*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), and western

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spadefoot (*Spea hammondi*; federally proposed threatened). Each of these species has been documented within the vicinity of the Project site (CDFW 2025). To evaluate Project-related impacts to State SSC, CDFW recommends that a general habitat assessment be conducted as part of the biological technical studies conducted in support of the DEIR, to determine whether suitable habitat is present within the Project site. If suitable habitat is present, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

Special-Status Plants

Several special-status plant species are documented in the vicinity of and may occur within the Project site including, but not limited to, the State and federally endangered and California Rare Plant Rank (CRPR) 1B.1 California jewelflower (*Caulanthus californicus*); the CRPR 1B.1 Alkali-sink goldfields (*Lasthenia chrysantha*), Coulter's goldfields (*Lasthenia glabrata* ssp. *Coulteri*), King's gold (*Tropidocarpum californicum*), and lesser saltscale (*Atriplex minuscula*); the CRPR 1B.2 and federally endangered Kern mallow (*Eremalche parryi* ssp. *kernensis*) and San Joaquin woollythreads (*Monolopia congdonii*); and the CRPR 1B.2 California alkali grass (*Puccinellia simplex*), Lost Hills crownscale (*Atriplex coronata* var. *vallicola*), Munz's tidy-tips (*Layia munzii*), and recurved larkspur (*Delphinium recurvatum*) (CDFW 2025).

As such, CDFW recommends that the Project site be surveyed for special-status plants by a qualified botanist following the Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. 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.

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Editorial Comments and/or Suggestions

Federally Listed Species: CDFW recommends consulting with the USFWS regarding potential impacts to federally listed species including, but not limited to, GKR, BNLL, SJKF, Buena Vista Lake ornate shrew, western spadefoot, California jewelflower, Kern mallow, and San Joaquin woollythreads. Take under the Federal Endangered Species Act (ESA) is more broadly defined than CESA; take under the ESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with the ESA is advised well in advance of any Project activities.

Nesting Birds: CDFW encourages that Project ground-disturbing activities occur during the bird non-nesting season; however, if ground- 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.

If the nesting season cannot be avoided, CDFW recommends that a qualified biologist conduct a pre-construction 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 of 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.

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Wildfire: It is CDFW's understanding that H₂ in vapor form is highly flammable and explosive. As the Project site is located in a semi-arid rural area with considerable habitat for special-status species, the risk of wildfire is a concern for biological resources and should be thoroughly evaluated in the DEIR. CDFW recommends the County consider potential impacts to special-status species and sensitive habitats, in addition to human health and safety, when developing mitigation measures related to wildfire.

CNDDDB: Please note that the CNDDDB is populated by records through voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. In order to adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist during the appropriate survey period(s) using the appropriate protocol survey methodology are warranted in order to determine whether or not any special-status species are present at or near the Project site.

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). Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality.

CDFW recommends that the DEIR for the Project include an analysis of artificial lighting as it relates to biological resources and incorporate enforceable mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. Potentially feasible mitigation measures include motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread of light downward; and use of long-wavelength light sources. In addition, CDFW recommends that lighting is not installed in 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.

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(e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to the CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to the CNDDDB can be found at the following link: <https://www.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

CDFW appreciates the opportunity to comment on the NOP to assist the County in identifying and mitigating Project impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table (Attachment 2) 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:

E9964E60293D40A...

For Julie A. Vance
Regional Manager

ATTACHMENTS (2)

ec: State Clearinghouse
Governor's Office of Planning and Research
state.clearinghouse@lci.ca.gov

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REFERENCES

- California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. Sacramento, California, USA.
- 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. Sacramento, California, USA.
- California Department of Fish and Wildlife. 2019. Approved survey methodology for the blunt-nosed leopard lizard. Sacramento, California, USA.
- California Department of Fish and Wildlife. 2023. Survey considerations for California Endangered Species Act candidate bumble bee species. Sacramento, California, USA.
- California Department of Fish and Wildlife. 2025. Biogeographic information and observation system (BIOS). <https://www.wildlife.ca.gov/Data/BIOS>. Accessed 03 July 2025.
- Cypher B., E. Noel, E. Kelly, T. Westall, N. Deatherage, and A. Gabaldon. 2023. Response of San Joaquin kit foxes to road construction sites. California State University-Stanislaus – Endangered Species Recovery Program, Turlock, California, USA.
- 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.
- 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. 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. C. Mitchell, R. E. Jung Brown and B. Bartholomew (ed.). *Herpetological Conservation*, 3:211-228.

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

Swainson's Hawk Technical Advisory Committee (SWHA TAC). 2000. Recommended timing and methodology for Swainson's hawk nesting surveys in the central valley of California. Swainson's Hawk Technical Advisory Committee.

U.S. Fish and Wildlife Service. 2010. Golden eagle inventory and monitoring protocols; and other recommendations. Division of Migratory Bird Management, Arlington, Virginia, 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. Sacramento, California, USA.

U.S. Fish and Wildlife Service. 2013. Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats. Sacramento, California, USA.

Xerces Society for Invertebrate Conservation (Xerces Society), Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and game commission to list the Crotch's bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October 2018.

Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
SPECIAL-STATUS SPECIES TABLE**

**PROJECT: Chevron Lost Hills Solar to Hydrogen Project by Chevron
New Energies**

SCH No.: 2025061336

Common Name	Scientific Name	Status	
		State	Federal
Giant kangaroo rat	<i>Dipodomys ingens</i>	E	E
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	E; FP	E
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	T	E
San Joaquin antelope squirrel	<i>Ammospermophilus nelsoni</i>	T	None
Swainson's hawk	<i>Buteo swainsoni</i>	T	None
Golden eagle	<i>Aquila chrysaetos</i>	FP	None
White-tailed kite	<i>Elanus leucurus</i>	FP	None
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	C	None
Crotch's bumble bee	<i>Bombus crotchii</i>	C	None
American badger	<i>Taxidea taxus</i>	SSC	None
Buena Vista Lake ornate shrew	<i>Sorex ornatus relictus</i>	SSC	E
Short-nosed kangaroo rat	<i>Dipodomys nitratooides brevinasus</i>	SSC	None
Tulare grasshopper mouse	<i>Onychomys torridus tularensis</i>	SSC	None
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC	None
Northern harrier	<i>Circus hudsonius</i>	SSC	None
Coast horned lizard	<i>Phrynosoma blainvillii</i>	SSC	None
San Joaquin coachwhip	<i>Masticophis flagellum ruddocki</i>	SSC	None
Western spadefoot	<i>Spea hammondi</i>	SSC	PT
California jewelflower	<i>Caulanthus californicus</i>	E; 1B.1	E
Alkali-sink goldfields	<i>Lasthenia chrysantha</i>	1B.1	None
Coulter's goldfields	<i>Lasthenia glabrata ssp. Coulteri</i>	1B.1	None
King's gold	<i>Tropidocarpum californicum</i>	1B.1	None
Lesser saltscale	<i>Atriplex minuscula</i>	1B.1	None
California alkali grass	<i>Puccinellia simplex</i>	1B.2	None

Kern mallow	<i>Eremalche parryi</i> ssp. <i>kernensis</i>	1B.2	E
Lost Hills crownscale	<i>Atriplex coronata</i> var. <i>vallicola</i>	1B.2	None
Munz's tidy-tips	<i>Layia munzii</i>	1B.2	None
Recurved larkspur	<i>Delphinium recurvatum</i>	1B.2	None
San Joaquin woollythreads	<i>Monolopia congdonii</i>	1B.2	E
<p>E= Endangered; T=Threatened; FP= Fully Protected; C= Candidate for listing as Threatened and/or Endangered; SSC= Species of Special Concern; PT=Proposed Threatened; 1B.1, 1B.2= California Rare Plant Ranks</p>			

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Attachment 2

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

**PROJECT: Chevron Lost Hills Solar to Hydrogen Project by Chevron
New Energies**

SCH No.: 2025061336

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>Before Disturbing Soil or Vegetation</i>	
GKR	
Recommended Mitigation Measure 2: GKR Consultation	
BNLL	
Recommended Mitigation Measure 3: BNLL Surveys	
Recommended Mitigation Measure 4: BNLL Take Avoidance	
SJKF	
Recommended Mitigation Measure 5: SJKF Pre-Construction Surveys	
Recommended Mitigation Measure 7: SJKF Take Authorization	
SJAS	
Recommended Mitigation Measure 9: SJAS Consultation	
SWHA	
Recommended Mitigation Measure 10: SWHA Surveys Prior to Construction	
Recommended Mitigation Measure 12: SWHA Take Authorization	
BUOW	
Recommended Mitigation Measure 13: BUOW Surveys Prior to Construction	
Recommended Mitigation Measure 15: BUOW Take Authorization	
CBB	
Recommended Mitigation Measure 16: CBB Surveys Prior to Construction	
Recommended Mitigation Measure 18: CBB Take Authorization	

<i>During Construction</i>	
GKR	
Recommended Mitigation Measure 1: GKR Avoidance Buffer	
SJKF	
Recommended Mitigation Measure 6: SJKF Avoidance Buffer	
SJAS	
Recommended Mitigation Measure 8: SJAS Avoidance Buffer	
SWHA	
Recommended Mitigation Measure 11: SWHA Avoidance Buffer	
BUOW	
Recommended Mitigation Measure 14: BUOW Avoidance Buffer	
CBB	
Recommended Mitigation Measure 17: CBB Avoidance	