

State of California – Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Inland Deserts Region 3602 Inland Empire Blvd, Suite C-220 Ontario, CA 91764 www.wildlife.ca.gov



Governor's Office of Planning & Research

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STATE CLEARINGHOUSE

Pietro Cambiaso Manager of Compliance & Sustainability Inland Empire Utilities Agency 6075 Kimball Avenue Chino, CA 91708

CHINO BASIN WATERMASTER OPTIMUM BASIN MANAGEMENT PROGRAM UPDATE (OBMPU) (PROJECT) RECIRCULATED DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (DSEIR) SCH#: 2020020183

Dear Pietro Cambiaso:

November 20, 2023 Sent via e-mail

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Recirculated DSEIR from the Inland Empire Utilities Agency (IEUA) for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW previously submitted comments in response to the DSEIR for the Project to the IEUA on May 8, 2020.

Thank you for the extension until November 20, 2023, to provide comments and recommendations on the recirculated DSEIR regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may 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 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.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Chino Basin Watermaster

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.

Project Objective: The Optimum Basin Management Program (OBMP) covers the Chino Basin, which includes approximately 235 square miles in the Upper Santa Ana River Watershed and lies within portions of San Bernardino, Riverside, and Los Angeles counties. The Chino Basin is mapped within the USGS–Corona North, Cucamonga Peak, Devore, Fontana, Guasti, Mount Baldy, Ontario, Prado Dam, Riverside West and San Dimas Quadrangles, 7.5 Minute Series topographic maps. The center of the Chino Basin is located near the intersection of Haven Avenue and Mission Boulevard (34.038040, -117.575954).

The Chino Basin Watermaster (Watermaster) developed a regional water resources and groundwater management program for the Chino Basin (OBMP). The update to the OBMP is intended to address possible program activities and projects at a programmatic level over the next 30 years. The recirculated DSEIR (herein referred to as 'DSEIR') addresses the current environmental setting, assesses the impacts related to the construction and operation of the regional program, and provides information to support required permitting process.

Project Background: The original OBMP and the accompanying Programmatic EIR (PEIR; July 2000) described the physical state of the groundwater basin and defined a set of management goals and actions. Agreements to implement the OBMP (termed 'Peace I Agreement' and 'Peace II Agreement'), and their associated CEQA analysis (Peace II SEIR, 2010; SEIR amendment, 2017) were also approved. The OBMP identified and described several management activities that, if implemented, could achieve the OBMP goals. These activities, and associated objectives and tasks defined in the 2000 OBMP, have been retained for the OBMPU. The 2020 OBMPU Implementation Plan Update is a revision of the implementation plans included in the Peace I and Peace II Agreements and incorporates the proposed activities and facilities identified in the 2020 OBMPU and ongoing activities from the 2000 OBMP. The 2023 OBMPU is a revision of the 2020 OBMPU which includes new projects and omitting any irrelevant or completed projects by Stakeholders of the Chino Basin. Below are the following changes that have been made:

- The Project Description has been modified to consider the addition of 28 new wells, for a total of 206 new wells of various types considered by the overall Program.
- The Project Description has been modified to consider the addition of 70,600 linear feet (LF) of pipeline, for a total of 620,600 LF of new pipeline of various types considered by the overall Program.
- The number of booster pump stations has been quantified at up to 18 booster pump stations with capacities of up to 10,000 gallons per minute (gpm) considered by the overall Program.
- The number of reservoirs has been quantified at 14 water storage reservoirs with an average storage capacity of 5 million gallons (MG) considered by the overall Program.
- The maximum storage space (safe storage capacity) of the Chino Basin has been modified from between 700,000-acre feet (af) and 1,000,000 af to between 700,000 af and 900,000 af going forward.
- The new advanced water treatment plant has been modified to a more specific 9,000-acre feet per year (afy) advanced water purification facility, inclusive of the anticipated appurtenances required to develop such a facility.
- The new groundwater treatment facilities at or near well sites and at regionally located sites has been quantified at 20 new groundwater treatment facilities at or near well sites, and 4 new groundwater treatment facilities at regionally located sites.

COMMENTS AND RECOMMENDATIONS

CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (i.e., biological resources). CDFW offers the comments and recommendations below to assist the IEUA in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The DSEIR has not adequately identified and disclosed the Project's impacts (i.e., direct, indirect, and cumulative) to biological resources and whether those impacts are reduced to less than significant.

CDFW's comments and recommendations on the DSEIR are explained in greater detail below and summarized here. CDFW is concerned that the DSEIR does not adequately identify or mitigate the Project's significant, or potentially significant impacts to biological resources. CDFW also concludes that the DSEIR lacks sufficient information to facilitate a meaningful review by CDFW, including an analysis of the current environmental setting and both a complete and accurate assessment of biological resources on the Project site. CDFW recommends that additional information and analyses be added to a revised DSEIR, along with avoidance, minimization, and mitigation measures that avoid or reduce impacts to less than significant.

CDFW Comments from 2020

CDFW understands that the IEUA will consider only new comments on the recirculated portions of the DSEIR. However, CDFW is still concerned about the adequacy of the OBMPU DSEIR in identifying potentially significant impacts and establishing adequate and enforceable mitigation measures. Specifically, CDFW would like to place emphasis on the comments and recommendations stated in the 2020 letter that mentions performing a complete and thorough impact analysis, an analysis of cumulative effects to biological resources, an analysis of cumulative effects to Prado Basin, and the problematic nature of deferring mitigation to other programs during acquisition of regulatory permits.

Existing Environmental Setting

Compliance with CEQA is predicated on a complete and accurate description of the environmental setting that may be affected by the proposed Project. CDFW is concerned that the assessment of the existing environmental setting has not been adequately analyzed in the DSEIR. CDFW is concerned that without a complete and accurate description of the existing environmental setting, the DSEIR may provide an incomplete analysis of Project-related environmental impacts.

While CDFW recognizes the programmatic nature of the DSEIR, some level of analysis could be completed at this time based on the data and information collected within the previous 20 years of OBMP implementation, information gathered in biological surveys for proposed Project areas, and the foreseeable impacts associated with future, contemplated projects. The current analysis of environmental conditions is based on the desktop review of the Project Area and "only cursory level surveys" (Appendix 3a, p. 9). Additionally, the IEUA states (Appendix 3a, p. 14) "focused field studies will be completed once specific project activities and a schedule for those activities are determined." CDFW is concerned that no current biological field assessments were conducted for the DSEIR (per Appendix 3a p. 15, the last reconnaissance-based field survey was conducted in 2013) and that deferring biological surveys could result in unforeseen impacts to fish and wildlife resources from Project activities, as well as delays to Project implementation. The Project area has the potential to support an abundance of wildlife, many of which are special-status species. A complete and accurate assessment of the environmental setting and Project-related impacts to biological resources is needed to both identify appropriate avoidance, minimization, and mitigation measures and demonstrate that these measures avoid or reduce Project impacts to less than significant. With the current information, CDFW is unable to provide

a meaningful review of Project impacts without an understanding of the baseline environmental conditions.

In addition, CDFW is concerned that the state conservation status of San Bernardino kangaroo rat on pages 4-54 and 4-70 of the DSEIR does not mention the pending listing as Endangered under the California Endangered Species Act (CESA). The conservation status of San Bernardino kangaroo rat is critical, and CDFW is concerned that the mechanism for take authorization for this species and other CESA-listed species has not been adequately addressed in the DSEIR, which could result in delays to Project implementation.

Mitigation Measures

CDFW is concerned that the mitigation measures proposed in the DSEIR are not adequate to avoid or reduce impacts to biological resources to less than significant. To support the IEUA in ensuring that Project impacts to biological resources are reduced to a level that is less than significant, CDFW recommends adding mitigation measures for assessment of biological resources, CESA compliance, artificial nighttime light, construction noise, CDFW's Lake and Streambed Alteration Program, as well as revising the mitigation measures for burrowing owl and nesting birds.

I. Environmental Setting and Related Impact Shortcoming

COMMENT #1: Assessment of Biological Resources

Draft Supplemental Environmental Impact Report (DSEIR) document, Appendix 3a Chapter 3

Issue: The DSEIR does not adequately identify the Project's significant, or potentially significant, impacts to biological resources.

Specific impact: The DSEIR bases its analysis of impacts to biological resources on the desktop review of the Project area. The DSEIR lacks any *recent* general field assessment of biological resources located within the Project footprint and surrounding areas, and no focused or protocol-level surveys were performed for the detection of special-status species. CDFW is concerned about the potential for special-status species to occur on or near the Project site. The Project area encompasses riparian habitat, uplands, freshwater marsh habitat, wildlife connectivity corridors, and shrub habitat, and there is high potential for specialstatus species to be impacted directly, indirectly, and cumulatively by Project activities. The California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS) indicate that occurrences of specialstatus species have been reported in the Project area, including, but not limited to:

Plants: Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), slender-horned spineflower (*Dodecahema leptoceras*), aparejo grass (*Muhlenbergia utilis*), Brand's star phacelia (*Phacelia stellaris*), Braunton's milkvetch (*Astragalus brauntonii*), California saw-grass (*Cladium californicum*), chapparal sand-verbena (*Abronia villosa* var. *aurita*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Coulter's saltbush (*Atriplex coulteri*), Greata's aster (*Symphyotrichum greatae*), grey-leaved violet (*Viola pinetorum* ssp. *grisea*), Hall's monardella (*Monardella macrantha* ssp. *hallii*), intermediate mariposa-lily (*Calochortus weedii* var. *intermedius*), Johnston's buckwheat (*Eriogonum microthecum* var. *johnstonii*), Jokerst's monardella (*Monardella australis* ssp. *jokerstii*), lemon lily (*Lilium parryi*), lucky morning-glory (*Calystegia felix*), manystemmed dudleya (*Dudleya multicaulis*), marsh sandwort (*Arenaria paludicola*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Nevin's barberry (*Berberis nevinii*), Parish's bush-mallow (*Malacothamnus parishii*), Parish's desert-thorn (*Lycium parishii*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), Peirson's spring beauty (*Claytonia peirsonii* ssp. *peirsonii*), prairie wedge grass (*Sphenopholis obtusata*), Pringle's monardella (*Monardella pringlei*), prostrate vernal pool navarretia (*Navarretia prostrata*), rigid fringepod (*Thysanocarpus rigidus*), Rock Creek broomrape (*Orobanche valida* ssp. *valida*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), salt spring checkerbloom (*Sidalcea neomexicana*), San Bernardino aster (*Symphyotrichum defoliatum*), San Diego ambrosia (*Ambrosia pumila*), San Gabriel linanthus (*Linanthus concinnus*), San Gabriel manzanita (*Arctostaphylos glandulosa* ssp. *gabrielensis*), Sanford's arrowhead (*Sagittaria sanfordii*), short-joint beavertail (*Opuntia basilaris* var. *brachyclada*), singlewhorl burrowbrush (*Ambrosia monogyra*), slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), white-rabbit tobacco (*Pseudognaphalium leucocephalum*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), woolly mountain-parsley (*Oreonana vestita*);

<u>Reptiles:</u> southwestern pond turtle (*Emys marmorata*), California glossy snake (*Arizona elegans occidentalis*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), red diamond rattlesnake (*Crotalus ruber*), San Diego banded gecko (*Coleonyx variegatus abbotti*), southern California legless lizard (*Anniella stebbinsi*), coast horned lizard (*Phrynosoma blainvillii*), two-striped gartersnake (*Thamnophis hammondii*);

<u>Amphibians:</u> arroyo toad (*Anaxyrus californicus*), Coast Range newt (*Taricha torosa*), foothill yellow-legged frog (*Rana boylii*), southern mountain yellow-legged frog (*Rana muscosa*), western spadefoot (*Spea hammondii*);

Birds: tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), coastal California gnatcatcher (*Polioptila californica*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), black swift (*Cypseloides niger*), California black rail (*Laterallus jamaicensis coturniculus*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), Swainson's hawk (*Buteo swainsoni*), yellow rail (*Coturnicops noveboracensis*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*);

<u>Fish:</u> Santa Ana sucker (*Catostomus santaanae*), arroyo chub (*Gila orcuttii*), Santa Ana speckled dace (*Rhinichthys osculus* ssp. 3), steelhead – southern California DPS (*Oncorhynchus mykiss irideus* pop. 10);

Mammals: San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*), American badger (*Taxidea taxus*), big free-tailed bat (*Nyctinomops macrotis*), hoary bat (*Lasiurus cinereus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), pallid bat (*Antrozous pallidus*), pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), western mastiff bat (*Eumops perotis californicus*), western yellow bat (*Lasiurus xanthinus*), desert bighorn sheep (*Ovis canadensis nelsoni*);

Insects: Crotch's bumble bee (*Bombus crotchii*), Delhi Sands flower-loving fly (*Rhaphiomidas terminates abdominalis*), and quino checkerspot butterfly (*Euphydryas editha quino*).

Recent surveys during the appropriate times of the year are needed to identify potential impacts to biological resources; inform appropriate avoidance,

minimization, and mitigation measures; and determine whether impacts to biological resources have been mitigated to a level that is less than significant. CDFW generally considers field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years.

Evidence impact would be significant: Compliance with CEQA is predicated on a complete and accurate description of the environmental setting that may be affected by the proposed Project. CDFW is concerned that the assessment of the existing environmental setting with respect to biological resources has not been adequately analyzed in the DSEIR. CDFW is concerned that without a complete and accurate description of the existing environmental setting, the DSEIR likely provides an incomplete or inaccurate analysis of Project-related environmental impacts and whether those impacts have been mitigated to a level that is less than significant. Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts, that special emphasis should be placed on environmental resources that are rare or unique to the region, and that significant environmental impacts of the proposed Project are adequately investigated and discussed.

Recommended Potentially Feasible Mitigation Measure:

To establish the existing environmental setting with respect to biological resources, CDFW recommends that a revised DSEIR include the results of recent biological surveys as described in the following mitigation measure, as well as any necessary mitigation measures:

MM BIO-[A]: Assessment of Biological Resources

Prior to Project construction activities, a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511), will be completed. Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

Pursuant to the CEQA Guidelines, section 15097(f), CDFW has prepared a draft mitigation monitoring and reporting program (MMRP) for revised MM BIO-3 and 20, and CDFW-recommended MM-BIO [A] through [D] (see Attachment 1).

II. Mitigation Measure or Alternative and Related Impact Shortcoming

COMMENT #2: California Endangered Species Act (CESA)

DSEIR document, Section 4.3.3.1, Pages #4-63 to 4-71, MM BIO-22

Issue: The DSEIR acknowledges that species listed under CESA have the potential to occur in or near the Project site. However, no recent field assessments were performed for the DSEIR, and the mitigation measures included in the DSEIR are inadequate to reduce potential impacts to listed species to less than significant or to address take authorization for CESA-listed species. In addition, CDFW is concerned that the state conservation status of San Bernardino kangaroo rat on p. 4-54 and 4-70 of the DSEIR does not mention the pending listing as Endangered under the California Endangered Species Act (CESA). CDFW is concerned that the mechanism for take authorization for this species and other CESA-listed species has not been adequately addressed in the DSEIR, which could result in significant Project delays.

Specific impact: CESA prohibits the take (under Fish & G. Code, § 86, "take" means to hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill) of any endangered, threatened, or candidate species that results from a proposed project, except as authorized by state law (Fish & G. Code, §§ 2080, 2085). The DSEIR acknowledges the potential for CESA-listed species to occur in the Project area but does not include adequate mitigation measures to reduce potential impacts to a level less than significant.

Although the IEUA is a participant to the proposed Upper Santa Ana River Habitat Conservation Plan (HCP), the plan is in the drafting stage and take of CESA-listed species has not been authorized for this Project through the HCP.

Additionally, portions of the Project occur within the boundary of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and the Project is subject to the provisions and policies of the MSHCP. To be considered a covered activity, Permittees need to demonstrate that proposed actions are consistent with the MSHCP, the Permits, and the Implementing Agreement. The IEUA is not a signatory to the Implementing Agreement of the MSHCP. If IEUA chooses to become a Participating Entity with the Plan, they must demonstrate consistency with the MSHCP, as part of the CEQA review, and the IEUA shall ensure the Project pays Local Development Mitigation Fees and other relevant fees as set forth in Section 8.5 of the MSHCP; and demonstrates compliance with: 1) the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2 of the MSHCP); 2) the Protection of Narrow Endemic Plant Species (Section 6.1.3 of the MSHCP); 3) the Urban/Wildlands Interface Guidelines (Section 6.1.4 of the MSHCP); 4) the policies set forth in Section 6.3.2; and 5) the Best Management Practices and the siting, construction, design, operation and maintenance guidelines as set forth in Section 7.0 and Appendix C of the MSHCP.

Alternatively, take authorization for CESA-listed species may be obtained through an Incidental Take Permit (ITP) or consistency determination.

Evidence impact would be significant: Take of any California Endangered Species Act (CESA) listed species is prohibited except as authorized by state law (Fish and G. Code, §§ 2080 & 2085). CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that the Project applicant seek appropriate take authorization which may include an ITP, a consistency determination, or other permitting options (Fish and G. Code, §§ 2080.1, 2081, subds. (b), (c)) if the Project has the potential to result in "take" (California Fish and Game Code section 86 defines "take" as hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill") of state-listed CESA species over the life of the Project. CESA ITPs are issued to conserve protect, enhance, and restore state-listed CESA species and their habitats. More information on ITPs can be found at: https://wildlife.ca.gov/Conservation/CESA/Permitting/Incidental-Take-Permitts.

Within the Inland Deserts Region, CDFW issued Natural Community Conservation Plan Approval and Take Authorization for the MSHCP per Section 2800 et seq. of the California Fish and Game Code on June 22, 2004. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit. Compliance with approved habitat plans, such as the MSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the MSHCP as a result of this Project is necessary to address CEQA requirements. To obtain additional information regarding the MSHCP please go to: <u>https://www.wrc-rca.org/</u>.

CDFW Recommendation: CDFW recommends that results of the biological surveys recommended in the "Assessment of Biological Resources" section be included in a revised DSEIR and that impacts to CESA-listed species be analyzed in the revised DSEIR. If Project construction or any Project-related activity during the life of the proposed Project may result in take of CESA-listed species, CDFW recommends that the Project proponent seek appropriate take authorization prior to project implementation. This may include an incidental take permit (ITP) or a Natural Community Conservation Plan (NCCP) (Fish & G. Code, §§ 2081 & 2800). CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. CDFW must comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DSEIR addresses all Project impacts to listed species and specify a mitigation monitoring and reporting program that will meet the requirements of CESA.

COMMENT #3: Burrowing Owl Surveys

DSEIR document, Section 4, MM BIO-3

Issue: CDFW is concerned that no surveys were conducted for burrowing owl (*Athene cunicularia*) and that Mitigation Measure BIO-3 is not sufficient to ensure that potential impacts to burrowing owls are mitigated to a level less than significant.

Specific impact: The DSEIR (Table 4.3-4) indicates that the "potential [for burrowing owl] to occur is high in all Chino Basin MZ's," and "cumulative impacts could occur resulting in a cumulative reduction in species occurrences across the existing habitat supporting the species"; however, no focused surveys were conducted for the DSEIR. Suitable habitat exists around the Chino Basin and burrowing owls have a high potential to move into disturbed sites prior to and during construction activities. Additionally, CNDDB and BIOS report occurrences of burrowing owl overlapping the Project and surrounding areas.

Burrowing owls frequently move into disturbed areas since they are adapted to highly modified habitats (Chipman et al. 2008; Coulombe 1971). Impacts to burrowing owl from the Project could include take of burrowing owls, their nests, or eggs or destroying nesting, foraging, or over-wintering habitat, thus impacting burrowing owl populations. Impacts can result from grading, earthmoving, burrow blockage, heavy equipment compaction and crushing of burrows, general Project disturbance that has the potential to harass owls at occupied burrows, and other activities.

Evidence impact would be significant: Burrowing owl is a California Species of Special Concern. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5, and 3513. Fish and Game Code section 3513 makes it unlawful to take or possess any

migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

Recommended Potentially Feasible Mitigation Measure:

Although the DSEIR includes MM BIO-3, CDFW considers the measure to be insufficient in scope and timing to reduce impacts to burrowing owls to a level less than significant. CDFW recommends that prior to commencing Project activities for all phases of construction over the lifetime of the Project, surveys for burrowing owl be conducted by a qualified biologist in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012 or most recent version), which includes focused and pre-construction surveys. Both surveys are effective in evaluating whether a project will result in impacts to burrowing owls. CDFW recommends the IEUA include a revised Mitigation Measure BIO-3 in a revised DSEIR as follows, with additions in **bold** and removals in strikethrough:

MM BIO-3: Focused and Pre-Construction Surveys for Burrowing Owl

All future OBMPU projects shall be required to consult with a qualified avian biologist to determine the need for site-specific protocol burrowing owl surveys. Prior to commencement of construction activity where a site has been determined to require a protocol burrowing owl survey by a qualified professional, or in locations that are not fully developed, a protocol burrowing owl survey will be conducted using the 2012 survey protocol methodology identified in the "Staff Report on Burrowing Owl Mitigation, State of California, Natural Resources Agency, Department of Fish and Game, March 7, 2012", or the most recent CDFW survey protocol available. Suitable burrowing owl habitat has been confirmed in the Project Area; therefore, focused burrowing owl surveys shall be conducted in accordance with the *Staff Report on Burrowing Owl Mitigation* (2012 or most recent version) prior to all phases of grounddisturbing and construction activities over the lifetime of the Project.. Protocol surveys shall be conducted by a biologist to determine if any burrowing owl burrows are located within the potential area of impact.

If occupied burrows may be impacted, an impact minimization plan shall be developed in coordination with CDFW If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. the Implementing Agency that will protect the burrow in place or provide for passive relocation to an alternate burrow within the vicinity but outside of the project footprint in accordance with current CDFW guidelines. Active nests must be avoided with a 250-foot buffer until all nestlings have fledged. The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Plan shall identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the 2012 Staff Report and shall implement CDFW-approved mitigation prior to initiation of

> Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. The Project proponent shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

> Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the *Staff Report on Burrowing Owl Mitigation* (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation*. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.

COMMENT #4: Nesting Birds

DSEIR document, Section 4, MM BIO-20

Issue: CDFW is concerned that no field assessments were conducted for nesting birds and that Mitigation Measure BIO-20 is not sufficient to ensure that potential impacts to nesting birds are mitigated to a level less than significant.

Specific impact: The DSEIR (Appendix 3a, section 3.1.6) indicates that the Project area "is noted for its very high bird species diversity and abundance." Further, "the extensive and continuous riparian woodland, unique for southern California, supports several rare and declining species, particularly birds. A robust raptor population occurs within the project area." A review of CNDDB and BIOS indicates occurrence of many special-status avian species within the Project area, such as tricolored blackbird, western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, California black rail, golden eagle, and white-tailed kite.

CDFW is concerned about the impacts to nesting birds including loss of nesting/foraging habitat and potential take from ground-disturbing activities and construction. Conducting work outside the peak breeding season is an important avoidance and minimization measure. CDFW also recommends the completion of nesting bird surveys regardless of the time of year to ensure that impacts to nesting birds are avoided. The timing of the nesting season varies greatly depending on several factors, such as bird species, weather conditions in any given year, and long-term climate changes (e.g., drought, warming, etc.). In response to warming, birds have been reported to breed earlier, thereby reducing temperatures that nests are exposed to during breeding and tracking shifts in availability of resources (Socolar et al., 2017). CDFW staff have observed that climate change conditions may result in nesting bird season occurring earlier and later in the year than historical nesting season dates. CDFW recommends that disturbance of occupied nests of migratory birds and raptors within the Project site and surrounding area be avoided any time birds are nesting on-site. CDFW therefore recommends the completion of nesting bird surveys regardless of the time of year to ensure compliance with all applicable laws pertaining to nesting and migratory birds.

Evidence impact would be significant: It is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows:

Fish and Game Code section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

Recommended Potentially Feasible Mitigation Measure:

CDFW appreciates the inclusion of MM BIO-20; however, the measure is insufficient in scope and timing to reduce impacts to a level less than significant. CDFW recommends a revised DSEIR include specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but are not limited to, Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. CDFW recommends that disturbance of occupied nests of migratory birds and raptors within the Project site be avoided **any time birds are nesting on-site.** Preconstruction nesting bird surveys shall be performed within 3 days prior to Project activities to determine the presence and location of nesting birds. Although the DSEIR includes Mitigation Measure BIO-20 for nesting birds, CDFW recommends the IEUA include a revised Mitigation Measure BIO-20 in a revised DSEIR as follows, with additions in **bold** and removals in strikethrough:

MM BIO-20: Avoidance of Nesting Birds

To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal will be conducted outside of the State identified nesting season for applicable bird species (nesting season is approximately from February 15 through September 1 of a given calendar year, depending on the species). Alternatively Additionally, regardless of the time of year, a nesting bird survey that demonstrates that no bird nests will be disturbed during project construction can shall be conducted by a qualified avian biologist no more than three (3)14 days prior to initiation of vegetation removal or ground disturbance for all phases of construction over the lifetime of the Project. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The gualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Construction activities may not occur inside the established buffers, which shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance. Construction may only commence once a biologist has demonstrated that no nesting birds are present at a given site. The Implementing Agency shall coordinate with the CDFW to develop nesting bird

survey protocol. The results of the nesting bird survey will be documented in a report submitted by the avian biologist to the Implementing Agency. The Implementing Agency, in coordination with CDFW and USFWS (as appropriate), may designate nest buffers outside of which construction activities may be allowed to proceed. There are no standard nest buffers specified in the Migratory Bird Treaty Act (MBTA) or within the California Fish and Game Code. Disturbance factors including nest location, human activity, activity duration, and noise level may influence nesting behavior and reproductive success, shall be considered by the project biologist in coordination with CDFW and USFWS (as appropriate) in establishing standard buffer distances for individual species on a project- and site-specific basis.

COMMENT #5: Artificial Nighttime Lighting

DSEIR Initial Study (IS) document, Section I, Page #28-30

Issue: The DSEIR lacks an analysis of impacts to biological resources from artificial nighttime light and includes no mitigation measures to avoid or reduce impacts to biological resources to a level less than significant.

Specific impact: The DSEIR IS document (p. 28) acknowledges that "the ancillary facilities may include nighttime security lighting mounted to the buildings and/or structures. These new sources of lighting could result in significant light intrusion impacts onto adjacent land uses." Additionally, (p. 29) water treatment facilities "could result in new exterior nighttime lighting for operational and security purposes within the existing treatment facilities. The increase in lighting within existing treatment facilities could result in spill over lighting." Although the DSEIR IS document (MM AES-7, p. 30) indicates that low-pressure sodium lights will be utilized to reduce impacts of glare, no mitigation measures are proposed to ensure that impacts to biological resources are reduced to a level less than significant. In addition, the DSEIR lacks a substantive analysis of the impacts of artificial lighting on biological resources including migratory birds that fly at night, bats, and other nocturnal and crepuscular wildlife should be analyzed, and appropriate avoidance and minimization measures should be included in a revised DSEIR.

Evidence impact would be significant: Light intensity, light color, and duration of 'light-on' periods have the potential to significantly and adversely affect fish and wildlife (Syposz et al. 2021). Artificial lighting alters ecological processes including, but not limited to, the temporal niches of species; the repair and recovery of physiological function; the measurement of time through interference with the detection of circadian and lunar and seasonal cycles; the detection of resources and natural enemies; and navigation (Gatson et al. 2013). Many species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). 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).

Recommended Potentially Feasible Mitigation Measure:

Because of the potential for artificial nighttime light to negatively impact wildlife, CDFW recommends a revised DSEIR include specific avoidance and minimization measures to ensure that impacts to wildlife are reduced to less than significant.

MM BIO-[B]: Artificial Nighttime Light

During Project construction and operation, the IEUA shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use

> of artificial light during the hours of dawn and dusk when many wildlife species are most active. The IEUA shall ensure that lighting for Project activities is shielded, cast downward, and does not spill over onto other properties or upward into the night sky (see the International Dark-Sky Association standards at <u>http://darksky.org/</u>). The IEUA shall ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.

COMMENT #6: Construction Noise

DSEIR IS document, Section XIII, Pages #146-163

Issue: The DSEIR does not include sufficient mitigation measures to avoid or reduce impacts to biological resources to a level less than significant.

Specific impact: The DSEIR IS document (p. 146) states the proposed program would result in a significant operational noise impact and levels are expected to exceed 78 dBA (Table XIII-2). These levels exceed exposure levels that may adversely affect wildlife species at 55 to 60 dBA. Impacts to wildlife from Project-related construction noise are not analyzed in the DSEIR. Furthermore, the mitigation measures NIO-1 through 6 in the DSEIR are not sufficient to reduce impacts to wildlife to a level less than significant.

Evidence impact would be significant: Construction may result in substantial noise through road use, equipment, and other Project-related activities. This may adversely affect wildlife species in several ways as wildlife responses to noise can occur at exposure levels of only 55 to 60 dB (Barber et al. 2009). Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cures (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011).

Recommended Potentially Feasible Mitigation Measure:

Because of the potential for construction noise to negatively impact wildlife, CDFW recommends a revised DSEIR include an analysis of impacts to biological resources and specific avoidance and minimization measures to ensure that impacts to wildlife are reduced to less than significant. Although the DSEIR includes MM NOI-1 through 6, CDFW considers the measures to be insufficient in scope and timing to reduce impacts to a level less than significant for biological resources. CDFW recommends adding the following mitigation measure to a revised DSEIR:

MM BIO-[C]: Construction Noise

During all Project construction, the IEUA shall restrict the use of equipment to hours least likely to disrupt wildlife (e.g., not at night or in early morning) and restrict use of generators except for temporary use in emergencies. Power to sites can be provided by solar PV (photovoltaic) systems, cogeneration systems (natural gas generator), small micro-hydroelectric systems, or small wind turbine systems. The IEUA shall ensure use of noise suppression devices such as mufflers or enclosures for generators.

Sounds generated from any means must be below the 55-60 dB range within 50-feet from the source.

COMMENT #7: CDFW Lake and Streambed Alteration (LSA) Program

DSEIR IS, Section 3, Page #3-4

Issue: The DSEIR IS document (p. 3) acknowledges that the Project includes the potential discharge of fill into or alterations of "waters of the United States," "waters of the State," and streambeds of the State of California, but does not include mitigation measures to avoid or reduce impacts to a level less than significant.

Specific impact: The objective of the OBMP is to develop a program that would manage water resources and groundwater management. To achieve this objective, impacts to resources subject to Fish and Game Code section 1602 are likely to occur. CDFW review of aerial imagery confirms the location of several aquatic features transversing the Project area. Depending on how the Project is designed and constructed, it is likely that potential direct and indirect impacts to streams and to associated fish and wildlife resources, such as burrowing owl and nesting birds, would result from Project construction.

Evidence impact would be significant: Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify the Project that would eliminate or reduce harmful impacts to fish and wildlife resources. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code § 21065). Early consultation with CDFW is recommended since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To submit a Lake or Streambed Alteration notification, visit:

https://wildlife.ca.gov/Conservation/Environmental-Review/LSA.

Recommended Potentially Feasible Mitigation Measure:

Because of the potential for impacts to resources subject to Fish and Game Code section 1602, CDFW recommends the IEUA include the following additional mitigation measure in a revised DSEIR:

MM BIO-[D]: CDFW's Lake and Stream Alteration (LSA) Program

Prior to Project activities and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsor shall obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

ENVIRONMENTAL DATA

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

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document 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 environmental document filing 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 recirculated DSEIR to assist the IEUA in identifying and mitigating Project impacts on biological resources. CDFW concludes that the DSEIR does not adequately identify or mitigate the Project's significant, or potentially significant impacts on biological resources. CDFW also concludes that the DSEIR lacks sufficient information for a meaningful review of impacts to biological resources, including a complete and accurate assessment of biological resources on the Project site. The CEQA Guidelines indicate that recirculation is required when insufficient information in the DSEIR precludes a meaningful review (§ 15088.5) or when a new significant effect is identified (§ 15088.5). CDFW recommends that a revised DSEIR with a recent and complete assessment of impacts to biological resources, as well as mitigation to avoid and reduce those impacts to less than significant, be recirculated for public comment.

CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts. Questions regarding this letter or further coordination should be directed to Alyssa Hockaday, Senior Environmental Scientist (Specialist) at (760) 920-8252 or <u>Alyssa.Hockaday@wildlife.ca.gov</u>.

Sincerely,

Lim Fruchum 84F92FFEEFD24C8... Kim Freeburn Environmental Program Manager

Attachment 1: MMRP for CDFW-Proposed Mitigation Measures

ec: Heather Brashear, Senior Environmental Scientist (Supervisor), CDFW <u>Heather.Brashear@wildlife.ca.gov</u>

Eric Kawamura-Chan, Senior Environmental Scientist (Supervisor), CDFW Eric.Chan@wildlife.ca.gov

Carly Beck, Senior Environmental Scientist (Supervisor), CDFW Carly.Beck@wildlife.ca.gov

Office of Planning and Research, State Clearinghouse, Sacramento <u>State.clearinghouse@opr.ca.gov</u>

REFERENCES

- Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180-189.
- Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. Ecology 58:98–108.
- Chipman, E. D., N. E. McIntyre, R. E. Strauss, M. C. Wallace, J. D. Ray, and C. W. Boal. 2008. Effects of human land use on western burrowing owl foraging and activity budgets. Journal of Raptor Research 42(2): 87-98.
- Coulombe, H. N. 1971. Behavior and population ecology of the Burrowing Owl, *Speotyto cunicularia*, in the Imperial Valley of California. Condor 73:162–176.
- Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415–1419.
- Gatson, K. J., Bennie, J., Davies, T., Hopkins, J. 2013. The ecological impacts of nighttime light pollution: a mechanistic appraisal. Biological Reviews.
- Gillam, E. H., and G. F. McCracken. 2007. Variability in the echolocation of Tadarida brasiliensis: effects of geography and local acoustic environment. Animal Behaviour 74:277–286.
- Kight, C. R., and J. P. Swaddle. 2011. How and why environmental noise impacts animals: An integrative, mechanistic review. Ecology Letters 14:1052–1061.
- Longcore, T., and C. Rich. 2004. Ecological light pollution Review. Frontiers in Ecology and the Environment 2:191–198.
- Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor 108:130–139.
- Patricelli, G., and J. J. L. Blickley. 2006. Avian communication in urban noise: causes and consequences of vocal adjustment. Auk 123:639–649.
- Quinn, J. L., M. J. Whittingham, S. J. Butler, W. Cresswell, J. L. Quinn, M. J. Whittingham, S. J. Butler, W. Cresswell, and W. Noise. 2017. Noise, predation risk compensation and vigilance in the chaffinch Fringilla coelebs. Journal of Avian Biology 37:601–608.
- Rabin, L. A., R. G. Coss, and D. H. Owings. 2006. The effects of wind turbines on antipredator behavior in California ground squirrels (Spermophilus beecheyi). Biological Conservation 131:410–420.
- Slabbekoorn, H., and E. A. P. Ripmeester. 2008. Birdsong and anthropogenic noise: Implications and applications for conservation. Molecular Ecology 17:72–83.
- Socolar JB, Epanchin PN, Beissinger SR and Tingley MW (2017). Phenological shifts conserve thermal niches. Proceedings of the National Academy of Sciences 114(49): 12976-12981.
- Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology 19:1123–1127. Elsevier Ltd.
- Sun, J. W. C., and P. M. Narins. 2005. Anthropogenic sounds differentially affect amphibian call rate. Biological Conservation 121:419–427.
- Syposz, M., O. Padget, J. Willis, B. M. Van Doren, N. Gillies, A. L. Fayet, M. J. Wood, A. Alejo, and T. Guilford. 2021. Avoidance of different durations, colours, and intensities of artificial light by adult seabirds. Scientific Reports 11:18941.

ATTACHMENT 1: MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Biological Resources (BIO)				
Mitigation Measure (MM) Description	Implementation Schedule	Responsible Parties		
MM BIO-[A]: Assessment of Biological Resources Prior to Project construction activities, a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511), will be completed. Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified	Prior to Project construction activities	IEUA		

biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable are required. Acceptable species- specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.		
MM BIO-3: Focused and Pre-Construction Surveys for Burrowing Owl Suitable burrowing owl habitat has been confirmed in the Project Area; therefore, focused burrowing owl surveys shall be conducted in accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (2012 or most recent version) prior to all phases of ground-disturbing and construction activities over the lifetime of the Project. If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing Owl Plan shall also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Plan shall identify compensatory mitigation Impacts" section of the 2012 Staff Report and shall implement CDFW-approved mitigation prior to initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. The Project proponent shall implement the Burrowing	Focused surveys: Prior to the start of Project-related activities for all phases of ground-disturbing and construction activities over the lifetime of the Project. Pre-construction surveys: No less than 14 days prior to start of Project- related activities and within 24 hours prior to ground disturbance.	IEUA

the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.		
MM BIO-20: Avoidance of Nesting Birds To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal will be conducted outside of the State identified nesting season for applicable bird species (nesting season is approximately from February 15 through September 1 of a given calendar year, depending on the species). Additionally, regardless of the time of year, a nesting bird survey shall be conducted by a qualified avian biologist no more than three (3) days prior to initiation of vegetation removal or ground disturbance for all phases of construction over the lifetime of the Project. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Construction activities may not occur inside the established buffers, which shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.	No more than three (3) days prior to vegetation clearing or ground-disturbing activities for all phases of ground-disturbing and construction activities over the lifetime of the Project.	IEUA
MM BIO-[B]: Artificial Nighttime Light During Project construction and operation, the IEUA shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light during the hours of dawn and dusk when many wildlife species are most active. The IEUA shall ensure that lighting for Project activities is shielded, cast downward, and does not spill over onto other properties or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). The IEUA shall ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.	During Project construction activities and operation.	IEUA
MM BIO-[C]: Construction Noise During all Project construction, the IEUA shall restrict the use of equipment to hours least likely to disrupt wildlife (e.g., not at night or in early morning) and restrict use of generators except for temporary use in emergencies. Power to sites can be provided by solar PV (photovoltaic) systems, cogeneration systems (natural gas generator),	During Project activities.	IEUA

small micro-hydroelectric systems, or small wind turbine systems. The IEUA shall ensure use of noise suppression devices such as mufflers or enclosures for generators. Sounds generated from any means must be below the 55- 60 dB range within 50-feet from the source.		
MM BIO-[D]: CDFW's Lake and Streambed Alteration (LSA) Program Prior to Project-activities and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, <i>or</i> the Project Sponsor shall obtain a CDFW- executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.	Prior to Project activities and issuance of any grading permit.	IEUA