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September 28, 2020

Kenneth Bonesteel
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Subject: Shafter-Wasco Irrigation District Voluntary Rotational Land Fallowing Program (Project)
NEGATIVE DECLARATION (ND)
State Clearinghouse No. 2020080457

Dear Mr. Bonesteel:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an ND from the Shafter-Wasco Irrigation District (SWID), as Lead Agency, for the 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 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 Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

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. Take of any fully protected species is prohibited and CDFW cannot authorize their incidental take.

PROJECT DESCRIPTION SUMMARY

Proponent: SWID is the Project applicant and Lead Agency for the purpose of CEQA.

Objective: The Project has the following primary objectives:

- Meet the goals of the Kern Groundwater Authority Groundwater Sustainability Plan.
- Support California and local water conservation goals.
- Reduce groundwater use by reducing irrigation demand.
- Facilitate future sustainability of available groundwater by improving groundwater management through implementation of a program to decrease irrigation water demands alongside the District's adopted Recharge Project.

Project Description: SWID is a member of the Kern Groundwater Authority. The Project proposes a land fallowing program to conserve water through a contractual agreement between the SWID Management Area 2 (MA-2) and volunteering agricultural water users. In exchange for financial compensation, these water users would agree not to irrigate their fields (i.e., fallow) for a defined period of one year. If landowners want to participate in additional years, they will need to reapply each year and demonstrate compliance with all agreement conditions. It is the intent of the District's proposed Project that landowners would volunteer for fallowing on a generally rotational basis, so that the burden of fallowing is distributed among all landowners to the extent possible, and within the ability of the District to compensate for the voluntary fallowing. Specifically, the Project would:

1. Provide an application mechanism for landowners who currently farm within the District MA-2 to apply for compensation for taking agricultural fields out of production for one (1) full water year from October 1 to September 30.

2. Approval for each applicant would be granted and authorized by the District's Board of Directors.
3. Allow fallowing of up to 800 acres, totaling an estimated demand reduction (savings) of approximately 2,560 acre-feet of water each year (AFY) that would remain in the groundwater aquifer.
4. Allow multiple applicants each year to total 800 acres.
5. Require landowners to reapply and be granted approval to continue fallowing their lands beyond the first year.
6. Require landowners to maintain the fallowed lands, thereby not altering or changing agricultural land use.
7. The reduced irrigation water demand from this fallowing Project would facilitate water conservation and, thereby, groundwater recovery.

The Project intends that an agricultural landowner within the District MA-2 would volunteer to participate in fallowing a portion of land. This Project is designed to be similar to other existing fallowing Projects and would include sharing, on a rotational basis, of fallowing opportunities within the current farm unit management structure within the SWID's MA-2. Project specifics would remain flexible to the extent practicable and may be amended from time to time, including subsequent CEQA review to address future changes in parameters or water demands and changes in farming practices.

The Project description states there would be no construction activities as part of the proposed Project. The activities associated with the Project would be limited to approval or denial of landowner applications to fallow their lands for one-year based on compliance with Project criteria and achievement of groundwater conservation and recovery goals consistent with KGA's Groundwater Sustainability Plan in exchange for financial compensation.

The operations associated with implementation of the Project includes the SWID budgeting for landowner compensation and staffing for field inspections and Project and contract administration. There are no SWID maintenance activities associated with the Project. However, the landowners would be responsible for on-going maintenance of the approved fallowed agricultural fields in compliance with all contractual requirements.

Part of the conditions of the Project are to maintain the fallowed fields including weed abatement. This would require discing and tilling several times within the year, thereby, not allowing new species, plant or wildlife, to reside within the fallowed fields. Once the contract is complete the landowner would resume agricultural practices.

Location: The Project site is the MA-2 portion of SWID service area, located south-southwest of the City of Shafter, Kern County. The Project is bounded by Lerdo Highway to the north, 7th Standard Road to the south, and Magnolia Avenue to the west. Portions of the Project area extend east of State Highway 43 (Enos Lane). Portions of the CDFW

Buttonwillow Ecological Reserve are located one mile west of the Project's southwestern boundary.

Timeframe: No timeframe given.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist SWID 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 CEQA document.

Aerial imagery of the Project boundary and its surroundings within the Project boundary shows Valley saltbush scrub habitat, upland grassland, and agricultural habitats. Buttonwillow Ecological Reserve, managed by CDFW, is located approximately one mile from the Project's western boundary. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDB) records, and the surrounding habitat, several special-status species could potentially be impacted by Project activities.

Project-related activities within the Project boundary including but not limited to vegetation removal, weed abatement, and discing may impact the following special-status plant and wildlife species and habitats known to occur in the area: the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State and federally endangered Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*); the State and federally endangered and State fully protected blunt-nosed leopard lizard (*Gambelia sila*); the State threatened tricolored blackbird (*Agelaius tricolor*); the State candidate for listing as endangered Crotch's bumble bee (*Bombus crotchii*); the Federally endangered and California Rare Plant Rank (CRPR) 1B.2 Kern mallow (*Eremalche parryi kernensis*); the CRPR 4.2 Hoover's eriastrum (*Eriastrum hooveri*); and the State species of special concern American badger (*Taxidea taxus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), San Joaquin pocket mouse (*Perognathus inornatus*), burrowing owl (*Athene cunicularia*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), California glossy snake (*Arizona elegans occidentalis*), and coast horned lizard (*Phrynosoma blainvillii*). Please note that the CNDDB is populated by and records voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDB but where there is suitable habitat and features capable of supporting species. Therefore, a lack of an occurrence record in the CNDDB is not tantamount to a negative species finding. In order to adequately assess any potential Project related impacts to biological resources, surveys conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) and 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 area.

CDFW recommends that the following modifications and/or edits be incorporated into the ND.

I. Project Description and Related Impact Assessment Shortcoming

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: Impacts to Valley Saltbush Scrub Habitat and Special-Status Species

Issue: Section 3.5.2 states that there are some riparian and other sensitive natural communities located in the Project area, but these areas are outside of existing agricultural lands. This section also acknowledges that there is potential for special status species occurrence including Tipton kangaroo rat and blunt-nosed leopard lizard. The Project would require tilling and discing several times per year as a method of not allowing new plant or wildlife species to reside within fallowed areas. The ND concludes there a would be little to no opportunity for adverse effects to listed species as a result of Project implementation, and impacts would be less than significant.

A review of aerial imagery and the CNDDB show at least two large parcels composed of Valley saltbush scrub habitat occurring along the southern Project boundary. These parcels contain documented occurrence of San Joaquin kit fox, blunt-nosed leopard lizard, Tipton kangaroo rat, Crotch bumble bee, Hoover's eriastrum, and Kern mallow. Other parcels composed of non-native grassland or ruderal habitat also occur with the Project area. In addition, CDFW Buttonwillow Ecological Reserve is located within a mile of the Project (CDFW 2020).

Specific Impacts: Fossorial (ground dwelling) wildlife may be attracted to Project areas that will be fallowed due to the loose, friable soils resulting from intensive vegetation removal, tilling, and discing. This may include those special status species listed above, especially if fallowed lands are in close proximity to native lands or lands that are already occupied.
Without appropriate impact analysis and avoidance and minimization measures, potential significant impacts associated with fallowing agricultural land occupied by these and other special status wildlife species include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

General Recommendation:

- CDFW recommends that the ND acknowledge in Section 3.5.2 that Buttonwillow Ecological Reserve is located in close proximity to the Project boundary, and disclose that the Project may have significant impacts to other sensitive native habitats located within the Project boundary, including Valley sink scrub.

Recommended Mitigation Measure 1 – Biological Evaluation and Habitat Mitigation Plan

- CDFW recommends that the ND include a biological evaluation of all parcels that are eligible to participate in the Project, and develop a plan to avoid, minimize, and mitigate for any losses to sensitive natural communities and impacts to sensitive species. CDFW recommends that the plan address mitigation for impacted habitat value and function, to achieve a minimum no net loss of these habitats.

II. Mitigation Measure or Alternative and Related Impact Shortcoming

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the USFWS?

COMMENT 2: San Joaquin Kit Fox (SJKF)

Issues: SJKF occurrences have been documented within the Project boundary (CDFW 2020). The CEQA document does not include an analysis of Project impacts to SJKF.

Rotational fallowing of agricultural lands, and subsequent conversion of these properties back into agricultural production, has the potential to temporarily disturb and permanently alter suitable habitat for SJKF and directly impact individuals if present during discing and other land management activities.

SJKF den in a variety of areas such as rights-of-way, agricultural and fallow or ruderal habitat, dry stream channels, and canal levees, and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). SJKF may be attracted to Project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in fallow and agricultural fields and utilize streams, canals, and other linear right-of-ways as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the Project boundary and surrounding area.

Specific impacts: Without appropriate impact analysis, and avoidance and minimization measures for SJKF, potential significant impacts associated with fallowing agricultural land occupied by SJKF include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). Western Kern County supports relatively large areas of high suitability habitat and one of the largest remaining populations of SJKF (Cypher et al.

2013). The Project is within this remaining highly suitable habitat, which is otherwise intensively managed for agriculture. Therefore, ground-disturbing activities have the potential to significantly impact local SJKF populations.

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to SJKF associated with land conversion and subsequent ground disturbance, CDFW recommends conducting the following evaluation of project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 2: SJKF Habitat Assessment

For all Project-specific components, including Lead Agency authorizations for land conversion, CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project ground-disturbing activities, to determine if the Project area or its immediate vicinity contains suitable habitat for SJKF.

Recommended Mitigation Measure 3: SJKF Surveys and Minimization

CDFW recommends assessing presence/absence of SJKF by having qualified biologists conducting surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the USFWS (2011) "Standardized recommendations for protection of the San Joaquin kit fox prior to and during ground disturbance".

Recommended Mitigation Measure 4: SJKF Take Authorization

SJKF detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 3: Blunt-nosed Leopard Lizard (BNLL)

Issue: BNLL have been documented in suitable habitat within and adjacent to the Project boundary (CDFW 2020). Suitable BNLL habitat includes areas of grassland and upland scrub that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites, unpaved access roadways, and canals.

Specific impact: Without appropriate avoidance and minimization measures for BNLL, potentially significant impacts associated with ground-disturbing activities include habitat loss, burrow collapse, reduced reproductive success, reduced health and vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: Habitat loss resulting from cultivation, agricultural, urban, industrial development, petroleum and mineral extraction, and construction of communication and irrigation infrastructure is the primary threat to BNLL (ESRP 2020a). The range for BNLL now consists of scattered parcels of undeveloped land within the valley floor and foothills of the Coast Range (USFWS 1998). Some undeveloped areas with suitable BNLL habitat occur within the Project and surrounding area; therefore, ground disturbance and conversion of suitable habitat has the potential to significantly impact local BNLL populations. BNLL may utilize small mammal burrows for refugia in areas adjacent to suitable habitat.

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to BNLL associated with subsequent development, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 5: BNLL Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project ground-disturbing activities, to determine if the Project area or its immediate vicinity contains suitable habitat for BNLL.

Recommended Mitigation Measure 6: BNLL Surveys

If suitable habitat is present, then prior to initiating any vegetation- or ground-disturbance activities, CDFW recommends conducting surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019). 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 advises that BNLL surveys be completed no more than one year prior to initiation of ground disturbance. Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall of the same calendar year, and that within these time periods, there are specific protocol-level date, temperature, and time parameters that must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day "preconstruction surveys" often recommended for other wildlife species. In addition, the BNLL protocol specifies different survey effort requirements based on whether the disturbance results from maintenance activities or if the disturbance results in habitat removal (CDFW 2019).

Recommended Mitigation Measure 7: BNLL Take Avoidance

BNLL detection warrants consultation with CDFW to discuss whether take of BNLL can be avoided during ground-disturbing Project activities.

COMMENT 4: Tipton Kangaroo Rat (TKR)

Issue: TKR have been documented to occur within areas of suitable habitat within and adjacent to the Project (CDFW 2020). Suitable TKR habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows.

Specific impact: Without appropriate avoidance and minimization measures for TKR, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to TKR. Very little suitable habitat for this species remains along the western floor of the San Joaquin Valley (ESRP 2020b). Areas of suitable habitat within the Project represent some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. As a result, discing and ground-disturbing activities within the Project may have the potential to significantly impact local populations of TKR.

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to TKR, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 8: TKR Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project ground disturbing activities, to determine if the Project area or its immediate vicinity contains suitable habitat for TKR.

Recommended Mitigation Measure 9: TKR Avoidance

If suitable habitat is present, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances of suitable size for TKR use. Alternatively, the applicant can assume presence of TKR within the Project site and obtain from CDFW an ITP in accordance with Fish and Game Code section 2081 subdivision (b).

Recommended Mitigation Measure 10: TKR Take Authorization

TKR detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 5: Tricolored Blackbird (TRBL)

Issue: TRBL are known to occur in the Project vicinity (CDFW 2020, UC Davis 2020). Review of aerial imagery indicates that the Project boundary includes flood-irrigated agricultural land, which is an increasingly important nesting habitat type for TRBL, particularly in the San Joaquin Valley (Meese et al. 2017).

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated subsequent development include nesting habitat loss, nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: As mentioned above, flood-irrigated agricultural land is an increasingly important nesting habitat type for TRBL, particularly in the San Joaquin Valley (Meese et al. 2014). This nesting substrate is present within the Project vicinity. TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014). Approximately 86% of the global population is found in the San Joaquin Valley (Kelsey 2008, Weintraub et al. 2016). In addition, TRBL have been forming larger colonies that contain progressively larger proportions of the species' total population (Kelsey 2008). In 2008, for example, 55% of the species' global population nested in only two colonies, which were located in silage fields (Kelsey 2008). Nesting can occur synchronously, with all eggs laid within one week (Orians 1961). For these reasons, depending on timing, disturbance to nesting colonies can cause nest entire colony site abandonment and loss of all unfledged nests, significantly impacting TRBL populations (Meese et al. 2014).

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to TRBL associated with subsequent development, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 11: TRBL Surveys

CDFW recommends that vegetation removal be timed to avoid the typical bird-breeding season of February 1 through September 15. If Project activity that could disrupt nesting must take place during that time, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 12: TRBL Colony Avoidance

If an active TRBL nesting colony is found during preconstruction (preactivity) surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer, in accordance with CDFW's "Staff Guidance Regarding Avoidance of Impacts to Tricolored

Blackbird Breeding Colonies on Agricultural Fields in 2015" (CDFW 2015), until the breeding season has ended or until a qualified biologist has determined that nesting has ceased and the young have fledged and are no longer reliant upon the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, CDFW recommends that an active colony be reassessed to determine its extent within 10 days prior to Project initiation.

Recommended Mitigation Measure 13: TRBL Take Authorization

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss whether the Project can avoid take; if take avoidance is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), prior to any Project activities.

COMMENT 6: Crotch's Bumble Bee (CBB)

Issue: On June 28, 2019, the Fish and Game Commission published findings of its decision to advance CBB to candidacy as endangered. Pursuant to Fish and Game Code Section 2074.6, CDFW has initiated a status review report to inform the Commission's decision on whether listing of CBB, pursuant to CESA, is warranted. During the candidacy period, consistent with CEQA Guidelines, Section 15380, the status of the CBB as an endangered candidate species under CESA (Fish and Game Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA.

CBB have been documented to occur within the vicinity of the Project area (CDFW 2020). Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows, but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014, Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.

Specific impact: The ND does not address CBB. Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality.

Evidence impact is potentially significant: CBB was once common throughout most of the central and southern California; however, it now appears to be absent from most

of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest that there have been sharp declines in relative abundance by 98% and persistence by 80% over the last 10 years.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CBB associated with the Project, CDFW recommends incorporating the following mitigation measures into the ND prepared for this Project and implementing the following mitigation measures as a condition of approval for the Project.

Recommended Mitigation Measure 14: CBB Surveys

CDFW recommends that a qualified biologist conduct focused surveys for CBB and their requisite habitat features to evaluate potential impacts resulting from ground- and vegetation-disturbance associated with the Project, and potential impacts resulting from vegetation removal and discing.

Recommended Mitigation Measure 15: CBB Take Avoidance

If surveys cannot be completed, 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.

COMMENT 7: Special-Status Plants

Issue: Special-status plant species meeting the definition of rare or endangered under CEQA section 15380 are known to occur within the Project and surrounding area. Kern mallow and Hoover's eriastrum have been documented within the Project area.

Specific impact: Without appropriate avoidance and minimization measures for special-status plants, potential significant impacts associated with subsequent construction include loss of habitat, loss or reduction of productivity, and direct mortality.

Evidence impact would be significant: Kern mallow, Hoover's eriastrum, and many other special-status plant species are threatened by grazing and agricultural, urban, and energy development. Many historical occurrences of these species are presumed extirpated (CNPS 2019). Though new populations have recently been discovered, impacts to existing populations have the potential to significantly impact populations of plant species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to special-status plants associated with subsequent development, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 16: Special-Status Plant Surveys

CDFW recommends that individual Project sites 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 Natural Communities" (CDFG 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

Recommended Mitigation Measure 17: Special-Status Plant Avoidance

CDFW recommends that special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW may be warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

Recommended Mitigation Measure 18: Listed Plant Species Take Authorization

If a State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization is warranted. Take authorization would occur through issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 8: Burrowing Owl (BUOW)

Issue: BUOW occur within and in the vicinity of the Project (CDFW 2020). BUOW inhabit open grassland containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Habitat both within and surrounding the Project supports grassland habitat. Therefore, there is potential for BUOW to occupy or colonize the Project.

Specific impact: Potentially significant direct impacts associated with subsequent activities and land conversion include habitat loss, burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project and surrounding area contain remnant undeveloped land but is otherwise intensively managed for agriculture; therefore, subsequent ground-disturbing activities associated with subsequent constructions have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on

Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to BUOW associated with subsequent development, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 19: BUOW Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat for BUOW.

Recommended Mitigation Measure 20: BUOW Surveys

If suitable habitat is present on or in the vicinity of the Project area, CDFW recommends assessing presence or absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), which suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (i.e., April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a minimum 500-foot buffer area around the Project area.

Recommended Mitigation Measure 21: BUOW Avoidance

CDFW recommends that no-disturbance buffers, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

Recommended Mitigation Measure 22: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA. If it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of one burrow collapsed to one artificial burrow constructed (1:1) to mitigate for evicting BUOW and the loss of burrows. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.

COMMENT 9: Other State Species of Special Concern

Issue: Tulare grasshopper mouse, San Joaquin pocket mouse, coast horned lizard, San Joaquin coachwhip, California glossy snake, and American badger can inhabit grassland and upland scrub habitats (Thomson et al. 2016). All the species mentioned above have been documented to occur in the vicinity of the Project, which supports requisite habitat elements for these species (CDFW 2020).

Specific impact: Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include habitat loss, nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: Habitat loss threatens all of the species mentioned above (Thomson et al. 2016). Habitat within and adjacent to the Project represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. As a result, ground-and vegetation-disturbing activities associated with development of the Project have the potential to significantly impact local populations of these species.

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to special-status species associated with subsequent development, CDFW recommends conducting the following evaluation of project areas and implementing the following mitigation measures.

Recommended Mitigation Measure 23: Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if project areas or their immediate vicinity contain suitable habitat for the species mentioned above.

Recommended Mitigation Measure 24: Surveys

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for applicable species and their requisite habitat features to evaluate potential impacts resulting from ground and vegetation disturbance.

Recommended Mitigation Measure 25: Avoidance

Avoidance whenever possible is encouraged via delineation and observance a 50-foot no-disturbance buffer around dens of mammals like the American badger as well as the entrances of burrows that can provide refuge for small mammals, reptiles, and amphibians.

Editorial Comments and/or Suggestions

Federally Listed Species: CDFW recommends consulting with USFWS regarding potential impacts to federally listed species. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA 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 FESA is advised well in advance of any Project activities.

Lake and Streambed Alteration: Project activities have the potential to substantially change the bed, bank, and channel of lakes, streams, and associated wetlands onsite and/or substantially extract or divert the flow of any such feature that is 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.

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 Project and its impacts to 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 R4LSA@wildlife.ca.gov or (559) 243-4593.

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).

CDFW encourages Project implementation to occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), 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 Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, CDFW recommends that the work causing that change cease and CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife 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 that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required 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 BVWSD in identifying and mitigating Project impacts on biological resources.
If you have questions regarding these comments, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at the address on this letterhead, by phone at (559) 243-4014 extension 231, or by email at Annette.Tenneboe@wildlife.ca.gov.

Sincerely,

Julie A. Vance
Regional Manager

Attachment 1

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

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Attachment 1

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

PROJECT: Shafter Wasco Irrigation District Voluntary Rotational Land Fallowing Program

RECOMMENDED MITIGATION MEASURES	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Recommended Mitigation Measure 1: Biological Evaluation and Habitat Monitoring Plan	
Recommended Mitigation Measure 2: SJKF Habitat Assessment	
Recommended Mitigation Measure 3: SJKF Surveys and Minimization	
Recommended Mitigation Measure 4: SJKF Take Authorization	
Recommended Mitigation Measure 5: BNLL Habitat Assessment	
Recommended Mitigation Measure 6: BNLL Surveys	
Recommended Mitigation Measure 8: TKR Habitat Assessment	
Recommended Mitigation Measure 10: TKR Take Authorization	
Recommended Mitigation Measure 11: TRBL Surveys	
Recommended Mitigation Measure 13: TRBL Take Authorization	
Recommended Mitigation Measure 14: CBB Surveys	
Recommended Mitigation Measure 16: Special-Status Plant Surveys	
Recommended Mitigation Measure 18: Listed Plant Species Take Authorization	
Recommended Mitigation Measure 19: BUOW Habitat Assessment	
Recommended Mitigation Measure 20: BUOW Surveys	
Recommended Mitigation Measure 22: BUOW Passive Relocation and Mitigation	

RECOMMENDED MITIGATION MEASURES	STATUS/DATE/INITIALS
Recommended Mitigation Measure 23: Habitat Assessment (Other Species of Special Concern)	
Recommended Mitigation Measure 24: Surveys (Other Species of Special Concern)	
During Project Implementation	
Recommended Mitigation Measure 7: BNLL Take Avoidance	
Recommended Mitigation Measure 9: TKR Avoidance	
Recommended Mitigation Measure 12: TRBL Colony Avoidance	
Recommended Mitigation Measure 15: CBB Take Avoidance	
Recommended Mitigation Measure 17: Special-Status Plant Avoidance	
Recommended Mitigation Measure 21: BUOW Avoidance	
Recommended Mitigation Measure 25: Avoidance (Other Species of Special Concern)	