March 18, 2024 Sent via e-mail

**Governor's Office of Planning & Research** 

March 18 2024

Daniel Casey Principal Planner City of Rialto 150 S. Palm Avenue Rialto, CA 92376

**STATE CLEARINGHOUSE** 

RIALTO HABITAT NATURE CENTER (PROJECT)
MITIGATED NEGATIVE DECLARATION (MND)
SCH#: 2024020570

Dear Daniel Casey:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from the City of Rialto (City), for the Rialto Habitat Nature Center (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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, 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:** City of Rialto

**Objective:** The Project proposes to construct the Rialto Habitat Nature Center (RHNC) located on the southern portion of the Rialto Wastewater Treatment Plant (WWTP) property. The Project would provide an approximately 13-acre outdoor public space including an approximately 10-acre non-contact/non-watercraft lake consisting of two connected lakes, one mile of pedestrian perimeter trails, passive recreation, environmental education programming, and public outreach. The lakes would have depths of approximately 13-feet and 48-feet and would be created by intercepting fully treated

<sup>1</sup> 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.

(primary, secondary, and tertiary) effluent from the WWTP that is currently discharged into the Rialto Channel. The routed effluent into the proposed lakes would constitute approximately 10 percent of the effluent flow that is currently discharged into the Rialto Channel. The treated water from the WWTP would be reclaimed and temporarily stored in the lakes prior to being discharged back into concrete-lined Rialto channel at the existing discharge outlet pipe. The City currently discharges treated effluent (average flow 7 mgd; minimum flow 6 mgd; maximum flow 8 mgd)<sup>2</sup> into the Rialto Channel that flows downstream and changes into an unlined portion of the channel south of Agua Mansa Road prior to flowing into the Santa Ana River. Agua Mansa Road is located approximately 0.25 miles and the Santa Ana River approximately 0.65 miles down channel from the discharge point. The site is currently an undeveloped dry pit that was formerly used as a receiving basin for partially treated discharge from the WWTP up to the early 1970s.

Drainage for the RHNC site would be accomplished by a network of v-ditches located on the outside of the perimeter trails that encircle the lakes and on the east side of the site approximately 15 to 20 feet above the perimeter trails. The v-ditches would convey off site stormwater flowing onto the site and on-site flow into the lake via down drains located around the lake. In addition, public parking for the proposed project would be constructed on an approximately 0.15-acre vacant site, identified as Accessor's Parcel Number (APN) 805-36-185A, located on the north side of Agua Mansa Road and directly west of the Agua Mansa Road crossing of the Rialto Channel. Development of the parking area would require site preparation, earthwork, and paving. Development of the pedestrian pathway between the parking area and the lake along the existing utility road would require brush clearing, signage, loose rock removal, and tread improvement for drainage.

**Location:** The proposed Project would be located on an approximately 13-acre site in the southern portion of the approximately 40-acre Rialto WWTP, located at 501 E. Santa Ana Avenue, City of Rialto, San Bernardino County (34.051637, -117.360138). Parking for the proposed RHNC would be located approximately 0.25 miles to the south on Agua Mansa Road, City of Colton, San Bernardino County right-of-way (34.048126, -117.357066). The Project encompasses APN 258-151-25. The RHNC site is bordered by the existing WWTP to the north, the Rialto Channel to the immediate east, and undeveloped/vacant land to the east, south, and west.

**Timeframe:** Construction is anticipated to take place over 18 months.

#### **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 City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The MND has not adequately identified and disclosed the Project's impacts (i.e., direct, indirect, and cumulative) to biological resources and whether those impacts are less than significant.

CDFW's comments and recommendations on the MND are explained in greater detail below and summarized here. CDFW recommends that additional information and analyses be added to a revised MND, along with avoidance, minimization, and mitigation measures that reduce impacts to less than significant.

#### **Project-Related Environmental Impacts**

An MND must analyze and disclose all direct and reasonably foreseeable indirect impacts on the environment caused by the proposed Project. An MND must also identify mitigation measures that would avoid or reduce the potentially significant adverse impacts.

Diversion and sale of water

<sup>&</sup>lt;sup>2</sup> Rialto Recycled Water Interconnection Preliminary Design Report, Draft Report, Inland Empire Utilities Agency, page 2-2, June 26, 2023.

The MND states (p. 2-1) "The proposed Project would not change the flow rate or discharge location of effluent into the Rialto Channel and Santa Ana River." However, the MND (p. 2-6) indicates that the RHNC "would be created by diverting approximately 10 percent of the treated water from the City's WWTP and temporarily storing the reclaimed water in the lakes to provide passive outdoor and educational experiences and wetland/terrestrial wildlife habitat. ... Once the lake has been created and becomes operational, the approximately 10 percent of water diverted and reclaimed from the WWTP into the lakes will be returned to the Rialto Channel and rejoin the majority of effluent flow into the channel." The MND does not appear to disclose the amount of time that the diverted water will be stored in the lakes. In addition, the MND does not address the impacts of temporal loss of flow to the Rialto Channel and Santa Ana River on biological resources. Further, the MND states (p. 2-5) "The City has recently agreed to sell Inland Empire Utilities Agency (IEUA) 7 mgd of effluent in the first phase and up to 10 mgd in the future. The recycled water interconnect project would include a pump station located north of the RHNC site and within the WWTP property and an interconnection pipeline from the pump station easterly along the northern perimeter of the RHNC site to Rialto Channel. From Rialto Channel, the pipeline would turn north towards Santa Ana Avenue and ultimately to IEUA's Regional Water Recycling Plant No. 4 located at 12811 6th Street in Rancho Cucamonga." It is unclear how the flow rate and amount of effluent into the Rialto Channel and Santa Ana River will remain unchanged if the City intends to maintain a 10 percent diversion of the effluent flow that is currently discharged into the Rialto Channel, while also selling 7 mgd and 10 mgd to the Inland Empire Utilities Agency. CDFW recommends a recirculated MND clarify the discrepancy regarding the amount and rate at which water will be diverted/sold for the Project. In addition, a revised MND should indicate the amount of time water will be diverted and stored in the lakes. A revised MND should also include an analysis of impacts to biological resources as a result of the temporal loss of flow into the Rialto Channel and Santa Ana River. Absent this information, the MND likely provides an incomplete assessment of Project-related impacts to biological resources.

The MND states (p. 2-1), "It should be noted that the City has the ability and capacity to choose not to divert any water into the lakes post construction, for the purposes of regulating flows into Rialto Channel or effectively concluding the existence of the lakes. Reasons for temporarily or permanently stopping the diverting and storage of the water could be for maintenance of the lined and unlined portions of Rialto Channel, the cost of maintenance and repairs to the lakes, or overall operations of the lakes. The Rialto Habitat Nature Center Project is fully autonomous to the overall system, and should budget decline in the City, the City reserves the right to stop diverting water into the lakes and return to pre-project conditions." CDFW is concerned that the lead agency has not considered the adverse environmental impacts that could result from temporary or permanent changes in water flow and frequency to the lakes once they are established. The MND indicates the Project would create 3-4 acres of wetland and terrestrial habitat and cites (p. 3-20) "creation of the lakes and adjacent habitats" as supporting evidence that the Project would have a less than significant impact on biological resources. However, if water is no longer supplied to the lakes, potential impacts to these habitats and the species that will utilize these habitats may occur. The MND does not analyze the potential impacts to biological resources if the newly created habitat is not maintained. In addition, the MND does not address how these areas will be designed, maintained, and managed over the life of the Project (i.e., species selection, vegetation management, erosion, invasives, movement of water). Many studies have shown that improper management of constructed wetlands can potentially result in poor-quality ecosystems if not adequately planned and under strict technical management and supervision (Wright et al. 2022, Liu et al. 2024). CEQA is predicated on a complete and accurate description of the proposed Project. Without a complete and accurate project description, the MND likely provides an incomplete assessment of Project-related impacts to biological resources. CDFW recommends a recirculated MND include an analysis of any cumulative impacts that could result from temporarily or permanently ceasing diversion and storage of water to the Project. These impacts should include any adverse effects to adjacent riparian habitat and any adverse effects to downstream water sources (i.e., Rialto Channel and Santa Ana River). The MND

should also address how the lead agency plans to create and maintain these habitats over the life of the Project.

#### Water Quality

The MND (p. 3-52) states the RHNC would provide the City with "water quality benefits"; however, no further information is provided regarding this statement. It is unclear how and the process by which the City intends to improve water quality. Many studies have linked effluent from wastewater plants to physiological and reproductive abnormalities in fish species (Jenkins et al. 2009, Fuzzen et al. 2015, McCallum et al. 2019, Hamdhani et al. 2020). Wastewater effluent often contains high levels of nutrients and reduced dissolved oxygen levels. Contaminants such as pharmaceuticals, personal care products, plastic byproducts, and pesticides may not be adequately removed by wastewater treatment processes (McCallum et al. 2019). Estrogenic and other contaminants that occur in wastewater are known to disrupt the hormone systems of fish (Johnson and Sumpter 2001, Jenkins et al. 2009, Fuzzen et al. 2015, Hicks et al. 2017, Marjan et al. 2018, McCallum et al. 2019, Hamdhani et al. 2020). One of the most widely reported consequences is "intersex," a condition in which both male and female characteristics exist in the same fish. This condition can result in lower reproductive success (Jenkins et al. 2009, Fuzzen et al. 2015, Hicks et al. 2017). Thus, CDFW recommends a recirculated MND provide information regarding the "water quality benefits" that are proposed for the Project. Information should include: (1) Data on the chemical characteristics of the water to be used for the Project, including contaminants likely to result in hormone disruption of fish species, as well as other contaminants; (2) Data on the physical characteristics of the water that are likely to impact fish species, such as water temperature, dissolved oxygen. and pH; (3) A comparison of the pre-Project water quality profile versus the estimated water quality profile following Project implementation; and (4) A provision for ongoing monitoring of water quality before it is discharged to the Rialto Channel. Absent this information, the MND likely provides an incomplete assessment of Project-related impacts to biological resources.

# Santa Ana Sucker (Catostomus santaanae) and Arroyo Chub (Gila orcutti)

Santa Ana sucker is a threatened species pursuant to the federal Endangered Species Act and is a California Species of Special Concern. Santa Ana sucker rely on flows with suitable water quality and substrate to support breeding, feeding, and sheltering<sup>3</sup>. Furthermore, the Rialto Channel is an important water source for the species as one of its remaining populations occupies the Santa Ana River. Ongoing threats to the species are caused by halting and altering water releases critical to maintaining surface flows of the Santa Ana River, and degradation associated with significant changes in the hydrology of the tributaries to the River. Arroyo chub is a California Species of Special Concern and its numbers have also declined drastically in the Santa Ana River due to water extraction/addition (O'Brien and Barabe 2022). Thus, it is vital to maintain the required discharge to the River as changes could result in significant impacts to fish downstream, including Santa Ana sucker and arroyo chub. CDFW is concerned about the inconsistencies in information regarding the amount and rate at which water will be diverted from the Rialto Channel, the amount time the water will be diverted and stored in the lakes, and the lack of analyses regarding subsequent impacts to sensitive fish species downstream. Absent this information, the MND likely provides an incomplete assessment of the potentially significant impacts to special-status fish that would be affected by this Project.

In addition, the MND (p. 5-1) states that with a no Project alternative (i.e., not continuing with the Project), "The current impacts to the threatened Santa Ana Sucker and Arroyo Chub would continue to increase resulting in further impacts from the current warm flows into the Rialto Channel form the WWTP." However, no further information regarding this statement is provided making it unclear how the Project would improve conditions for Santa Ana sucker and arroyo chub. As stated above, CDFW recommends a recirculated

<sup>&</sup>lt;sup>3</sup> USFWS. FWS Focus: Santa Ana Sucker. <a href="https://www.fws.gov/species/santa-ana-sucker-catostomus-santaanae">https://www.fws.gov/species/santa-ana-sucker-catostomus-santaanae</a>

MND include an analysis of any cumulative impacts that could result from the Project, specifically related to Santa Ana sucker and arroyo chub.

#### Impacts to the Vegetation Community

According to the MND (p. 3-18 and 3-19), "Direct impacts to the 8.72 acres of tamarisk thicket, non-native grasslands, ruderal, disturbed and developed communities onsite from Project implementation, are not significant because these areas consist of built environment and non-native vegetation communities. Further, the species found within these vegetation communities include common plant species which are present in large numbers throughout the region and the removal is not considered significant. Direct impacts to 2.57 acres of native vegetation communities (brittlebush scrub, disturbed brittlebush scrub, disturbed California buckwheat scrub, and mulefat thicket) from Project implementation is not considered significant because while native, the limited area does not contain any sensitive species, plants or wildlife, or represent sensitive habitats identified through CNDDB or CDFW sensitive plant communities. The species found within these communities includes common plant species which are present in large numbers throughout the region and the removal is not considered significant." Vegetation type (i.e., native versus non-native) or regional abundance does not necessarily determine habitat value or the use of these areas by wildlife, including special-status species. CDFW is concerned that the MND has trivialized the significance of the Project's potential impacts on wildlife that utilize disturbed areas and non-native or common vegetation communities. For instance, special-status species, such as southwestern willow flycatcher (*Empidonax* traillii extimus), often utilize tamarisk thickets as breeding habitat (Daw 2013, Sogge et al. 2008) and could be directly and/or indirectly impacted by the Project. In addition, concluding that sensitive species are not present based on California Natural Diversity Database (CNDDB) is not an accurate use of this database. CNDDB is a positive detection database. Records in the database exist only where surveys have been conducted and data have been reported. There are no organized inventory or survey efforts designed specifically to populate the database. Places that are empty or have limited information in the database often signify that little survey work has been done there. You should not conclude that species are absent due to lack of information. In addition, the general biological field survey conducted for the MND was not adequate in timing and scope to detect special-status species that could occur on-site. Losses of habitat that could be utilized by special-status species would constitute a significant impact under CEQA that must be mitigated. Impacts to special-status species, regardless of habitat quality, abundance, or location, must be identified, evaluated, and mitigated to a level below significance. Even though the MND (p. 3-20) states "implementation of the RHNC would include creation of new coastal sage scrub and riparian habitats. The creation of the lakes and adjacent habitats provides superior habitat than the vegetation communities being impacted," impacts that could result from vegetation removal must be considered. Replacement of vegetation does not offset Project-induced qualitative and quantitative losses of biological values if these areas are utilized by special-status species.

# **Introducing Non-native Species**

The MND does not address potential non-native species introduction (i.e., bull frog, sport fish) and management strategies if such species are identified. Amphibians, whether accidentally or intentionally introduced to the system, have potential adverse impacts that could include displacement, reduction, or extinction of native species<sup>4</sup>. With regard to sport fish, if introduced to the system, such species could have potential adverse impacts including competition with native species for food and habitat, reduction of natives by predation, transmission of diseases or parasites, and habitat alteration<sup>5</sup>. Non-native species disrupt the complex native ecological communities and the natural evolution of those communities, degrading native habitats and polluting gene pools by hybridization. The presence of nonnative species can also alter water, nutrient cycles, and food chains<sup>6</sup>. All these impacts could directly affect the Project site if non-native introduction occurs, and indirectly affect downstream habitat in the Santa Ana River if non-natives are not properly

<sup>&</sup>lt;sup>4</sup> USGS. Nonindigenous Aquatic Species: Amphibians. <a href="https://nas.er.usgs.gov/taxgroup/amphibians/">https://nas.er.usgs.gov/taxgroup/amphibians/</a>

<sup>&</sup>lt;sup>5</sup> USGS. Nonindigenous Aquatic Species: Fishes. <a href="https://nas.er.usgs.gov/taxgroup/fish/default.aspx">https://nas.er.usgs.gov/taxgroup/fish/default.aspx</a>

<sup>&</sup>lt;sup>6</sup> NPS. Environmental Factors: Nonnative Species. <a href="https://www.nps.gov/glca/learn/nature/nonnativespecies.htm">https://www.nps.gov/glca/learn/nature/nonnativespecies.htm</a>

considered and managed. A recirculated MND should include a comprehensive plan stating how the Project intends to manage non-native species that could potentially be introduced to the system.

#### **Assessment of Biological Resources**

The MND does not adequately identify the Project's significant, or potentially significant, impacts to biological resources. The MND bases its analysis of impacts to biological resources on a general biological field survey conducted by Carlson Strategic Land Solutions, Inc. on January 27, 2023, and a focused survey for Delhi Sands flower-loving fly by Osborne Biological Consulting on February 15 and March 2, 2023. No focused or protocol-level surveys were performed for the detection of other special-status species, and the general biological field survey was not conducted at the appropriate time(s) of year to detect such species. CDFW is concerned about the potential for special-status species to occur on or near the Project site. The Project area encompasses open and disturbed areas, shrubs and grasslands, and waterbodies, and there is high potential for special-status 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 ESA-listed, CESA-listed, Fully Protected, and other special-status species have been reported near the Project area including, but not limited to, the following:

**Plants:** Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), marsh sandwort (*Arenaria paludicola*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Parish's bush-mallow (*Malacothamnus parishii*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), Pringle's monardella (*Monardella pringlei*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), slender-horned spineflower (*Dodecahema leptoceras*), bristly sedge (*Carex comosa*),

**Birds:** burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sparrow (*Artemisiospiza belli*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), California black rail (*Laterallus jamaicensis coturniculus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), yellow warbler (*Setophaga petechia*),

**Fish:** arroyo chub (*Gila orcuttii*), Santa Ana sucker (*Catostomus santaanae*), steelhead – southern California DPS (*Oncorhynchus mykiss irideus* pop. 10),

**Invertebrates:** Crotch's bumble bee (*Bombus crotchii*), Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*),

**Reptiles:** California glossy snake (*Arizona elegans occidentalis*), coast horned lizard (*Phrynosoma blainvillii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego banded gecko (*Coleonyx variegatus abbotti*), Southern California legless lizard (*Anniella stebbinsi*),

**Mammals:** Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), western mastiff bat (*Eumops perotis californicus*), and western yellow bat (*Lasiurus xanthinus*).

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.

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 MND. CDFW is concerned that without a complete and accurate description of the existing environmental setting, the MND 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. The California Rare Plant Rank 1B indicates plants that are rare, threatened, or endangered in California and elsewhere, and California Rare Plant Rank 2B indicates plants that are rare, threatened, or endangered in California but more common elsewhere. Impacts to these species must be analyzed during preparation of environmental documents relating to CEQA because they meet the definition of rare or endangered under CEQA Guidelines §15125 (c) and/or §15380.

To establish the existing environmental setting with respect to biological resources, CDFW recommends that a revised MND include the results of recent biological surveys, at the appropriate time(s) of year, as described in the following mitigation measure as well as any necessary mitigation measures:

## MM BIO-[A]: Assessment of Biological Resources

Prior to adoption of the CEQA document, 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 speciesspecific 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 1, and CDFW-recommended MM-BIO [A] through [F] (see Attachment 1).

# **Nesting Birds**

CDFW is concerned that the MND does not sufficiently identify Project impacts to nesting birds or ensure that impacts are mitigated to a level less than significant. Fourteen avian species were observed on-site during the biological assessment (p. 3-19), and the MND states "the Project site has nesting and foraging habitat for avian species due to the location, surrounding land uses, and the built nature of the Project site." The MND (Appendix B, sub-Appendix D) also states the Project site has potential to support the following special-status species: tricolored blackbird (Agelaius tricolor), southern California rufous-crowned sparrow (Aimophila ruficeps canescens), Bell's sparrow (Artemisiospiza belli), Swainson's hawk (Buteo swainsoni), western yellow-billed cuckoo (Coccyzus americanus occidentalis), California black rail (Laterallus jamaicensis coturniculus), and coastal California gnatcatcher (Polioptila californica californica). 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.

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.).

CDFW appreciates the inclusion of MM BIO-1; however, the measure is insufficient in scope and timing to reduce impacts to nesting birds to a level less than significant. Project-specific avoidance and minimization measures for nesting birds 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. CDFW recommends the City revise Mitigation Measure BIO-1 as follows:

#### MM BIO-1: Nesting Bird Surveys

Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities for each phase of construction. 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. If grading, site disturbance, or operational vegetation maintenance is to

> occur between January 1 through August 15 for raptors and February 15 through August 31 for all other avian species, a nesting bird survey shall be conducted within all suitable habitat, on-site and within 300-feet surrounding the site (as feasible), by a qualified biologist within no more than 5 days of scheduled vegetation removal or start of ground disturbing activities, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall establish buffers around the vegetation (500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e. the juveniles are surviving independent from the nest). The on-site biologist shall review and verify compliance with the no-work buffers and verify the nesting effort has finished. Work can resume when no other active nests are found on-site or within the surrounding buffer area. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas of an active nest with preparation and implementation of a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared documenting mitigation monitoring compliance. If ground disturbances have not commenced within 5 days of a negative survey or if construction activities have stopped for 5 days or longer, the nesting survey must be repeated to confirm the absence of nesting birds.

## **Burrowing Owl**

CDFW is concerned that the MND does not sufficiently identify Project impacts to burrowing owl (*Athene cunicularia*) or ensure that impacts are mitigated to a level less than significant. CDFW notes that in California, preferred habitat for burrowing owl is generally typified by short, sparse vegetation with few shrubs (Haug et al. 1993), and that burrowing owls may occur in ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable and there are useable burrows and foraging habitat proximity (Gervais et al. 2003). In addition, burrowing owls frequently move into disturbed areas prior to and during construction activities since they are adapted to highly modified habitats (Chipman et al. 2008; Coulombe 1971). The Project site contains suitable habitat for burrowing owl.

The MND (Appendix B, p. 36) states "During the field survey, the biologist paid special attention to any mammal burrows suitable for burrowing owl. It is determined the Project site does not contain any suitable sized burrows for the species.". However, the MND also states (p. 3-19) that California ground squirrels have been observed on the Project site and are active, which indicates the potential for establishment of suitable burrows for burrowing owl since the time of the field survey. Additionally, CNDDB/BIOS report occurrences of several burrowing owls 1.5 miles north of the Project site. Suitable burrowing owl habitat has been confirmed on-site and there is a potential for suitable burrows to be established on-site before and during construction. Impacts to burrowing owl from the Project could include take of burrowing owls, their nests, or eggs or destroying nesting, foraging, or overwintering 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 or to cause nest abandonment or failure, and other activities.

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. Take is defined in Fish and Game Code section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill." Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: 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.).

CDFW recommends focused surveys for burrowing owl be conducted for the entirety of the Project site by a qualified biologist in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012 or most recent version) and that results be included in a revised MND. CDFW recommends the City include the following additional mitigation measure in a revised MND:

# MM BIO-[B]: Focused and Pre-Construction Burrowing Owl Surveys

Suitable burrowing owl habitat has been confirmed on the site; 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 vegetation removal or ground-disturbing activities. 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 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.

## Least Bell's Vireo

Least Bell's vireo is an endangered species pursuant to the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) and the federal Endangered Species Act and is additionally afforded protection under Fish and Game Code sections 3503, 3503.5, 3513. The MND (Appendix B, p. 39) states no suitable habitat occurs onsite, but acknowledges that the species "uses habitat which is limited to the immediate vicinity of water courses," which is in proximity to the Project site. Because San Bernardino and Riverside Counties have lost much of the native riparian habitat, the Santa Ana Watershed and Prado Basin provide the best suitable habitat and happen to have the largest

concentration/density of least Bell's vireo in the region. CNDDB/BIOS report recent occurrences of several least Bell's vireo approximately 0.5 miles south of the Project at the Rialto Channel/Santa Ana River outlet. Additionally, the Project site is within 6 miles of the USFWS designated Final Critical Habitat for least Bell's vireo. CDFW is concerned about the impacts to least Bell's vireo including loss of foraging habitat and potential take from ground-disturbing activities and construction noise (see "Construction Noise" section below).

Impacts to birds, their nests, or their habitat would be considered a significant impact under CEQA. Therefore, CDFW recommends focused surveys for least Bell's vireo be conducted for the entirety of the Project site and buffer by a qualified biologist in accordance with the *Least Bell's Vireo Survey Guidelines* (USFWS, January 2001) prior to commencing project-related activities. CDFW recommends the City include the following additional mitigation measure in a revised MND:

## MM BIO-[C]: Least Bell's Vireo Surveys

Prior to commencement of Project activities, a CDFW-approved qualified biologist shall complete necessary surveys, impact assessments, and associated reports within all locations subject to Project activities and a 500-foot buffer following the protocols provided within the Least Bell's Vireo Survey Guidelines (USFWS, January 2001) to ensure avoidance of impacts. All potential least Bell's vireo habitat should be surveyed at least eight times during the period from April 10 through July 31. CDFW and USFWS should be notified of survey findings, including negative findings, within 45 calendar days following the completion of protocol-level surveys. If least Bell's vireos are identified within 500 linear feet of Project site activities, the City shall develop a plan to completely avoid impacts to the species. The City shall not conduct any project activities within 1000 linear feet of occupied least Bell's vireo habitat from March 1 through July 15. The City shall not conduct any project activities within 500 linear feet of occupied least Bell's vireo habitat from July 15 to September 15. If full avoidance cannot be accomplished, the City shall postpone the Project until appropriate CESA authorization is obtained. This may include an incidental take permit (ITP) or a consistency determination.

# CDFW Lake and Streambed Alteration (LSA) Program

The MND (p. 2-6) acknowledges that "Drainage for the RHNC site would be accomplished by a network of v-ditches located on the outside of the perimeter trails that encircle the lakes and on the east side of the site approximately 15 to 20 feet above the perimeter trails. The v-ditches would convey off site stormwater flowing onto the site and on-site flow into the lake via down drains located around the lake." Also, the MND (p. 3-20) indicates the Project vicinity includes the Rialto Channel located on the eastern portion of the Project boundary, but states "the channel is a concrete lined channel with no riparian habitat or other sensitive natural community." Canals and ditches, regardless of whether they are concrete lined, may provide suitable habitat for biological resources. Additionally, CDFW review of aerial imagery confirms the location of the West Riverside Canal that borders the Project area to the south. Thus, impacts to resources subject to Fish and Game Code section 1602 are likely to occur. 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.

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.

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

# MM BIO-[D]: CDFW Lake and Streambed Alteration Program

Prior to construction 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 should obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

#### **Construction Noise**

The MND does not include an assessment of impacts to biological resources resulting from construction noise or mitigation measures to avoid or reduce impacts to a level less than significant. The MND (p. 3-47) states "it is expected that noise levels during construction at the off-site receiver located significantly farther than 50 feet to the north would not exceed the FTAs 80 dBA Leq threshold," and states noise levels for a grader are expected to be approximately 84 dBA and approximately 80 dBA for a front-end loader. However, the MND includes no noise impact assessment or an analysis of the impacts of construction noise on biological resources. Noise levels are expected to exceed exposure levels that may adversely affect wildlife species at 55 to 60 dBA.

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).

Because of the potential for construction noise to negatively impact wildlife, CDFW recommends a revised MND include a noise impact assessment and an analysis of impacts to biological resources accompanied by specific avoidance and minimization measures to ensure that impacts to wildlife are avoided or reduced to less than significant. CDFW recommends adding the following mitigation measure to a revised MND:

# MM BIO-[E]: Construction Noise Impacts to Biological Resources

During all Project construction, the City shall restrict 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 City shall ensure the 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.

# **Artificial Nighttime Light**

The MND does not analyze impacts to biological resources from artificial nighttime lighting and includes no mitigation measures to avoid or reduce impacts to biological resources to a level less than significant. The MND includes contradictory statements, stating (p. 3-33) the proposed Project would include "possible lighting for security and safety of the perimeter trails," while also stating (Appendix B, p. 8) "no lighting is planned on the trail system around the lakes." The MND should correct the discrepancy in the lighting information provided. Designs for artificial nighttime lighting to be used during operation of the Project should be included in a revised MND. The direct and indirect impacts of artificial nighttime 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 to reduce impacts to less than significant should be included in a revised MND.

Artificial nighttime lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife. 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).

Because of the potential for artificial nighttime light to negatively impact wildlife, CDFW recommends a revised MND include details of the use of artificial nighttime lighting proposed for the operation of the Project and an analysis of impacts to biological resources, as well as specific avoidance and minimization measures to ensure that impacts to wildlife are reduced to less than significant. CDFW recommends the City include the following mitigation measure in a revised MND:

# MM BIO-[F]: Artificial Nighttime Light

During Project construction and operation, the City 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 City 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 <a href="http://darksky.org/">http://darksky.org/</a>). The City 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.

# **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:

https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: <a href="https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals">https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals</a>.

#### **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 MND to assist the City of Rialto in identifying and mitigating Project impacts on biological resources. CDFW concludes that the MND does not adequately identify or mitigate the Project's significant, or potentially significant impacts on biological resources. The CEQA Guidelines indicate that recirculation is required when insufficient information in the MND precludes a meaningful review (§ 15088.5) or when a new significant effect is identified and additional mitigation measures are necessary (§ 15073.5). CDFW recommends that a revised MND 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. If the revised MND cannot demonstrate that impacts to biological resources are mitigated to a level that is less than significant, CDFW recommends that an Environmental Impact Report be prepared by the City of Rialto for the Project.

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 Alyssa. Hockaday@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Fruburu
84F92FFEEFD24C8...

Kim Freeburn

**Environmental Program Manager** 

**Attachment 1**: MMRP for CDFW-Proposed Mitigation Measures

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

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

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#### **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.
- Daw, S. 2013. Southwestern Willow Flycatcher: National Park Service, Southern Colorado Plateau Network I&M Program. https://www.nps.gov/articles/southwestern-willowflycatcher.htm#:~:text=The%20replacement%20of%20native%20riparian,do%20successfully%20nest%2 0in%20tamarisk.
- Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415-1419.
- Fuzzen, M. L., Bennett, C. J., Tetreault, G. R., McMaster, M. E., & Servos, M. R. 2015. Severe intersex is predictive of poor fertilization success in populations of rainbow darter (Etheostoma caeruleum). Aquatic Toxicology 160:106-116.
- Gatson, K. J., Bennie, J., Davies, T., Hopkins, J. 2013. The ecological impacts of nighttime light pollution: a mechanistic appraisal. Biological Reviews.
- Gervais, J. A., D. K. Rosenberg, R. G. Anthony. 2003. Space use and pesticide exposure risk of male burrowing owls in an agricultural landscape. Journal of Wildlife Management 67: 155-164.
- 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.
- Hamdhani, H., Eppehimer, D. E., & Bogan, M. T. 2020. Release of treated effluent into streams: A global review of ecological impacts with a consideration of its potential use for environmental flows. Freshwater Biology 65(9):1657-1670.
- Haug, E. A., B. A. Millsap, and M. S. Martell. 1993. Burrowing owl (Speotyto cunicularia), in A. Poole and F. Gill, editors, The Birds of North America, The Academy of Natural Sciences, Philadelphia, Pennsylvania, and The American Ornithologists' Union, Washington, D.C., USA.
- Hicks, K. A., Fuzzen, M. L., McCann, E. K., Arlos, M. J., Bragg, L. M., Kleywegt, S., & Servos, M. R. 2017. Reduction of intersex in a wild fish population in response to major municipal wastewater treatment plant upgrades. Environmental Science & Technology 51(3):1811–1819.
- Jenkins, J. A., Goodbred, S. L., Sobiech, S. A., Olivier, H. M., Draugelis-Dale, R. O., & Alvarez, D. A. 2009. Effects of wastewater discharges on endocrine and reproductive function of western mosquitofish (Gambusia spp.) and implications for the threatened Santa Ana sucker (Catostomus santaanae). US Geological Survey, Reston, VA.
- Johnson, A. C., & Sumpter, J. P. 2001. Removal of endocrine-disrupting chemicals in activated sludge treatment works. Environmental Science & Technology 35(24):4697–4703.
- Kight, C. R., and J. P. Swaddle. 2011. How and why environmental noise impacts animals: An integrative, mechanistic review. Ecology Letters 14:1052–1061.
- Liu S., Y. Zhang, X. Feng, S. Pyo. 2024. Current problems and countermeasures of constructed wetland for wastewater treatment: A review, Journal of Water Process Engineering, Volume 57:104569.
- Longcore, T., and C. Rich. 2004. Ecological light pollution Review. Frontiers in Ecology and the Environment 2:191-198.
- Marjan, P., Van Der Kraak, G. J., MacLatchy, D. L., Fuzzen, M. L., Bragg, L. M., McMaster, M. E., & Servos, M. R. 2018. Assessing recovery of in vitro steroid production in male rainbow darter (Etheostoma caeruleum) in response to municipal wastewater treatment plant infrastructure changes. Environmental Toxicology and Chemistry 37(2):501-514.
- McCallum, E. S., Nikel, K. E., Mehdi, H., Du, S. N., Bowman, J. E., Midwood, J. D., & Balshine, S. 2019. Municipal wastewater effluent affects fish communities: A multi-year study involving two wastewater treatment plants. Environmental Pollution 252:1730-1741.
- Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor
- O'Brien, J. W., and R. M. Barabe. 2022. Status and distribution of Arroyo Chub within its native range. California Fish and Wildlife Journal 108:e5.
- 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.
- 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. Sogge, M.K., S.J. Sferra, and E.H. Paxton. 2008. *Tamarix* as Habitat for Birds: Implications for Riparian
- Restoration in the Southwestern United States. Restoration Ecology, 16:1, pp.146-154.
- Slabbekoorn, H., and E. A. P. Ripmeester. 2008. Birdsong and anthropogenic noise: Implications and applications for conservation. Molecular Ecology 17:72-83.
- 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.
- Wright, A.S., M.A. Doblin, and P.R. Scanes. 2022. Improper Maintenance Activities Alter Benefits of Urban Stormwater Treatment in a Temperate Constructed Wetland in NSW, Australia. Front. Environ. Chem., vol 3.

# 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 adoption of the CEQA document, 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.	Prior to adoption of the CEQA document.	City of Rialto	
MM BIO-1: Nesting Bird Surveys Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities for each phase of construction. 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 each phase of construction.	City of Rialto	
MM BIO-[B]: Focused and Pre-Construction Burrowing Owl Surveys Suitable burrowing owl habitat has been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version)	Focused surveys: Prior to the start of Project-related activities.	City of Rialto	

prior to vegetation removal or ground-disturbing activities. 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 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.

Pre-construction surveys: No less than 14 days prior to start of Projectrelated activities and within 24 hours prior to ground disturbance.

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.

City of Rialto

# MM BIO-[C]: Least Bell's Vireo Surveys

Prior to commencement of Project activities, a CDFWapproved qualified biologist shall complete necessary surveys, impact assessments, and associated reports within all locations subject to Project activities and a 500foot buffer following the protocols provided within the Least Bell's Vireo Survey Guidelines (USFWS, January 2001) to ensure avoidance of impacts. All potential least Bell's vireo habitat should be surveyed at least eight times during the period from April 10 through July 31. CDFW and USFWS should be notified of survey findings, including negative findings, within 45 calendar days following the completion of protocol-level surveys. If least Bell's vireos are identified within 500 linear feet of project site activities, the City shall develop a plan to completely avoid impacts to the species. The City shall not conduct any project activities within 1000 linear feet of occupied least Bell's vireo habitat from

No more than three (3) days prior to vegetation clearing or ground-disturbing activities for each phase of construction.

March 1 through July 15. The City shall not conduct any project activities within 500 linear feet of occupied least Bell's vireo habitat from July 15 to September 15. If full avoidance cannot be accomplished, the City shall postpone the Project until appropriate CESA authorization is obtained. This may include an incidental take permit (ITP) or a consistency determination.		
MM BIO-[D]: CDFW Lake and Streambed Alteration Program  Prior to construction 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 should 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 construction and issuance of any grading permit.	City of Rialto
MM BIO-[E]: Construction Noise Impacts to Biological Resources  During all Project construction, the City shall restrict 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 City shall ensure the 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.	During Project activities.	City of Rialto
MM BIO-[F]: Artificial Nighttime Light During Project construction and operation, the City 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 City 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 City 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.	City of Rialto