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September 13, 2023

Governor's Office of Planning & Research

Sep 13 2023

STATE CLEARINGHOUSE

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**Subject: Groundwater Banking Partnership Project (Project)
MITIGATED NEGATIVE DECLARATION (MND)
State Clearinghouse No. 2023080315**

Dear David Hampton:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from North Kern Water Storage District for the above-referenced Project pursuant 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.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may

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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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.

Bird Protection: CDFW has jurisdiction over actions that may 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 section 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird).

PROJECT DESCRIPTION SUMMARY

The Project would include agreements made between the North Kern Water Storage District and its groundwater banking partners to recharge the partners' water within existing spreading grounds/recharge basins during wet- and moderately-wet years. These additional recharge volumes would increase the importation of water supplies for groundwater banking ("banked water"), of which some portion would be returned to groundwater banking partners at a later time by Project facilities. New project facilities would include nine high-quality wells with an average pumping capacity of 5.5 cubic feet per second, a total of 8.92 miles of pipeline, one existing well tie-in, and two discharge points to the Friant-Kern Canal. Implementation of the Project would improve infrastructure and flexibility to allow for the return of previously banked water to North Kern Water Storage District banking partners via the Friant-Kern Canal.

Proponent: North Kern Water Storage District

Objectives: The objective of the Project is to improve return capacity to provide banking partners with additional water resources for agricultural uses or other purposes as determined by the North Kern Water Storage District. The wells and associated infrastructure are intended to improve infrastructure to allow for the return of previously banked water to banking partners and increase the North Kern Water Storage District's flexibility to recover previously banked groundwater to minimize potential water quality and subsidence impacts.

Location: The Project facilities would be constructed and operated in two areas of the North Kern Water Storage District service area, referred to as Project Area 1 and Project Area 2, located in Kern County near the cities of Shafter and Wasco.

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Timeframe: 2023.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the North Kern Water Storage District in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife, i.e., (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDDB) records, a review of aerial photographs of the Project and surrounding habitat, several special status species could potentially be impacted by Project activities.

Please note that the CNDDDB is populated by 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 and features capable of supporting species. A lack of an occurrence record, or lack of recent occurrence records, in the CNDDDB does not mean that 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) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present.

CDFW is concerned regarding potential impacts for the following special status wildlife species and habitats known to occupy the Project 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 threatened Swainson's hawk (*Buteo swainsoni*) and tricolored blackbird (*Agelaius tricolor*); the State candidate endangered Crotch's bumble bee (*Bombus crotchii*); and the State species of special concern burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), and California glossy snake (*Arizona elegans occidentalis*). Other species of birds, amphibians, reptiles, mammals, fish, and plants also compose the local ecosystem. Poso Creek and associated riparian habitats are located adjacent to Project Area 2.

COMMENT 1: San Joaquin kit fox (SJKF)

SJKF occurrences have been documented within the Project vicinity (CDFW 2023a). Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF and Kern County supports relatively large areas of high and medium suitability SJKF habitat (Cypher et al. 2013). The Project area is bordered by highly suitable habitat in an area that is otherwise under

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intensive agriculture. SJKF den in rights-of-way, agricultural and fallow/ruderal habitat, dry stream channels, and canal levees, etc., 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 and canals as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the Project boundary and surrounding area. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with construction include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Mitigation Measure BIO-3 on page 3-26 of the MND states that a pre-construction clearance survey for SJKF will be conducted not more than 30 days prior to the initiation of ground-disturbing activities. If potential dens for SJKF are found, exclusion zones will be established and maintained, in accordance with the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011). If wildlife is observed inside a pipe, the pipe will not be moved and the animal will be allowed to leave on its own. Also, if trapped or injured animals are observed in a trench, Project activities will stop and escape ramps or structures will be installed to allow the animal to escape. The MND does not include avoidance or minimization measures prior to potential capture of individuals or consultation with CDFW regarding activities that could result in take of SJKF, pursuant to Fish and Game Code section 86.

Recommended Mitigation Measure 1: SJKF Habitat Assessment

For Project activities including construction, staging, and land conversion in areas where SJKF are not already known to occur, CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for SJKF.

Recommended Mitigation Measure 2: SJKF Surveys and Minimization

CDFW recommends assessing presence/absence of SJKF in areas where SJKF are not already known to occur 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 *Standardized Recommendations for Protection of the San Joaquin kit fox Prior to or During Ground Disturbance* (USFWS 2011) during Project implementation.

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Recommended Mitigation Measure 3: SJKF Take Authorization

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

COMMENT 2: Tipton Kangaroo Rat (TKR)

Issues and Impacts: TKR have been documented along areas of suitable habitat within the Friant-Kern Canal right-of-way located within the Project Area 2 alignment (CDFW 2023a). The MND states (Page 3-22) that CNDDDB occurrences of SJKF in and near Project Area 2 are from 30 years ago and the most recent United States Fish and Wildlife Service (USFWS) 5-year Review documents the apparent extirpation of the species from this region; however, the 2020 USFWS 5-year Review document does not provide a determination that species occurrences along the Friant-Kern Canal are considered extirpated. A review of aerial photography has indicated that habitat conditions within and adjacent to documented occurrences have remained relatively stable since 1994. The CNDDDB considers these TKR occurrences as presumed extant (CDFW 2023a).

Suitable TKR habitat includes areas of grassland, upland scrub, and alkali sink habitats with requisite habitat elements such as small mammal burrows. Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to TKR and very little suitable habitat for the species remains along the edges of the southern San Joaquin Valley floor (ESRP 2023). Areas of suitable habitat within Project area represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. 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.

The MND concludes that TKR are not present within the Project alignment and does not propose avoidance, minimization, or mitigation measures. The MND also does not specify a biological basis for determining TKR extirpation in areas of documented occurrences.

Recommended Mitigation Measure 4: TKR 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 immediate vicinity contains suitable habitat for TKR.

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Recommended Mitigation Measure 5: TKR Avoidance

If suitable habitat is detected in a habitat assessment, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances of suitable size for TKR use.

Recommended Mitigation Measure 6: TKR Surveys

If burrow avoidance is not feasible in areas where TKR have not already been documented, CDFW recommends that focused protocol-level trapping surveys be conducted by a qualified biologist holding permits to do so by both CDFW and USFWS, to determine if TKR occurs in the Project area. CDFW recommends that these surveys be conducted in accordance with the USFWS (2013) *Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats*, well in advance of ground-disturbing activities.

Recommended Mitigation Measure 7: TKR Take Authorization

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

COMMENT 3: Swainson's Hawk (SWHA) and White-Tailed Kite (WTKI)

Issues and Impacts: The MND acknowledges that SWHA and WTKI are known to the Project area and have the potential to nest in riparian habitat and other mature trees located within the Project site and ½ mile of the Project. Suitable foraging habitat within the vicinity of the Project site includes annual grassland, alfalfa or grain fields, and livestock pasture. Conversion of undeveloped and agricultural land can directly influence distribution and abundance of SWHA, due to the reduction in foraging habitat. Groundwater pumping, surface water diversion, and habitat conversion may result in loss of riparian habitat and subsequent loss of nesting habitat. Without appropriate avoidance and minimization measures for SWHA and WTKI, potential significant impacts include nest abandonment and reduced reproductive success that includes mortality of young and reduced health and vigor of eggs and/or young.

The trees and riparian habitat within the Project area represent some of the only remaining suitable nesting habitat in the local vicinity. Depending on the timing of construction, activities including noise, vibration, and movement of workers or equipment could affect nests and have the potential to result in nest abandonment. In the San Joaquin Valley, suitable nest trees may be a limiting factor for SWHA productivity. The loss of suitable nest trees, particularly in proximity to foraging habitat, has the potential to significantly impact local SWHA (CDFW 2016). CDFW considers removal of known bird-of-prey nest trees, even outside of the nesting

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season, a potentially significant impact under CEQA, and, in the case of SWHA, it could also result in take under CESA. Project activities near the nest that differ from baseline disturbance regimes in type, timing, and/or magnitude can affect adults caring for eggs and young in the nest, and can affect nestling behavior. Project activities including noise, vibration, odors, visual disturbance, and movement of workers or equipment could affect nesting individuals and have the potential to result in nest abandonment or reduced nesting success, significantly impacting local nesting SWHA and WTKI.

Mitigation Measure BIO-2b on page 3-25 of the MND states that a qualified biologist will conduct surveys of potential SWHA trees within $\frac{1}{2}$ mile using the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SWHA TAC 2000). At a minimum, a survey will be conducted within 10 days before Project activities begin near suitable nest trees, from April through August. A qualified biologist will conduct surveys of potential WTKI nesting trees within $\frac{1}{4}$ mile of a recharge site. BIO-4 states that if an active SWHA or WTKI nest is observed, a protective buffer will be established and implemented until the nest is no longer active. If active SWHA or WTKI nests are observed, a qualified biologist will prepare site specific take avoidance plan to comply with CESA and the California Fish and Game Code. The MND analysis does not provide a biological basis of a $\frac{1}{4}$ -mile survey radius for WTKI nests or how a no-disturbance buffer will be determined as adequate to avoid significant impacts, including but not limited to take of individuals through nest failure or other means, as a result of Project implementation.

Recommended Mitigation Measure 8: SWHA and WTKI Nest Tree Avoidance and Mitigation

In addition to avoiding occupied nest trees, CDFW recommends that impacts to known nest trees be avoided at all times of year, or that mitigation occurs for these impacts. Regardless of nesting status, if potential or known SWHA and WTKI nesting trees are removed, CDFW recommends they be replaced with an appropriate native tree species, planted at a ratio of 3:1 (replaced to removed), in an area that will be protected in perpetuity. This mitigation will offset potential impacts of the loss of nesting habitat.

Recommended Mitigation Measure 9: Focused SWHA and WTKI Surveys

To reduce potential Project-related impacts to SWHA and WTKI, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting birds of prey, including SWHA and WTKI, following the survey methodology developed by the SWHA Technical Advisory Committee (2000) during the nesting season or prior to Project initiation, within the Project area and a $\frac{1}{2}$ -mile buffer around the Project area. In addition, if Project activities will take place during the typical breeding season (February 1 through September 15), CDFW recommends that

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additional preconstruction surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of construction.

Recommended Mitigation Measure 10: SWHA and WTKI Buffers

If an active SWHA nest is found during preconstruction surveys, CDFW recommends implementing a minimum ½-mile no-disturbance buffer 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 site care for survival.

Pursuant to Fish and Game Code section 3511, CDFW cannot authorize incidental take of WTKI. Therefore, CDFW recommends implementation of a minimum ¼-mile no-disturbance buffer around identified WTKI nest(s) 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 site for survival.

Recommended Mitigation Measure 11: SWHA Take Authorization

If a ½-mile no-disturbance nest buffer is not feasible, consultation with CDFW is warranted, and an Incidental Take Permit for SWHA may be necessary prior to project implementation to avoid unauthorized take, pursuant to Fish and Game Code section 2081, subdivision (b).

COMMENT 4: Tricolored Blackbird (TRBL)

Issues and Impacts: TRBL are known to occur in the Project area (CDFW 2023a). Review of aerial imagery indicates that the Project area includes suitable habitat types including wetlands, ponds, and flood-irrigated agricultural land, which is an increasingly important nesting habitat type for TRBL (Meese et al. 2017). TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014), and 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, 55% of the species' global population nested in only two colonies in silage fields (Kelsey 2008). Nesting can occur synchronously, with all eggs laid within one week (Orians 1961). For these reasons, disturbance to nesting colonies can cause entire nest colony site abandonment and loss of all unfledged nests, significantly impacting TRBL populations (Meese et al. 2014). Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with subsequent development include nesting habitat loss, nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

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Recommended Mitigation Measure 12: TRBL Surveys

CDFW recommends that Project activities be timed to avoid the avian nesting 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 biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence or absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 13: TRBL Colony Avoidance

If an active TRBL nesting colony is found during surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer, in accordance with CDFW's (2015) *Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 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 for survival.

Recommended Mitigation Measure 14: 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 and, if take avoidance is not feasible, to acquire an Incidental Take Permit pursuant to Fish and Game Code section 2081, subdivision (b), prior to any Project activities.

COMMENT 5: Crotch's Bumble Bee (CBB)

Issues and Impacts: CBB have been documented to occur within the vicinity of the Project area (CDFW 2023a). 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, underneath 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 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.

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 of CBB by 98% and persistence by 80% over the last 10 years. Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing

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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.

Recommended Mitigation Measure 15: CBB Surveys and Avoidance

CDFW recommends that a qualified biologist conduct a habitat assessment for CBB. Foraging resources and potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs, are advised to be documented as part of the assessment. In areas of suitable habitat, CDFW recommends a qualified biologist conduct a bumble bee survey using a protocol developed according to the CDFW (2023b) *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* to identify bumble bees and potential nesting sites during the vegetation blooming period prior to activities at Project sites. If any CBB or a nest are detected, CDFW advises consultation with CDFW to develop adequate take avoidance measures, and if a nest is observed at any time, avoidance would include protection for underground overwintering queens.

Recommended Mitigation Measure 16: CBB Take Authorization

If avoidance of take is not feasible, CDFW advises take authorization via an Incidental Take Permit for CBB, pursuant to Fish and Game Code section 2081, subdivision (b).

COMMENT 6: Burrowing Owl (BUOW)

Issues and Impacts: BUOW inhabit open grassland containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover 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 boundary contains remnant undeveloped land but is otherwise intensively managed for agriculture. Habitat both within and bordering the Project supports grassland habitat. 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.

Mitigation Measure MND BIO-2a states that a qualified biologist will assess BUOW habitat in a manner consistent with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). If any occupied burrows are observed, protective buffers will be established and implemented. The size of the buffer will depend on type and intensity of disturbance, presence of visual buffers, and other variables that could affect susceptibility of the owls to disturbance. The MND analysis does not provide a

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biological basis of how a no-disturbance buffer will be determined as adequate to avoid significant impacts, including but not limited to take of individuals.

Recommended Mitigation Measure 17: BUOW Habitat Assessment

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

Recommended Mitigation Measure 18: BUOW Surveys

If suitable habitat is present on or in the vicinity of the Project area, CDFW recommends assessing presence/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 CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Specifically, these reports 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 around the Project area.

Recommended Mitigation Measure 19: 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, and specifically 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 20: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA (CDFG 2012). If it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by

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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 then recommends mitigation in the form of replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 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 7: Other State Species of Special Concern

Issues and Impacts: American badger, California glossy snake, and Tulare grasshopper mouse may inhabit grassland and upland shrub areas with friable soils (Williams 1986, Thomson et al. 2016). These species have been documented to occur in the vicinity of the Project, which supports requisite habitat elements for these species (CDFW 2023a), and habitat loss threatens these species (Williams 1986, 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. Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include habitat loss and nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

Recommended Mitigation Measure 21: 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 22: Surveys

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

Recommended Mitigation Measure 23: Avoidance

Avoidance whenever possible is encouraged via delineation and observance of 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

Lake and Streambed Alteration: Project activities that have the potential to substantially change the bed, bank, and channel of streams and associated wetlands

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may be 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 (LSA) Agreement; therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for LSA Agreement issuance. Additional information on notification requirements is available through the Central Region LSA Program at (559) 243-4593 or R4LSA@wildlife.ca.gov, and the CDFW website: <https://wildlife.ca.gov/Conservation/LSA>.

Nesting birds: CDFW encourages that Project implementation 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 the 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 that 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 site for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological

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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.

Endangered Species Act Consultation: CDFW recommends consultation with the USFWS prior to Project activity, due to potential impacts to federally listed species. Take under the Federal Endangered Species Act (FESA) is more stringently defined than under CESA; take under FESA may also include 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 Project implementation.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database that may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be obtained at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at CNDDDB@wildlife.ca.gov. The types of information reported to 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).

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CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist the North Kern Water Storage District in identifying and mitigating Project impacts on biological resources. If you have questions regarding this letter, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 580-3202 or by email at Annette.Tenneboe@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Sarah Paulson

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Sarah Paulson for Julie A. Vance
Regional Manager

cc: Office of Planning and Research, State Clearinghouse, Sacramento

Patricia Cole
Division Chief, San Joaquin Valley Division
Sacramento Fish and Wildlife Office
United States Fish and Wildlife Service
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ec: Annette Tenneboe, California Department of Fish and Wildlife

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Attachment 1

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

**PROJECT: North Kern Water Storage District
Groundwater Banking Partnership Project**

STATE CLEARINGHOUSE No.: 2023080315

RECOMMENDED MITIGATION MEASURES	STATUS/DATE/INITIALS
<i>Before Project Activity</i>	
Recommended Mitigation Measure 1: SJKF Habitat Assessment	
Recommended Mitigation Measure 2: SJKF Surveys and Minimization	
Recommended Mitigation Measure 3: SJKF Take Authorization	
Recommended Mitigation Measure 4: TKR Habitat Assessment	
Recommended Mitigation Measure 5: TKR Avoidance	
Recommended Mitigation Measure 6: TKR Surveys	
Recommended Mitigation Measure 7: TKR Take Authorization	
Recommended Mitigation Measure 8: SWHA and WTKI Nest Tree Avoidance and Mitigation	
Recommended Mitigation Measure 9: Focused SWHA and WTKI Surveys	
Recommended Mitigation Measure 10: SWHA and WTKI Buffers	
Recommended Mitigation Measure 11: SWHA Take Authorization	
Recommended Mitigation Measure 12: TRBL Surveys	
Recommended Mitigation Measure 13: TRBL Colony Avoidance	
Recommended Mitigation Measure 14: TRBL Take Authorization	
Recommended Mitigation Measure 15: CBB Surveys and Avoidance	
Recommended Mitigation Measure 16: CBB Take Authorization	

RECOMMENDED MITIGATION MEASURES	STATUS/DATE/INITIALS
Recommended Mitigation Measure 17: BUOW Habitat Assessment	
Recommended Mitigation Measure 18: BUOW Surveys	
Recommended Mitigation Measure 19: BUOW Avoidance	
Recommended Mitigation Measure 20: BUOW Passive Relocation and Mitigation	
Recommended Mitigation Measure 21: Habitat Assessment - American Badger, California Glossy Snake, and Tulare Grasshopper Mouse	
Recommended Mitigation Measure 22: Surveys - American Badger, California Glossy Snake, and Tulare Grasshopper Mouse	
Recommended Mitigation Measure 23: Avoidance – American badger, California glossy snake, and Tulare Grasshopper Mouse.	
<i>During Project Activity</i>	
Recommended Mitigation Measure 2: SJKF Surveys and Minimization	
Recommended Mitigation Measure 5: TKR Avoidance	
Recommended Mitigation Measure 8: SWHA and WTKI Nest Tree Avoidance and Mitigation	
Recommended Mitigation Measure 10: SWHA and WTKI Buffers	
Recommended Mitigation Measure 13: TRBL Colony Avoidance	
Recommended Mitigation Measure 15: CBB Surveys and Avoidance	
Recommended Mitigation Measure 19: BUOW Avoidance	
Recommended Mitigation Measure 19: BUOW Avoidance	
Recommended Mitigation Measure 23: Avoidance – American badger, California glossy snake, and Tulare Grasshopper Mouse.	