Appendix A.

Assessment of Covered Species

Freeman Diversion

Multiple Species Habitat Conservation Plan

Prepared by:

United Water
CONSERVATION DISTRICT

"Conserving Water Since 1927"

June 2020

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1 INTRODUCTION

United Water Conservation District (United) is applying for incidental take permits (ITPs) under Section 10(a)(1)(B) of the Endangered Species Act (ESA) and 2081(b) and (c) of the California Endangered Species Act (CESA) for the rehabilitation and expansion of the Freeman Diversion facility and ongoing operations and maintenance of the facility. An initial screening assessment of covered activities and covered species was completed in 2010 to identify potential activities and candidate species for a Multiple Species Habitat Conservation Plan (MSHCP) and associated ITP application package (United and ENTRIX 2010). The covered activities and covered species screening assessment was updated in 2011 (United and Cardno ENTRIX 2011) and 2015 (United et al. 2015), and again in 2016. The most recent update was based on a search of the 2016 California Natural Diversity Database (CNDDB), following refinements in the engineering design and continued consultation with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Wildlife (CDFW) to develop a final list of covered species for the MSHCP. Since the initial screening assessment and screening assessment updates were completed, changes to covered activities and plan and permit areas have occurred; further scientific assessments and biological surveys have been completed; and additional consultation with the resources agencies has occurred. This document represents the most recent update to the species screening assessment, accounting for the proposed project design and the most up to date survey data and status designations of species potentially impacted by the covered activities that are already listed or have a reasonable likelihood of listing during the permit term.

United used the current screening assessment, which takes into account the initial screening assessment and subsequent updates, as a tool throughout the planning, design, and consultation process associated with the MSHCP. Evaluation of covered activities, their location, and their potential for effects to species provided a reasoned and founded process for the selection of covered species. The covered activities under the MSHCP include renovations of the fish passage facility and the Freeman Diversion infrastructure, water diversion operations, facility and property maintenance, habitat restoration and mitigation, monitoring, and adaptive management measures. This appendix provides a synthesis of the evaluation and covered species selection process carried out by United in the development of the MSHCP for the determination of the need for "take" coverage.

The assessment initially developed a list of species based on available existing information on their status, habitat, and distribution in the vicinity of the MSHCP plan area. The overlap of species habitat with the plan area was determined and quantified using a geographic information system (GIS) platform. An initial assessment of effect was then made based on distribution of habitat in the plan area. Each species was then evaluated according to two set of criteria to designate the species as covered species. The identified covered species represent species that are currently listed as threatened or endangered under the state and/or federal ESA for which there is reasonable potential for incidental take from at least one covered activity or species that have a high probability of becoming listed during the permit term and for which incidental take is reasonably certain to occur. Seven covered species (Table 1) out of 121 species (71 wildlife and 50 plants) were identified.

Tidewater goby remains under evaluation as a covered species. Based on effects analyses to date, United and USFWS consider there to be no reasonable potential for take to this species based on any of the current proposed covered activities, conservation measures, or monitoring measures. However, United is in the process of conducting a mitigation working group and there is potential that the group will identify mitigation projects in or around the Santa Clara River estuary. Also, there is potential for monitoring measures in the estuary. Therefore, tidewater goby was retained in this draft for discussion with the agencies pending mitigation and monitoring decisions. If no mitigation or monitoring in the estuary is ultimately proposed, then tidewater goby will not be included as a covered species in the final MSHCP.

Table 1 MSHCP Covered Species			
Species	**Federal Status**	**State Status**	**Critical Habitat Designated**
Fish			
Pacific lamprey (*Entosphenus tridentatus*)	None	SSC	No
Southern California steelhead (*Oncorhynchus mykiss*)	E	None	Yes
Tidewater goby (*Eucyclogobius newberryi*)	E	None	Yes
Reptiles			
Western pond turtle (*Actinemys marmorata*)	None	SSC	No
Birds			
Least Bell's vireo (*Vireo bellii pusillus*)	E	E	Yes
Southwestern willow flycatcher (*Empidonax traillii extimus*)	E	E	Yes
Yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	T	E	No
E = endangered, T = threatened, SSC = California Species of Special Concern			

2 BACKGROUND

2.1 REGULATORY CONTEXT

Covered species in this MSHCP are those species that United is requesting coverage under an ITP issued under the ESA and, for a few of the species, CESA. Under the ESA, NMFS and USFWS provide assurances under the "No Surprises" policy for species not currently listed, but that have the potential to become listed in the life of the HCP. CESA does not include "no surprises" assurances, therefore CDFW can only issue an ITP for currently listed species. The *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* provides the following recommendation for selecting covered species:

> *The Services require applicants to include as HCP covered species all ESA-listed wildlife species for which incidental take is reasonably certain to occur, unless take is addressed through a separate ESA mechanism (e.g., Section 7 consultation with another Federal agency, separate incidental take permit, etc.), or to explain or demonstrate in the HCP why take is not anticipated or will be avoided during implementation of covered activities (e.g., inclusion of measures that will avoid potential for take) (USFWS and NMFS 2016).*

The HCP Handbook also suggests:

> *Species that may be ESA-listed during the permit term and are expected to be taken from proposed activities should be considered for inclusion as a covered species. Common species, or species that have very low likelihood of becoming ESA-listed, should not be covered by the HCP because every species included involves commitments of time and money by both the applicant and the Services.*

United has considered this guidance, but, given a history of third party litigation in the watershed, United has implemented a more conservative set of criteria to identify seven types of species, subspecies, or distinct population segments for coverage. Despite the differing levels of taxonomic classification, all entities considered for ITP coverage are described as "species" in this document to ease communication. Four are federally endanged (southern California steelhead, tidewater goby, least Bell's vireo, and southwestern willow flycatcher), one is federally threatened (western yellow-billed cuckoo), and two have no current federal status (Pacific lamprey and western pond turtle). It is feasible that Pacific lamprey and western pond turtle could become listed during the permit term and incidental take is reasonably certain to occur once listed given the covered activities, therefore United is seeking to conserve these species and is interested in the associated no surprises assurances through an MSHCP agreement. Three of the covered species are listed as endangered by the state of California (least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo) and four are California state species of special concern (southern California steelhead, Pacific lamprey, tidewater goby, and western pond turtle).

Three of the identified species have designated critical habitat in the permit area: Southern California steelhead, southwestern willow flycatcher, and tidewater goby. A small portion of least Bell's vireo critical habitat falls in the plan area at the extreme eastern edge of the conservation focused permit area (see Chapter 4 for more detail).

2.2 PRIOR SCREENING ASSESSMENT OF COVERED ACTIVITIES AND COVERED SPECIES

The Screening Assessment of Covered Activities and Covered Species (screening assessment) developed by United in 2010 and updated in 2011, 2015, and 2016, was a tool used to inform the selection of covered activities and covered species during the planning and consultation process. The screening assessment included an overview of United's activities carried out across the service area, the potential effects of those activities, whether those activities already had incidental take coverage through Section 7, and a preliminary determination of the need for "take" coverage for those activities. Subsequently, the screening assessment included a list of covered species based on available existing information on their status, habitat, and distribution in the vicinity of all United activities. The overlap of species habitat with the disturbance area for United's activities was determined and quantified using a GIS platform. An initial assessment of effect was then made based on distribution of habitat in the analysis area. The results of the screening assessment included a preliminary list of covered activities and covered species; however, as noted in the screening assessment, the final list of covered activities and covered species, as well as additional explanation on the decision process, would be included in the MSHCP (United et al. 2015).

3 METHODS

Evaluation of species inclusion under the MSHCP initially involved database research on known species occurrences and designated critical habitat within and in the vicinity of the permit area. Following the database research, an assessment of each species was conducted in the context of the MSHCP covered activities to determine if the species is likely to occur in or near the permit area and if "take" is "reasonably certain to occur" or has the potential to occur with or without the implementation of the conservation measures. Throughout this evaluation process, on-going consultation with USFWS, NMFS, and CDFW has informed the selection process of the MSHCP covered species.

3.1 LITERATURE REVIEW AND DATABASE QUERIES

To determine the list of special-status species considered for potential inclusion in the MSHCP, United queried relevant databases of species occurrence records and designated critical habitat. For the purposes of this evaluation, United queried the following datasets as part of the review process:

- California Natural Diversity Database (CNDDB) point and polygon datasets (CDFG 2019),
- USFWS Information for Planning and Consultation (IPaC) (USFWS 2020),
- USFWS critical habitat datasets (USFWS 2019),
- United boundary dataset (United 2009a) and facilities shapefile (United 2009b), and
- Santa Clara River watershed, obtained from the Calwater v 2.2.1 dataset (Calwater 1999).

A literature review was previously completed for the prior screening assessment (United et al. 2015) and the review contained herein includes those species originally evaluated with updates to their status under the ESA and CESA, if applicable, as well as any additional species captured in the current database queries or updated observations by United staff. The spatial scale of the database queries was expanded to encompass species data available within Ventura County. However, species documented in the database queries that are within Ventura County but have no evidence of occurrence anywhere near the plan area (e.g. blunt-nosed leopard lizard) were excluded from the evaluation.

3.2 AGENCY CONSULTATION

Factors considered in evaluating whether or not a particular activity should be included in the ITP included whether the activity is ongoing, proposed, or expected to occur during the term of the permit; if the activity has a federal nexus; and the relative potential for "take" from the activity. Throughout the consultation process beginning in 2008 and continuing into 2020, United has been in regular coordination with NMFS, USFWS, and CDFW regarding the activities and species that have been considered for coverage. As the applicant, United is responsible for determining whether a particular activity or species should be included in the MSHCP; however, this close coordination has resulted in a refined list of activities and species proposed for coverage explained in more detail in Chapters 3 and 4 respectively.

3.3 CRITERIA FOR POTENTIAL TO EFFECT DETERMINATION

Assessments for the potential effects to special status species are based upon criteria including known ranges, habitat preferences for the species, habitat available within the permit area, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the permit area, previous reports for the permit area, and the results of surveys conducted in association with the Freeman Diversion and general United activities as well as incidental observations by United staff and contractors during United activities. The potential for effects to special status species to occur as a result of covered activities during the permit term were evaluated against the criteria above as well as the species current and projected future listing

status under the ESA in support of a determination of whether to include a given species as a covered species under the MSHCP and ITP.

United assessed the likelihood of occurrence for each species based on the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), or the species would have been identified on-site if present (e.g., plant species). No known incidental observations of the species or observations following focused or protocol surveys in the permit area.
- **Low.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. No known observations of the species in the permit area.
- **Moderate**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site. Historic observation of the species within or in the vicinity of the permit area.
- **High.** All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. Recent observations of the species within or in the vicinity of the permit area.

For species with moderate to high potential to occur in the permit area, United then assessed each species behavior and natural history in the context of United's covered activities in the permit area and made a determination as to whether or not incidental take was "reasonably certain to occur" or if there was reasonable potential for take. Species were designated "covered species" under one of the following set of criteria:

1.) The species has moderate to high potential to occur, is not currently listed but could be during the permit term, and incidental take is reasonably certain to occur during covered activities.

2.) The species has moderate to high potential to occur, is listed as threatened or endangered at the state or federal level, there is a reasonable potential for take to occur during covered activities.

4 RESULTS

4.1 SPECIES CONSIDERED FOR COVERAGE UNDER THE MSHCP

Table 2 below provides an overview of the species considered for coverage under the MSHCP and inclusion in the ITP. This table has been adapted from the screening assessment (United et al. 2015) and updated to reflect the results of the current literature review, database queries, and assessment.

Table 2 Designation of Species Assessed under the MSHCP

Scientific Name/ Common Name	Status	Reasonable Potential for Take from at Least One Covered Activity	Covered Species (yes/no)	Notes
Fishes				
Catostomus santaanae (Santa Ana sucker)	ESA threatened (but not in Santa Clara River), California species of special concern; not likely to be listed during the permit term	Yes	No	Historically, the range of Santa Ana suckers was assumed to be restricted to the Los Angeles Basin and with introductions in the Santa Clara River. However, recent genetics (Richmond et al. 2016) suggests they may in fact be native to the Santa Clara River. However, the ESA listing includes only drainages in the Los Angeles Basin and USFWS has communicated that the Santa Clara River population is healthy and not likely to become listed (C. Dellith, pers. Comm.).
Eucyclogobius newberryi (tidewater goby)	ESA endangered, California species of special concern	[TBD]	[TBD]	Species occurs in the estuary and lower portions of the Santa Clara River. United's estuary effects analysis suggests proposed operations are not reasonably certain to cause take (Stillwater 2016). Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP. [REVISIT FOLLOWING MITIGATION WORKING GROUP PROCESS]
Gasterosteus aculeatus williamsoni (unarmored-threespine stickleback)	ESA endangered, California endangered and fully protected	No	No	Species occurs in the channel of the Santa Clara River and some tributaries in Los Angeles County. Further genetic studies are necessary to determine if stickleback in Piru and Santa Clara River system are the unarmored species. The species is not considered to be at risk as a result of operation and maintenance activities associated with the Freeman Diversion facility during the permit term.
Gila orcuttii (arroyo chub)	California species of special concern, USFS sensitive	Yes	No	Species occurs in the channel of the Santa Clara River and some tributaries; while native to the southern California region, arroyo chub have historically been considered introduced into the Santa Clara River watershed (CDFW 2015)." This species would be affected by flow-related activities; however, sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW during the permit term.
Entosphenus tridentatus (Pacific lamprey)	No ESA, state, or sensitive status; reasonable probability of listing during permit term	Yes	Yes	Species occurs in the channel of the Santa Clara River and some tributaries. This species would be affected by flow-related activities and presence of barriers and is an anadromous species that is vulnerable to passage barriers. Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP.
Oncorhynchus mykiss (southern California steelhead)	ESA endangered, California species of special concern	Yes	Yes	Species occurs in the channel of the Santa Clara River and some tributaries. This species would be affected by flow-related activities and presence of barriers. Sufficient information is known and adequate to define measures to support an application for a Section 10(a)(1)(B) ITP.
Amphibians				
Anaxyrus californicus (arroyo toad)	ESA endangered, California species of special concern	No	No	Species occurs in riparian areas below Castaic, Pyramid, and Bouquet Reservoirs. The species is not considered to be at risk of take as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Rana draytonii (California red-legged frog)	ESA threatened, California species of special concern	No	No	Species has not been documented in the permit area. The species is not considered to be at risk of take as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Rana boylii (foothill yellow-legged frog)	California species of special concern, USFS sensitive species; likely to be listed during the permit term	No	No	Species historically occurred in riparian areas below Pyramid Lake. The species is not considered to be at risk of take as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Spea hammondii (western spadefoot)	California species of special concern; unlikely to be listed during the permit term	No	No	Species has not been documented in the permit area. Sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Taricha torosa (coast range newt)	California species of special concern; unlikely to be listed during the permit term	No	No	Terrestrial individuals are relatively inactive in subterranean refuges most of the year. Migrations to and from breeding areas usually occur at night during, or just following, rains. Sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Birds				
Accipiter ccoperii (Cooper's hawk)	California watchlist	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Agelaius tricolor (tricolored blackbird)	California threatened	No	No	Species occurs in emergent marsh habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Aimophila ruficeps canescens (southern California rufous-crowned sparrow)	California watchlist	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Ammodramus savannarum (grasshopper sparrow)	California species of special concern	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Aquila chrysaetos (golden eagle)	California fully protected, watch list	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Athene cunicularia (burrowing owl)	California species of special concern	No	No	Species occurs in upland habitats and has been observed sheltering and foraging near the recharge basins. Nesting has not been observed in the permit area and the species is considered to be at low risk as a result of covered activities associated with the Freeman Diversion facility during the permit term.
Buteo regalis (ferruginous hawk)	California watchlist	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Charadrius alexandrinus nivosus (western snowy plover)	ESA threatened, California species of special concern	No	No	Species occurs in beach and marsh habitats, which would not be noticeably affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Complete nest avoidance measures were added to CM 2.1.7 in Chapter 5.
Coccyzus americanus occidentalis (western yellow-billed cuckoo)	ESA threatened, California endangered, USFS sensitive species	Yes	Yes	Species occurs in riparian scrub and forest habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP.
Elanus leucurus (white-tailed kite)	California fully protected	No	No	Species occurs in upland habitats, which would not be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.

Table 2 Designation of Species Assessed under the MSHCP

Scientific Name/ Common Name	Status	Reasonable Potential for Take from at Least One Covered Activity	Covered Species (yes/no)	Notes
Empidonax traillii extimus (southwestern willow flycatcher)	ESA endangered, California endangered	Yes	Yes	Species occurs in riparian scrub and forest habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP.
Eremophila alpestris actia (California horned lark)	California watchlist	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Falco mexicanus (prairie falcon)	California watchlist	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Falco peregrinus anatum (American peregrine falcon)	ESA delisted, California delisted, California fully protected	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Gymnogyps californianus (California condor)	ESA endangered, California endangered/fully protected	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Icteria virens (yellow-breasted chat)	California species of special concern	Yes	No	Species occurs in riparian scrub and forest habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Passerculus sandwichensis beldingi (Belding's savannah sparrow)	California endangered	No	No	Species occurs in saltmarsh habitats, which would not be noticeably affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Pelecanus occidentalis californicus (California brown pelican)	ESA delisted, California delisted\fully protected	No	No	Species occurs in beach and marsh habitats, which would not be noticeably affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Phalacrocorax auratus (double-crested cormorant)	California watchlist	No	No	Species occurs in beach and marsh habitats, which would not be noticeably affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Polioptila californica californica (coastal California gnatcatcher)	ESA threatened, California species of concern	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Rallus longirostris levipes (light-footed Ridgway's rail)	ESA endangered, California endangered/fully protected	No	No	Species occurs in beach and marsh habitats, which would not be noticeably affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Riparia riparia (bank swallow)	California threatened	No	No	Species occurs along rivers, which have the potential to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. However, no nesting habitat is present within the vicinity of the Freeman Diversion facility and the species is considered to be at low risk as a result of construction, operation and maintenance activities associated with the Freeman Diversion facility during the permit term.
Setophaga petechia (yellow warbler)	California species of special concern	Yes	No	Species occurs in riparian scrub and forest habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Sternula antillarum browni (California least tern)	ESA endangered, California endangered/fully protected	No	No	Species occurs in beach and marsh habitats, which would not be significantly affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. This species has been observed a few times foraging in the vicinity of the Oxnard Plain recharge facilities, but has not been observed near the Freeman Diversion or in the vicinity of the recharge basins in the last 7 years during protocol surveys and no impacts are expected as a result of proposed operation and maintenance activities associated with the Freeman Diversion facility during the permit term. Complete avoidance of nests during covered fish relocation and monitoring activities is addressed in CM 2.1.7 in Chapter 5.
Vireo bellii pusillus (least Bell's vireo)	ESA endangered, California endangered	Yes	Yes	Species occurs in riparian scrub and forest habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP.
Mammals				
Antrozous pallidus (pallid bat)	California species of special concern, USFS sensitive	No	No	The species is most common in open, dry habitats with rocky areas for roosting. Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Choeronycteris mexicana (Mexican long-tongued bat	California species of special concern	No	No	Species roosts in caves, mines and buildings. Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Corynorhinus townsendii (Townsend's big-eared bat)	California species of special concern, USFS sensitive	No	No	Species is known primarily from mesic habitats throughout California, which have the potential to be affected by United activities. Roosts in caves, mines, tunnels, buildings or other human-made structures. No roosting habitat within the area encompassing covered activities. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Euderma maculatum (spotted bat)	California species of special concern	No	No	Species occurs in some riparian habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Eumops perotis californicus (western mastiff bat)	California species of special concern	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Lepus californicus bennettii (San Diego black-tailed jackrabbit)	California species of special concern	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Microtus californicus stephensi (south coast marsh vole)	California species of special concern	No	No	Species occurs in some riparian and upland habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Neotamias speciosus callipeplus (Mount Pinos chipmunk)	USFS sensitive species	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.

Table 2 Designation of Species Assessed under the MSHCP				
Scientific Name/ Common Name	**Status**	**Reasonable Potential for Take from at Least One Covered Activity**	**Covered Species (yes/no)**	**Notes**
Neotoma lepida intermedia (San Diego desert woodrat)	California species of special concern	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Onychomys torridus ramona (southern grasshopper mouse)	California species of special concern	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Perognathus alticola inexpectatus (Tehachapi pocket mouse)	California species of special concern, USFS sensitive species	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Perognathus inornatus inornatus (San Joaquin pocket mouse)	California species of special concern, USFS sensitive species	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Sorex ornatus salicornicus (southern California saltmarsh shrew)	California species of special concern	No	No	Species occurs in riparian and salt marsh habitats, which have the potential to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Taxidea taxus (American badger)	California species of special concern	No	No	Species occurs in upland habitats, which would unlikely be affected by United activities. The species also occurs in the Oxnard Plain recharge facilities and is considered to be at low risk as a result of operation and maintenance activities associated with the Freeman Diversion facility during the permit term. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Reptiles				
Actinemys marmorata (western pond turtle)	California species of special concern, USFS sensitive species; high probability of listing during permit term	Yes	Yes	Species occurs in riparian habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known, and adequate existing management prescriptions can be defined and implemented sufficiently to support an application for a Section 10(a)(1)(B) ITP.
Anniella [pulchra/ stebbinsi] (legless lizard)	California species of special concern, USFS sensitive species	No	No	Species occurs in some riparian, upland, and beach habitats, which have the potential to be affected by United activities. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Phrynosoma blainvillii (coast [San Diego] horned lizard)	California species of special concern, USFS sensitive species	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Thamnophis hammondii (two-striped garter snake)	California species of special concern, USFS sensitive species	No	No	Species has two known occurrences in the vicinity of the Freeman Diversion facility and occurs in riparian habitats, which will likely be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP. Sufficient information is known regarding the species and it is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Thamnophis sirtalis ssp. (south coast garter snake)	California species of special concern	No	No	Species occurs in riparian habitats, which have the potential to be affected by United activities. Species is not expected to be listed as endangered or threatened by the USFWS or CDFW.
Invertebrates				
Bombus crotchii (Crotch bumble bee)	California candidate endangered[1]	No	No	In California, inhabits open grassland and scrub habitats, primarily nesting underground, often in rodent burrows. These upland habitats are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Branchinecta conservatio (Conservancy fairy shrimp)	ESA endangered	No	No	Occurs in vernal pools in the Los Padres National Forest. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Branchinecta lynchi (vernal pool fairy shrimp)	ESA threatened	No	No	Occurs in vernal pools in the Santa Clara River watershed. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Streptocephalus woottoni (Riverside fairy shrimp)	ESA endangered	No	No	Occurs in vernal pools in Riverside, Orange, and San Diego Counties. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Plants				
Acanthoscyphus parishii var. *abramsii* (Abrams' oxytheca)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Allium howellii var. *clokeyi* (Mt. Pinos onion)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Arctostaphylos glandulosa ssp. *gabrielensis* (San Gabriel manzanita)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Astragalus brauntonii (Braunton's milk-vetch)	ESA endangered, CRPR 1B	No	No	Species occurs in upland habitats including coastal scrub, grassland, and chaparral. Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Astragalus didymocarpus var. milesianus (Miles' milk-vetch)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.

[1] Species designated as candidate for listing are temporarily afforded the same protections as a state-listed endangered or threatened species. Following completion of a species status report, the California Fish and Game Commission must decide whether the petitioned action is warranted. If the Commission finds that the petitioned action is not warranted, the process ends, and the species will be removed from the list of candidate species. If the Commission finds that the petitioned action is warranted, the species will be added to the list of threatened or endangered species (CDFW 2020)

Table 2 Designation of Species Assessed under the MSHCP

Scientific Name/ Common Name	Status	Reasonable Potential for Take from at Least One Covered Activity	Covered Species (yes/no)	Notes
Astragalus leucolobus (Big Bear Valley woollypod)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Astragalus pycnostachyus var. *lanosissimus* (Ventura Marsh milk-vetch)	ESA endangered, California endangered, CRPR 1B	No	No	Species occurs in beach and marsh habitats. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Astragalus traskiae (Trask's milk-vetch)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Atriplex coulteri (Coulter's saltbush)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Atriplex pacifica (south coast saltscale)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Atriplex serenana var. davidsonii (Davidson's saltscale)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Berberis nevinii (Nevin's barberry)	ESA endangered, California endangered, CRPR 1B	No	No	Species occurs in upland habitats, which would unlikely be affected by covered activities.
Calochortus clavatus var. *gracilis* (slender mariposa-lily)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Calochortus palmeri var. *palmeri* (Palmer's mariposa-lily)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Calochortus plummerae (Plummer's mariposa-lily)	Not imperiled (CRPR 4)	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Calochortus fimbriatus (late-flowered mariposa-lily)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Calystegia peirsonii (Peirson's morning-glory)	Not imperiled (CRPR 4)	No	No	Species occurs in upland habitats, which are not expected to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Castilleja gleasonii (Mt. Gleason paintbrush)	California rare, USFS sensitive	No	No	Occurs in higher elevations in the watershed, which do not have the potential to be affected by covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Chaenactis glabriuscula var. *orcuttiana* (Orcutt's pincushion)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Chloropyron maritimum ssp. *maritimum* (salt marsh bird's-beak)	ESA endangered, California endangered, CRPR 1B	No	No	Species occurs in beach and marsh habitats. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Chorizanthe parryi var. *fernandina* (San Fernando Valley spineflower)	ESA proposed threatened, California endangered, CRPR 1B, USFS sensitive	No	No	Occurs in sandy places on foothills, mixed grassland and chaparral communities. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Chorizanthe parryi var. *parryi* (Parry's spineflower)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Delphinium parryi ssp. blochmaniae (dune larkspur)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Delphinium umbraculorum (umbrella larkspur)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Dodecahema leptoceras (slender-horned spineflower)	ESA endangered, California endangered, CRPR 1B	No	No	Occurs in alluvial fans, floodplains, stream terraces, washes and associated benches. The species is not considered to be at risk as a result of covered activities associated with the Freeman Diversion facility during the permit term of the ITP.
Dudleya abramsii ssp. parva (Conejo dudleya)	ESA threatened, CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Dudleya verityi (Verity's dudleya)	ESA threatened, CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Eriogonum crocatum (Conejo buckwheat)	California rare, CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Eriogonum kennedyi var. *alpigenum* (southern alpine buckwheat)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Fritillaria ojaiensis (Ojai fritillary)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Galium grande (San Gabriel bedstraw)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.

Table 2 Designation of Species Assessed under the MSHCP

Scientific Name/ Common Name	Status	Reasonable Potential for Take from at Least One Covered Activity	Covered Species (yes/no)	Notes
Harpagonella palmeri (Palmer's grapplinghook)	Not Imperiled (CRPR 4)	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Helianthus nuttallii ssp. *parishii* (Los Angeles sunflower)	CRPR 1A	No	No	Species is presumed extirpated and has no overlap of occurrences or habitat with the area of effect for the covered activities.
Lasthenia glabrata ssp. *coulteri* (Coulter's goldfields)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Layia heterotricha (pale-yellow lavia)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Lepechinia rossii (Ross' pitcher sage)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Malacothamnus davidsonii (Davidson's bush-mallow)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Malacothrix similis (Mexican malacothrix)	CRPR 2	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Monardella hypoleuca ssp. Hypoleuca (white-veined monardella)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Monardella linoides ssp. *oblonga* (Tehachapi monardella)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Navarretia fossalis (Moran's navarretia)	ESA threatened, CRPR 1B	No	No	Occurs in vernal pools in the Santa Clara River watershed. Vernal pools located near riparian habitats have the potential to be affected by United activities.
Navarretia ojaiensis (Ojai navarretia)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Navarretia peninsularis (Baja navarretia)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Opuntia basilaris var. *brachyclada* (short-joint beavertail)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Orcuttia californica (California Orcutt grass)	ESA endangered, California endangered	No	No	Occurs in vernal pools in the Santa Clara River watershed. Vernal pools located near riparian habitats have the potential to be affected by United activities.
Orobanche valida ssp. *valida* (Rock Creek broomrape)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Senecio aphanactis (chaparral ragwort)	CRPR 2	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Sidalcea neomexicana (Salt Spring checkerbloom)	CRPR 2, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Stylocline masonii (Mason's neststraw)	CRPR 1B, USFS sensitive	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Suaeda esteroa (estuary seablite)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.
Symphyotrichum greatae (Greata's aster)	CRPR 1B	No	No	Species has no overlap of occurrences or habitat with the area of effect for the covered activities.

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4.2 COVERED SPECIES

The selection of covered species is intrinsically connected to the covered activities identified in the MSHCP due to the geographical, spatial, and temporal effects that these activities have on the species included in the evaluation as well as their current or potential future protected status. Therefore, covered species selected for inclusion under the ITP include those species currently listed as threatened or endangered under the ESA or CESA and identified as having the potential for take during the permit term due to the implementation of one or more covered activities. Additionally, the species not currently listed as threatened or endangered under the ESA or CESA that were selected as covered species include only those that have the reasonably foreseeable potential to become ESA and/ or CESA-listed during the permit term and for which take is reasonably certain to occur. As noted in Table 1 and Table 2, a total of seven species are included as covered species in the MSHCP. These species include:

- Southern California Steelhead (*Oncorhynchus mykiss*)
- Tidewater Goby (*Eucyclogobius newberryi*)
- Pacific Lamprey (*Entosphenus tridentatus*)
- Western Pond Turtle (*Actinemys marmorata*)
- Southwestern Willow Flycatcher (*Empidonax traillii extimus*)
- Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)
- Least Bell's Vireo (*Vireo bellii pusillus*)

Through continued consultation and coordination with the USFWS and NMFS, four species were removed from the covered species list including one federal and state listed species, California least tern (*Sternula antillarum browni*) and three California species of special concern, yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), and two-striped garter snake (*Thamnophis hammondii*). Although preliminarily identified as covered species, California least tern was determined to not be at risk of take as a result of covered activities following focused surveys between 2013-2019, which resulted in negative findings and addition of complete avoidance during fish relocation and monitoring activities added to CM 2.1.7 in Chapter 5. Yellow-breasted chat, yellow warbler, and two-striped garter snake, while they are known to occur within and in the vicinity of the covered activities, are not anticipated to be ESA-listed during the permit term, and therefore, did not warrant covered species status under the MSHCP. However, it should be noted that any conservation measures that conserve or restore riparian habitat will benefit these species as well. Additionally, cowbird control of any kind will benefit these birds as well as the covered birds if implemented as a covered measure. Therefore, United anticipates benefits to these species through the MSHCP even though they are not currently proposed as covered species.

Similarly, under CESA, covered species include those that are currently listed as threatened, endangered, or candidate species; however, special consideration was not given to special-status species not listed under CESA due to the lack of a "No Surprises" policy. Of the seven species included as covered species in the MSHCP requiring take coverage under the ITP, a total of three are listed under CESA, requiring coverage under a Fish & Game Code § 2080.1 Consistency Determination (CD) or 2081(b) Incidental Take Permit (ITP). These species include:

- Southwestern Willow Flycatcher
- Yellow-Billed Cuckoo
- Least Bell's Vireo

Both listed and non-listed species that were not selected as covered species, although they may occur within the plan area, are not anticipated to be affected by the covered activities and/ or are not anticipated to become ESA-listed during the permit term. As noted above, four species were removed from coverage under the MSHCP; however, avoidance and minimization measures will be implemented as part of the construction,

operations, and maintenance of the Freeman Diversion facility and will likely protect and benefit these species as well.

5 REFERENCES

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