

Appendix C

Coachella Valley Conservation Commission

Joint Project Review

Submitted November 2, 2022

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Project Summary

CVCC ID	22-002
Applicant	Global Water Farms
Permittee	County of Riverside
APN(s)	731-170-001
Total Acreage	66.25 acres
Conservation Area	Dos Palmas
Conservation Area	
Disturbance Acreage	66 acres

Introduction

The Joint Project Review Process

The Coachella Valley Conservation Commission (CVCC) is a joint powers authority tasked with overseeing the implementation of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP or Plan). Among other responsibilities, CVCC is tasked with conducting the Joint Project Review (JPR) process as defined in section 6.6.1.1 of the Plan for any potential development taking place in a Conservation Area¹ that may impact Conservation Objectives. The JPR process allows CVCC to facilitate and monitor the implementation of the CVMSHCP and to assist Permittees in meeting the Conservation Goals and Objectives of the Plan. The intention of this JPR document is to inform the Permittee whether a proposed development project complies with Plan requirements, and in no way limits their land use authority.

The JPR process is designed to streamline appropriate development projects while maintaining adequate time for regulatory review. Within 30 days of receipt of a complete project application from a Permittee, CVCC will conduct a geospatial analysis of how the project may impact Conservation Area Conservation Objectives and required measures as described in section 4.3, Rough Step parameters as described in section 6.5, Covered Species Conservation Goals and Objectives as described in section 9, and natural community Conservation Goals and Objectives as described in section 10. CVCC will prepare their findings for comment and submit them to the Permittee, the project applicant, and the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (collectively, Wildlife Agencies). Any comments must be submitted to CVCC within 30 days, after which CVCC will finalize its recommendation regarding project consistency and submit to the Permittee. Additional consultation between CVCC, the project applicant, and the Permittee may be required if inconsistencies with Plan requirements are identified.

¹ Capitalized phrases not otherwise defined in this report share the same meaning as found in the CVMSHCP Definitions section available at <https://cvmshcp.org/Plan-Documents/05-CVAG-MSHCP-Plan-Definitions.pdf>.

Project Description

The applicant, Global Water Farms (GWF), proposes a pilot desalination project in unincorporated Riverside County, approximately 7 miles east of the Salton Sea and immediately north of the boundary with Imperial County, on Assessor Parcel Number (APN) 731-170-001 (Figure 1). The pilot project will serve as a demonstration of GWF's proprietary desalination technology, and, if successful, will be expanded into a permanent, full-time facility. The pilot project will obtain water from an existing agricultural well located on the property, and processed water will initially be discharged directly to the environment. Pending treatment certification, water will be sold for commercial use rather than discharged. GWF anticipates a daily production of ¼ acre-foot of processed water per day, with minimal liquid waste produced; solid waste, consisting primarily of salt, will be removed from the site on a monthly basis. Site operation is fully autonomous with remote monitoring. Access will be via existing roads initially constructed to serve the adjacent Coachella Canal. The pilot project is anticipated to last five years.

The pilot desalination project will require approximately 3 acres for the demonstration facility and laydown site. Site improvements will include construction of a single treatment building, a solid waste containment structure, a ground-mounted solar field, and storm water retention basin. Exterior groundcover will consist of aggregate, with the exception of concrete pads for an ADA-compliant parking stall and path, restroom facilities, and a propane tank. If the demonstration is successful and a long-term source of water is identified, GWF proposes a full buildout that would require approximately 63 additional acres on a separate portion of the same parcel. Specific designs for the full buildout have not yet been drafted, but the proposed footprint has been included for analysis under this JPR.

GWF has not proposed any permanent conservation as part of the pilot project, but may include conservation actions as part of the full buildout.

Conservation Context

The desalination pilot project and potential buildout (hereafter referred to collectively as Project) will take place entirely within the Dos Palmas Conservation Area (DPCA) (Figure 2). The DPCA is bordered by the Orocopia Mountains to the north, Salton Sea to the west, and Chocolate Mountains to the east. Its southern boundary is defined by the boundary between Riverside County and Imperial County. The Coachella Canal runs along the eastern and northern boundary of the DPCA. The DPCA encompasses the Dos Palmas Area of Critical Environmental Concern (ACEC), managed by the Bureau of Land Management (BLM), the Oasis Springs Ecological Reserve, managed by CDFW, and portions of the Salton Sea Recreation Area, managed by the California Department of Parks and Recreation.

The DPCA contains Core Habitat for crissal thrasher and desert pupfish, the latter of which occurs naturally in Salt Creek as it enters the Salton Sea, and at three additional refugia populations. It also contains one of two known habitat areas within the CVMSHCP for both the California black rail and Yuma clapper rail. Additional Other Conserved Habitat for desert tortoise, flat-tailed horned lizard, Le Conte's thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, southern yellow bat, and Orocopia sage can also be found within the DPCA, with the flat-tailed horned lizard habitat providing important contiguity to habitat south of the Plan

boundary in Imperial County. The numerous riparian channels in the DPCA also provide breeding and migratory habitat for the riparian bird species protected by the Plan.

Many of the Natural Communities protected by the CVMSHCP are unique to the DPCA, including arrowweed scrub, cismontane alkali marsh, and mesquite bosque. The majority of the desert sink scrub identified within the Plan boundary is located within this Conservation Area. The DPCA also contains desert dry wash woodlands, desert fan palms oases, mesquite hummocks, and Sonoran creosote bush scrub. Tamarisk is highly prevalent in the area.

Various fault lines running through the area, including the San Andreas fault, Mecca Hills fault, Hidden Springs fault, and Hot Springs fault, have forced groundwater to the surface and promoted the establishment of naturally occurring wetlands, including those within the Dos Palmas ACEC. Non-naturally occurring wetlands had established in the area due to historical leakage from the Coachella Canal, but have largely dried out since the canal was lined with concrete in 2006. Furthermore, construction of the canal along the northern and eastern perimeter of the DPCA has severed naturally occurring drainages from the Orocopia and Chocolate Mountains. The Dos Palmas ACEC drainage through Salt Creek, however, remains intact. Wildlife connectivity is also limited by the canal, but numerous points where the canal runs underground allows for movement to the east and north.

In addition to conservation of the Core Habitat, Other Conserved Habitat, and Natural Communities discussed above, additional conservation goals for the DPCA include removing tamarisk, controlling non-native fish populations in desert pupfish habitat, and specific conditions for the widening of Highway 111, which runs along the Salton Sea shoreline through the Conservation Area.

Conservation Assessment

Project Impacts

Full Project buildout is anticipated to result in 66.25 acres of ground disturbance, all of which takes place within the DPCA. To determine any proposed development's impact to CVMSHCP Conservation Objectives, CVCC first determines the extent of existing disturbance within the development area. Existing disturbance is identified using United States Geological Survey digital orthophoto quarter quadrangles from 1996, the Plan's baseline year. Any existing disturbance is removed from the proposed development's footprint and does not count towards the total disturbance. The Project site contains a negligible amount of existing disturbance, accounting for 0.25 acres of the total Project footprint.

The Project site is primarily composed of Sonoran creosote bush scrub, desert dry wash woodland, and tamarisk scrub (Figure 3). Recent vegetation mapping has identified saltbush scrub and arrowweed scrub as also being present, and found that desert dry wash woodland is more extensive than originally modeled by the CVMSHCP (Sweet 2019). However, field observations from both Sweet (2019) and the biological resource survey conducted by GWF (Green 2022) indicate that wetland and riparian vegetation is transitioning to more traditional desert scrub, likely due to the combined effects of climate change, drought, and the sealing of the Coachella Canal. Lack of water has also driven some of the tamarisk scrub to convert to non-

vegetated habitat (Sweet 2019). Project impacts in this JPR are calculated using the original CVMSHCP natural community models and subsequent monitoring results are provided only as additional context. Of the natural communities present on site, only desert dry wash constitutes a Conservation Objective for the DPCA. The Project will not have any impacts on Natural Community Conservation Objectives (Table 1).

Species habitat present on the Project site includes Other Conserved Habitat for Coachella Valley round-tailed ground squirrel, Le Conte's thrasher, Orocopia sage, and Palm Springs pocket mouse. Of these, only Other Conserved Habitat for Le Conte's thrasher is a Conservation Objective for the DPCA (Figure 4). The Project will result in 38.25 acres of disturbance to this conservation element (Table 1).

Rough Step Analysis

The rough step analysis, as described in section 6.5 of the CVMSHCP, is used to determine whether a proposed disturbance would have an outsized negative impact on the availability of conservation land within a given Conservation Area for a specific Conservation Objective. It is meant to ensure that the potential conservation opportunities remain in "rough step" with the projected development. A positive rough step calculation indicates a surplus of allowable disturbance acreage for a particular Conservation Objective, while a negative rough step calculation signifies that the target habitat is being overdeveloped by the resulting acreage. In such an instance, future development would be outside the parameters of the Plan and conservation actions must take place prior to the authorization of additional habitat disturbance.

The Project's only impacts are to Other Conserved Habitat for Le Conte's thrasher. A rough step assessment, taking into account Project disturbance, results in 36 acres (Table 1), indicating that an additional 36 acres of disturbance to Le Conte's thrasher habitat can take place given the current levels of conservation towards this Conservation Objective.

Avoidance, Minimization, and Mitigation Measures

The Project as proposed will need to ensure the appropriate avoidance, minimization, and mitigation measures are implemented during the construction of the project. Based on the current disturbance footprint, particular attention should be paid to the required measures for Le Conte's thrasher, while mitigation measures for burrowing owl must also be implemented for all projects subject to the California Environmental Quality Act (CEQA). GWF has provided a draft Initial Study (IS), prepared pursuant to CEQA, for verification of the necessary mitigation measures. Within the context of the IS, mitigation measures being implemented to avoid the take of burrowing owl are described in IV-2, and involve two pre-construction surveys to identify occupied burrows and potential avoidance and minimization measures in the event a burrow is found occupied. These potential avoidance and minimization measures should be supplemented with the specific buffer requirements described in the CVMSHCP. CDFW has prepared guidelines for conducting burrowing owl surveys, available at their website².

² <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline>

The IS also provides mitigation measures for nesting birds under IV-3. Surveys will be conducted during nesting season (February 1 – August 31) and buffers around nests delineated, with distance varying on the type of bird nesting. This measure should be supplemented with the specific avoidance, minimization, and mitigation measures for Le Conte’s thrasher as described in the CVMSHCP, expanding the survey period to begin on January 15, delineating a 500-foot buffer around active nests, and prohibiting construction within active nests until any young present have fledged. Recommended survey protocols to detect Le Conte’s thrasher in the Colorado Desert have been established by CVCC and are available online at the CVMSCHP website³.

Avoidance, minimization, and mitigation measures are described in full in Appendix A to this report.

Land Use Adjacency Guidelines

Projects taking place within or immediately adjacent to Conservation Areas are required to implement land use adjacency guidelines (LUAG) to mitigate any indirect effects of development, including lighting, noise, the spread of invasives, and other potential edge effects. Land use adjacency guidelines are described in Appendix A to this report.

The draft IS does not reference the initial discharge of water to the DPCA, which could adversely impact existing water quality and habitat, and is therefore potentially inconsistent with LUAG 4.5.1 pertaining to drainage. The applicant is encouraged to consult with the Colorado River Basin Regional Water Quality Control Board (RWQCB) to determine if any specific testing needs to take place before discharging processed water to groundwater. Remaining LUAGs are either adequately addressed by the existing project design or will be incorporated into the design through the application of mitigation measures included in the draft IS.

Agency Comments

A draft version of this JPR was submitted to the Wildlife Agencies for comment on September 28, 2022. CDFW issued comments on October 28, 2022. Their comments pertained primarily to appropriate survey protocols, and have been incorporated into this document. Comments are included in full as Appendix B. USFWS did not submit any comments.

Conclusions

The consistency analysis performed in this JPR has found GWF’s proposed desalination plant project, inclusive of an initial pilot to be followed by a potential full buildout, conditionally consistent with the CVMSHCP. The pilot project can be considered fully consistent pending incorporation of the full avoidance, minimization, and mitigation measures for burrowing owl and Le Conte’s thrasher into the mitigation measures described in the IS. CVCC recommends GWF consult with the RWQCB to determine if the processed water will meet water quality standards for discharge to land.

³ https://cvmschp.org/pdf-files/BWG_Materials/CVMSHCP-2013-Le-Contes-Thrasher-Field-Protocol.pdf

This consistency analysis has determined that there is enough authorized take available for both the pilot project and the proposed buildout, and that the combined impact will not result in a negative rough step balance. However, in the event that GWF moves to full project buildout, CVCC recommends that the County of Riverside, alongside GWF, request an addendum to this JPR so that CVCC can review completed designs and workplans for consistency with the required avoidance, minimization, and mitigation measures and LUAGs. If subsequent review at any phase of the Project determines that the Project has failed to implement any of the above measures, or if the disturbance footprint has changed substantially from that reviewed here, this consistency finding shall be rendered null and void.

References

- Coachella Valley Association of Governments. 2016. Final Major Amendment to the Coachella Valley Multiple Species Habitat Conservation Plan. <https://cvmshcp.org/plan-documents/>. Accessed August-September 2022.
- Green, J. 2022. Global Water Farms Pilot Project Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Compliance Report. Wood Environment and Infrastructure Solutions, Inc. Riverside, CA
- Sweet, L., Barrows, C., Henitz, J., Merizan, R., Heacox, S., Davis, M., and Johnson, R. 2019. Dos Palmas Conservation Area 2013 & 2018 Vegetation Map Report. University of California Riverside Center for Conservation Biology. Riverside, CA.
- Terra Nova Planning and Research, Inc. Unpublished draft. Initial Study/Mitigated Negative Declaration.

Tables and Figures

Table 1: Project impacts to Conservation Objectives for Dos Palmas Conservation Area.

Conservation Element	Total Acres in Conservation Area	Authorized Disturbance (ac)	Proposed Disturbance (ac)	Disturbance to Date (ac)	Conservation Goal (ac)	Conservation to Date (ac)	Rough Step (ac)¹
<i>Desert pupfish, known occurrences²</i>	0	0	0	0	0	0	0
<i>Flat-tailed horned lizard, Other Conserved Habitat</i>	5,537	403	0	0	5,134	681	40.25
<i>Yuma clapper rail, Other Conserved Habitat</i>	682	42	0	0	641	0	4.25
<i>California black rail, Other Conserved Habitat</i>	597	37	0	0	560	281.50	3.75
<i>Crissal thrasher, Core Habitat</i>	536	38	0	0	498	0	3.75
<i>Le Conte's thrasher, Other Conserved Habitat</i>	14,882	743	38.25	0	14,139	2,493.25	36
<i>Mesquite hummocks</i>	55	3	0	0	52	10.50	0.25
<i>Desert sink scrub</i>	7,195	487	0	0	6,708	1,226	48.75
<i>Cismontane alkali marsh</i>	321	23	0	0	321	200	2.25
<i>Arrowweed scrub</i>	277	13	0	0	277	0.25	1.25
<i>Desert fan palm oasis woodland</i>	125	6	0	0	119	29.50	0.5
<i>Mesquite bosque</i>	482	36	0	0	446	234.75	3.5
<i>Desert dry wash woodland</i>	1,856	83	0	0	1,773	255.50	8.25

¹Rough step calculation includes proposed disturbance and is rounded to the nearest quarter-acre.

²Outside of refugia, pupfish habitat consists of less than a quarter-acre.

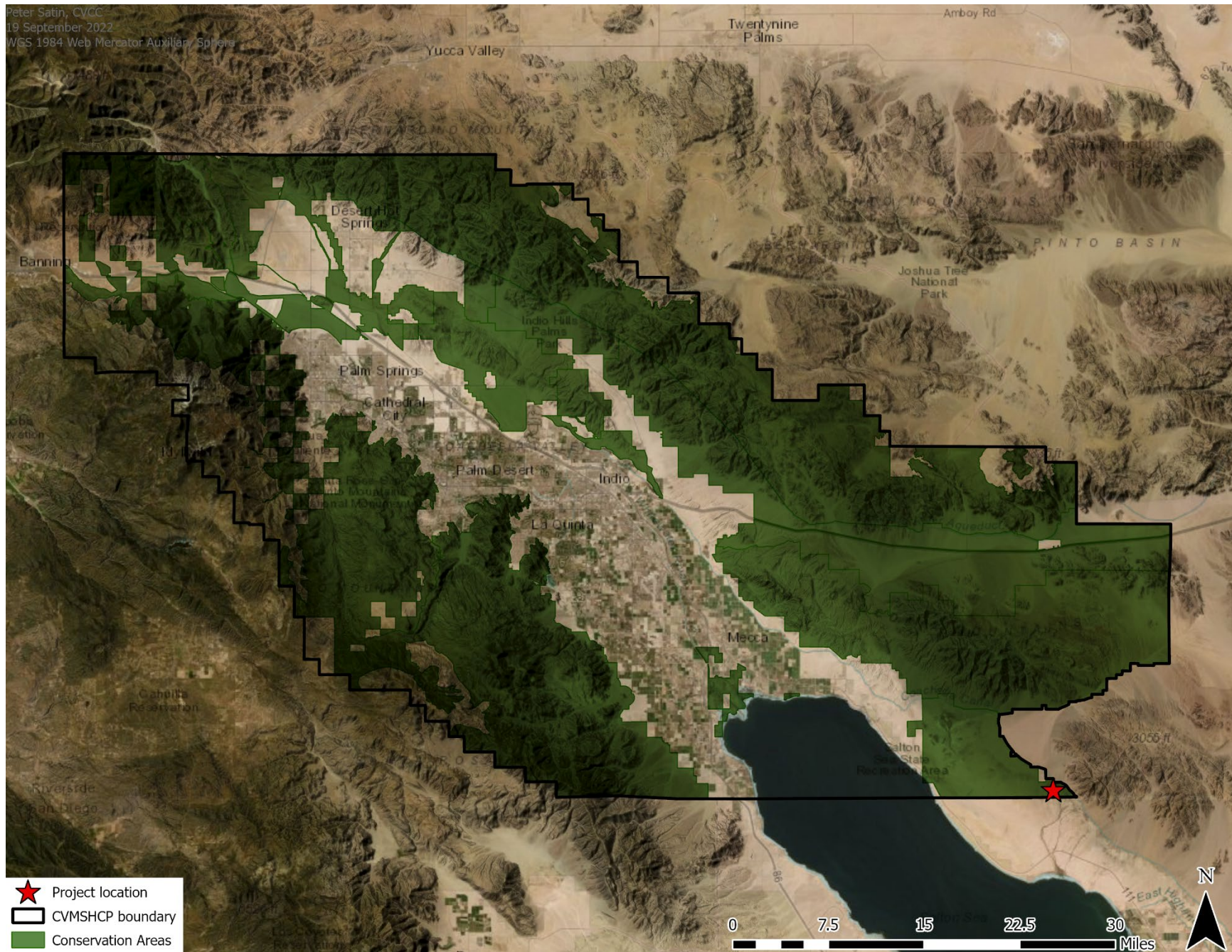


Figure 1: Project location within the Coachella Valley Multiple Species Habitat Conservation Plan boundary.

Peter Sabin, CVCC
19 September 2022
NAD 83, 1984 Web Mercator Auxiliary Sphere

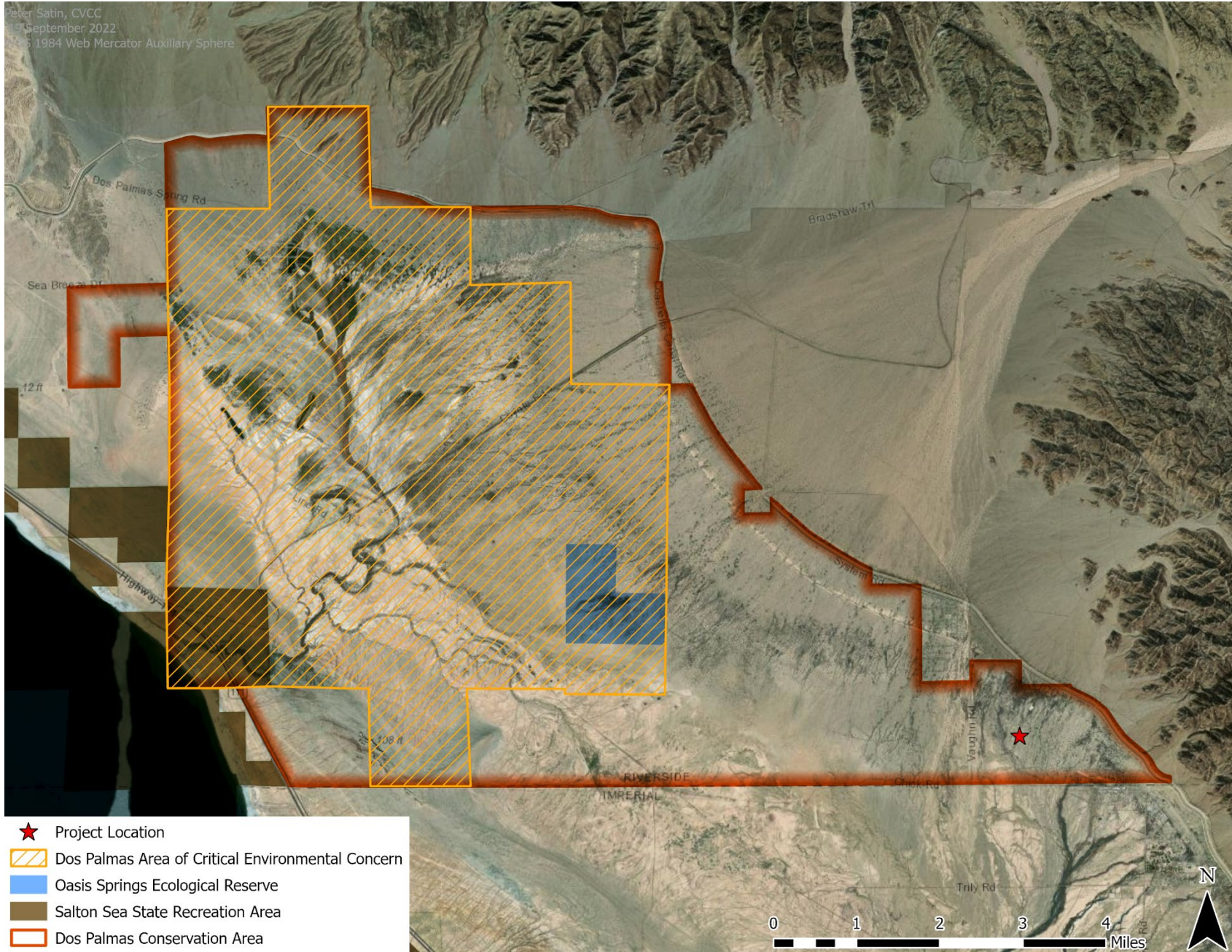


Figure 2: Dos Palmas Conservation Area land status.

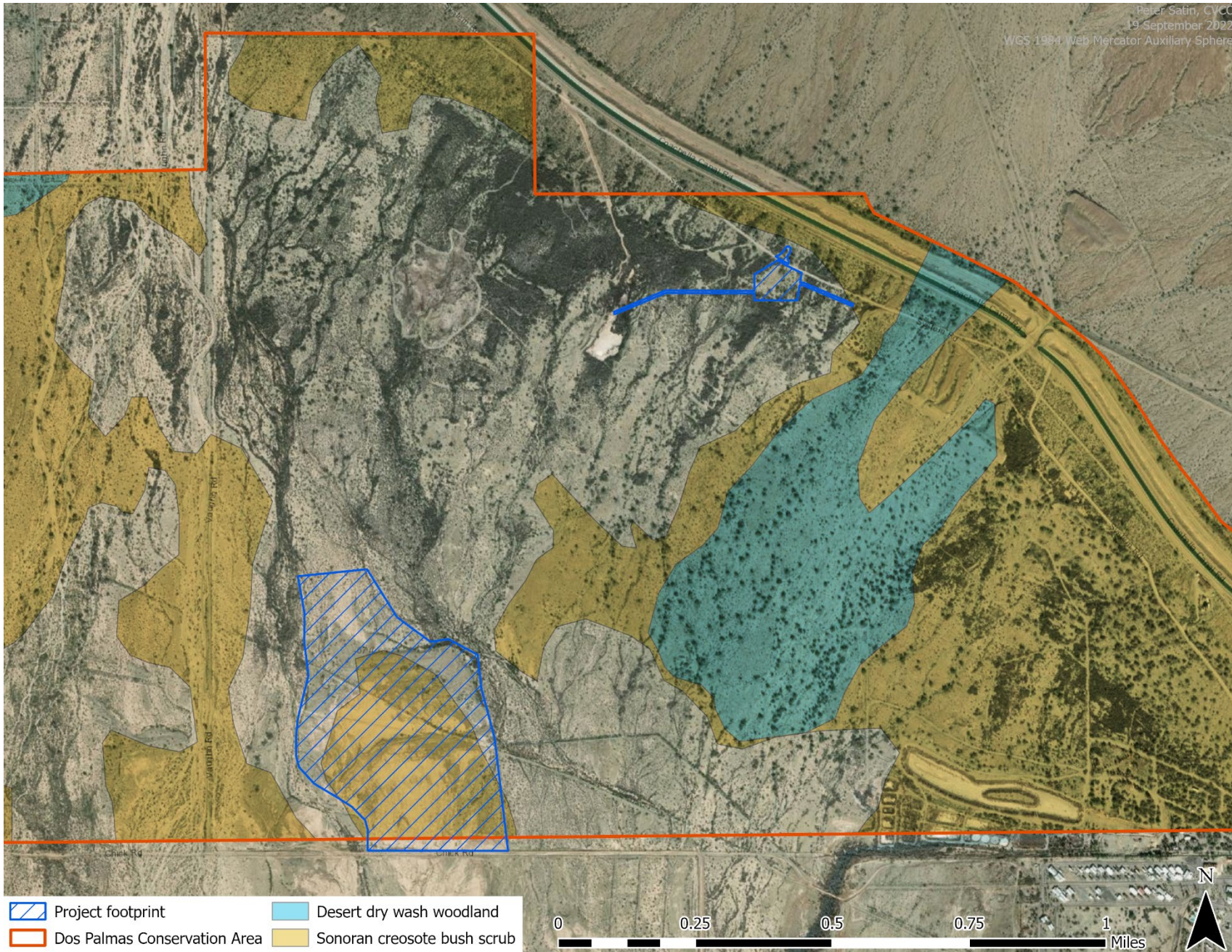


Figure 3: Natural Communities in the Project vicinity. Undesignated land cover is identified as tamarisk scrub.

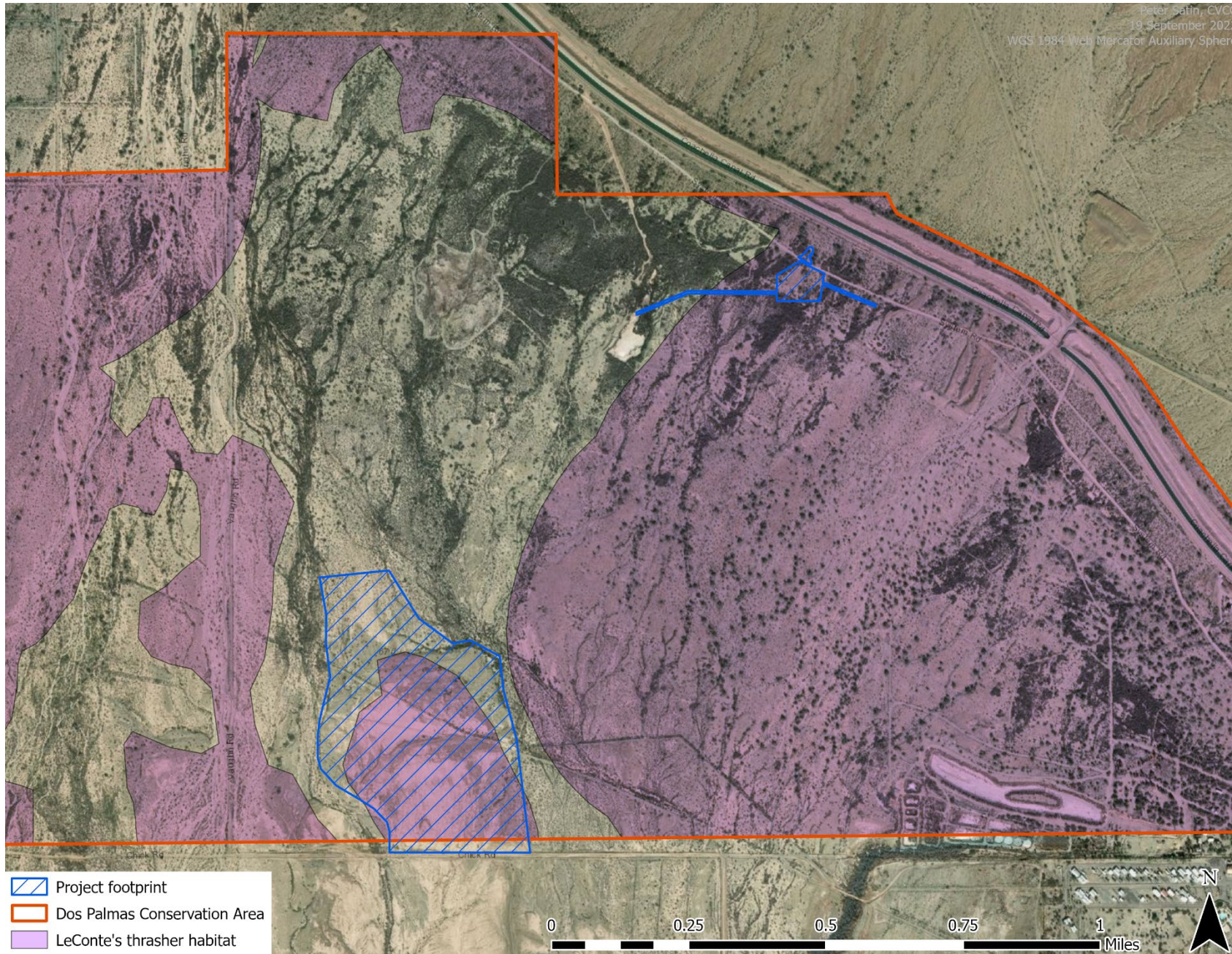


Figure 4: Other Conserved Habitat for Le Conte's thrasher in the Project vicinity.

Appendix C: Avoidance, minimization and mitigation measures and land use adjacency guidelines

4.4 Avoidance, Minimization, and Mitigation Measures

Biological Corridors. Specific roads in Conservation Areas, where culverts or undercrossings are required to maintain Biological Corridors, are delineated in the Section 4.3 subsections on individual Conservation Areas.

Burrowing Owl. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot, or to O&M of Covered Activities other than levees, berms, dikes, and similar features that are known to contain burrowing owl burrows. O&M of roads is not subject to this requirement. For other projects that are subject to CEQA, the Permittees will require burrowing owl surveys in the Conservation Areas using an accepted protocol (as determined by the CVCC in coordination with the Permittees and the Wildlife Agencies). Prior to Development, the construction area and adjacent areas within 500 feet of the Development site, or to the edge of the property if less than 500 feet, will be surveyed by an Acceptable Biologist for burrows that could be used by burrowing owl. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the property boundary if less than 500 feet, will be established around the burrow. The buffer will be staked and flagged. No Development or O&M activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the Covered Activity may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted Wildlife Agency protocols. A burrow is assumed occupied if records indicate that, based on surveys conducted following protocol, at least one burrowing owl has been observed occupying a burrow on site during the past three years. If there are no records for the site, surveys must be conducted to determine, prior to construction, if burrowing owls are present. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the Wildlife Agencies. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the Wildlife Agencies.

Within one (1) year of Permit issuance, CVCC will cooperate with County Flood Control, CVWD and IID to conduct an inventory of levees, berms, dikes, and similar features in the Plan Area maintained by those Permittees. Burrowing owl burrow locations will be mapped and each of these Permittees will incorporate the information into its O&M practices to avoid impacts to the burrowing owl to the maximum extent Feasible. CVCC in cooperation with County Flood Control, CVWD, and IID will prepare a manual for maintenance staff, educating them about the burrowing owl and appropriate actions to take when owls are encountered to avoid impacts to the maximum extent Feasible. The manual will be submitted to the Wildlife Agencies for review and comment within two (2) years of Permit issuance. In conjunction with the Monitoring Program, the maps of the burrowing owl locations along the above-described levees, berms, dikes, and similar features will be periodically updated.

Covered Riparian Bird Species. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot. Riparian Habitat here refers to the following natural communities: southern arroyo willow riparian forest, Sonoran cottonwood-willow riparian forest, desert fan palm oasis woodland, and southern sycamore-alder riparian woodland in the Cabazon, Stubbe and Cottonwood Canyons, Whitewater Canyon, Upper Mission Creek/Big Morongo Canyon, Thousand Palms, Indio Hills Palms, Joshua Tree National Park, Mecca Hills and Orocopia Mountains, Dos Palmas, Coachella Valley Stormwater Channel and Delta, and Santa Rosa and San Jacinto Mountains Conservation Areas. Covered Activities, including O&M of facilities and construction of permitted new projects, in riparian Habitat will be conducted to the maximum extent Feasible outside of the March 15 – September 15 nesting season for least Bell’s vireo, and the May 1 – September 15 nesting season for southwestern willow flycatcher, summer tanager, yellow warbler, and yellow-breasted chat. If Covered Activities must occur during the nesting season, surveys shall be conducted to determine if any active nests are present. If active nests are identified, the Covered Activity shall not be conducted within 200 feet of an active nest. If surveys conducted during the nesting season document that Covered nesting riparian bird Species are not present, the Covered Activity may proceed.

Crissal Thrasher. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot, or to O&M of Covered Activities. In modeled crissal thrasher Habitat in the Willow Hole, Thousand Palms, Indio Hills Palms, East Indio Hills, Dos Palmas, and Coachella Valley Stormwater Channel and Delta Conservation Areas, surveys will be conducted by an Acceptable Biologist prior to the start of construction activities during the nesting season, January 15 – June 15, to determine if active nest sites for this species occur on the construction site and/or within 500 feet of the construction site, or to the edge of the property boundary if less than 500 feet. If nesting crissal thrashers are found, a 500-foot buffer, or a buffer to the edge of the property boundary if less than 500 feet, will be established around the nest site. The buffer will be staked and flagged. No construction activities will be permitted within the buffer during the breeding season of January 15 – June 15 or until the young have fledged.

Desert tortoise. This measure does not apply to single-family residences and any non-commercial accessory uses and structures, including but not limited to second units on an existing legal lot, or to O&M of Covered Activities for Permittee infrastructure facilities. Within Conservation Areas, the Permittees will require surveys for desert tortoise for Development in modeled desert tortoise Habitat. Prior to Development, an Acceptable Biologist will conduct a presence/absence survey of the Development area and adjacent areas within 200 feet of the Development area, or to the property boundary if less than 200 feet and permission from the adjacent landowner cannot be obtained, for fresh sign of desert tortoise, including live tortoises, tortoise remains, burrows, tracks, scat, or egg shells. The presence/absence survey must be conducted during the window between February 15 and October 31. Presence/absence surveys require 100% coverage of the survey area. If no sign is found, a clearance survey is not required. A presence/absence survey is valid for 90 days or indefinitely if tortoise-proof fencing is installed around the Development site. If fresh sign is located, the Development area must be fenced with tortoise-proof fencing and a clearance survey conducted during the clearance window. Desert tortoise clearance surveys shall be conducted during the clearance window from February 15 to June 15 and September 1 to October 31 or in accordance with the most recent Wildlife Agency protocols. Clearance surveys must cover 100% of the Development area. A clearance survey must be conducted during different tortoise activity periods (morning and afternoon). All tortoises encountered will be moved from the Development site to a specified location. Prior to issuance of the Permits, CVCC will either use the *Permit Statement Pertaining to High Temperatures for Handling Desert Tortoises*

and *Guidelines for Handling Desert Tortoises During Construction Projects*, revised July 1999, or develop a similar protocol for relocation and monitoring of desert tortoise, to be reviewed and approved by the Wildlife Agencies. Thereafter, the protocol will be revised as needed based on the results of monitoring and other information that becomes available.

Inactive Season Protocol. This protocol is applicable to pre-construction and construction phases of utility Covered Activity projects occurring between November 1 and February 14. These protocols apply only to the site preparation and construction phases of projects. The project proponent must follow the eight pre-construction protocol requirements listed below.

1. A person from the entity contracting the construction shall act as the contact person with the representative of the appropriate RMUC. He/she will be responsible for overseeing compliance with the protective stipulations as stated in this protocol.
2. Prior to any construction activity within the Conservation Areas, the contact person will meet with the representative of the appropriate RMUC to review the plans for the project. The representative of the appropriate RMUC will review alignment, pole spacing, clearing limits, burrow locations, and other specific project plans which have the potential to affect the desert tortoise. He or she may recommend modifications to the contact person to further avoid or minimize potential impacts to desert tortoise.
3. The construction area shall be clearly fenced, marked, or flagged at the outer boundaries to define the limits of construction activities. The construction right of- way shall normally not exceed 50 feet in width for standard pipeline corridors, access roads and transmission corridors, and shall be minimized to the maximum extent Feasible. Existing access roads shall be used when available, and rights-of way for new and existing access roads shall not exceed 20 feet in width unless topographic obstacles require greater road width. Other construction areas including well sites, storage tank sites, substation sites, turnarounds, and laydown/staging sites which require larger areas will be determined in the preconstruction phase. All construction workers shall be instructed that their activities shall be confined to locations within the fenced, flagged, or marked areas.
4. An Acceptable Biologist shall conduct pre-construction clearance surveys of all areas potentially disturbed by the proposed project. Any winter burrows discovered in the Conservation Areas during the pre-construction survey shall be avoided or mitigated. The survey shall be submitted to the representative of the appropriate RMUC as part of plan review.
5. All site mitigation criteria shall be determined in the pre-construction phase, including but not limited to seeding, barrier fences, leveling, and laydown/staging areas, and will be reviewed by the representative of the appropriate RMUC prior to implementation.
6. A worker education program shall be implemented prior to the onset of each construction project. All construction employees shall be required to read an educational brochure prepared by the representative of the appropriate RMUC and/or the RMOC and attends a tortoise education class prior to the onset of construction or site entry. The class will describe the sensitive species which may be found in the area, the purpose of the MSHCP Reserve System, and the appropriate measures to take upon discovery of a sensitive species. It will also cover construction techniques to minimize potential adverse impacts.
7. All pre-construction activities which could Take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the supervision of an Acceptable Biologist.
8. If there are unresolvable conflicts between the representative of the appropriate RMUC and the contact person, then the matter will be arbitrated by the RMOC and, if necessary, by CVCC.

The following terms are established to protect the desert tortoise during utility related construction activities in the Conservation Areas and are to be conducted by an Acceptable Biologist.

- An Acceptable Biologist shall oversee construction activities to ensure compliance with the protective stipulations for the desert tortoise.
- Desert tortoises found above ground inside the project area during construction shall be moved by an Acceptable Biologist out of harm's way and placed in a winter den (at a distance no greater than 250 feet). If a winter den cannot be located, the USFWS or CDFG shall determine appropriate action with respect to the tortoise. Tortoises found above ground shall be turned over to the Acceptable Biologist
- No handling of tortoises will occur when the air temperature at 15 centimeters above ground exceeds 90 degrees Fahrenheit.
- Desert tortoise burrows shall be avoided to the maximum extent Feasible. An Acceptable Biologist shall excavate any burrows which cannot be avoided and will be disturbed by construction. Burrow excavation shall be conducted with the use of hand tools only, unless the Acceptable Biologist determines that the burrow is unoccupied immediately prior to burrow destruction.
- Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist.
- For electrical transmission line and road construction projects, only burrows within the right-of-way shall be excavated. Burrows outside the right-of-way, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the right-of-way. Installation and removal of such barrier fencing shall be under the direction and supervision of an Acceptable Biologist.
- Tortoises in the Conservation Areas are not to be removed from burrows until appropriate action is determined by USFWS or CDFG with respect to the tortoise. The response shall be carried out within 72 hours.
- Blasting is not permissible within 100 feet of an occupied tortoise burrow.

During construction, contractors will comply with the mitigation and minimization measures contained within this protocol. These measures are:

- All trenches, pits, or other excavations shall be inspected for tortoises by an Acceptable Biologist prior to filling.
- All pipes and culverts stored within desert tortoise Habitat shall have both ends capped to prevent entry by desert tortoises. During construction, all open ended pipeline segments that are welded in place shall be capped during periods of construction inactivity to prevent entry by desert tortoises.
- Topsoil removed during trenching shall be re-spread on the pipeline construction area following compaction of the backfill. The area shall be restored as determined during the environmental review.
- All test pump water will be routed to the nearest wash or natural drainage. The route will be surveyed by an Acceptable Biologist. If tortoises are found in the drainage area the Acceptable Biologist will remove the tortoises.
- Powerlines associated with water development, such as to provide power for pumps, should be buried underground adjacent to the pipe. All above ground structures deemed to be necessary shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds, and shall adhere to the electrical distribution protocol which follows.

- In order to perform routine O&M of the water systems such as wells, pumps, water lines and storage tanks, etc., employees are to be trained in the area of desert tortoise education. This training will be performed on a regular basis by an Acceptable Biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the reserve.
- All disturbance areas around poles or concrete pads will be reduced to a size just large enough for the construction activity.
- Areas disturbed around poles or construction pads will be restored as determined during the pre-construction process.
- Poles or other above ground structures necessary for electrical distribution development shall be minimized as much as possible. All above ground structures shall be equipped with functional anti-perching devices that would prevent their use by ravens and other predatory birds.
- In order to perform routine O&M of the electrical distribution systems such as transmission lines and poles, substations, etc., employees are to be trained in the area of desert tortoise education. This training will be performed on a regular basis by a qualified biologist for those personnel not previously trained. The training will include at a minimum the following: identification of tortoises, burrows, and other sign; and instructions on installing tortoise barrier fencing. During the course of basic O&M, desert tortoise will be avoided. Untrained employees shall not perform maintenance operations within the non-Take areas.
- All trash and food items shall be promptly contained and removed daily from the project site to reduce the attractiveness of the area to common ravens and other desert tortoise predators.
- Construction activities which occur between dusk and dawn shall be limited to areas which have already been cleared of desert tortoises by the Acceptable Biologist and graded or located in a fenced right-of-way. Construction activities shall not be permitted between dusk and dawn in areas not previously graded. **Active Season Protocol.** This protocol is applicable to pre-construction and construction phases of utility development projects occurring between February 15 and November 1. It is identical to the Inactive Season Protocol with the following additions:
 - Work areas shall be inspected for desert tortoises within 24 hours of the onset of construction. To facilitate implementation of this condition, burrow inspection and excavation may begin no more than seven (7) days in advance of construction activities, as long as a final check for desert tortoises is conducted at the time of construction.
 - All pre-construction activities which could Take tortoises in any manner (e.g., driving off an established road, clearing vegetation, etc.) shall occur under the overall supervision of an Acceptable Biologist. Any hazards to tortoises created by this activity, such as drill holes, open trenches, pits, other excavations, or any steep-sided depressions, shall be checked three times a day for desert tortoises. These hazards shall be eliminated each day prior to the work crew leaving the site, which may include installing a barrier that will preclude entry by tortoises. Open trenches, pits or other excavations will be backfilled within 72 hours, whenever possible. A 3:1 slope shall be left at the end of every open trench to allow trapped desert tortoises to escape. Trenches not backfilled within 72 hours shall have a barrier installed around them to preclude entry by desert tortoises. All trenches, pits, or other excavations shall be inspected for tortoises by a biological monitor trained and approved by the Acceptable Biologist prior to filling.

- If a desert tortoise is found, the biological monitor shall notify the Acceptable Biologist who will remove the animal as soon as possible.
- Only burrows within the limits of clearing and surface disturbance shall be excavated. Burrows outside these limits, but at risk from accidental crushing, shall be protected by the placement of deterrent barrier fencing between the burrow and the construction area. The barrier fence shall be at least 20 feet long and shall be installed to direct the tortoise leaving the burrow away from the construction area. Installation and removal of such barrier fencing shall be under the direction and supervision of the biological monitor.
- If blasting is necessary for construction, all tortoises shall be removed from burrows within 100 feet of the blast area.

Disposition of Sick, Injured, or Dead Specimens. Upon locating dead, injured, or sick desert tortoises under any utility or road project, initial notification by the contact representative or Acceptable Biologist must be made to the USFWS or CDFG within three (3) working days of its finding. Written notification must be made within five (5) calendar days with the following information: date; time; location of the carcass; photograph of the carcass; and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care. Injured animals shall be taken care of by the Acceptable Biologist or an appropriately trained veterinarian. Should any treated tortoises survive, USFWS or CDFG should be contacted regarding the final disposition of the animals.

Fluvial Sand Transport. Activities, including O&M of facilities and construction of permitted new projects, in fluvial sand transport areas in the Cabazon, Stubbe and Cottonwood Canyons, Snow Creek/Windy Point, Whitewater Canyon, Whitewater Floodplain, Upper Mission Creek/Big Morongo Canyon, Mission Creek/Morongu Wash, Willow Hole, Long Canyon, Edom Hill, Thousand Palms, West Deception Canyon, and Indio Hills/Joshua Tree National Park Linkage Conservation Areas will be conducted in a manner to maintain the fluvial sand transport capacity of the system.

Le Conte's Thrasher. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot, or to O&M of Covered Activities. In modeled Le Conte's thrasher Habitat in all the Conservation Areas, during the nesting season, January 15 - June 15, prior to the start of construction activities, surveys will be conducted by an Acceptable Biologist on the construction site and within 500 feet of the construction site, or to the property boundary if less than 500 feet. If nesting Le Conte's thrashers are found, a 500 foot buffer, or to the property boundary if less than 500 feet, will be established around the nest site. The buffer will be staked and flagged. No construction will be permitted within the buffer during the breeding season of January 15 - June 15 or until the young have fledged.

Little San Bernardino Mountains Linanthus. This measure does not apply to single-family residences and any non-commercial accessory uses and structures, including but not limited to second units on an existing legal lot, or to O&M of Covered Activities. To avoid and minimize impacts to this species as much as possible, the following avoidance and minimization effort shall occur:

- **Salvage:** Salvage of top soil and/or seeds should occur prior to ground disturbance in accordance with Section 6.6.1. Salvage should be conducted by or in cooperation with the CVCC.

Mesquite Hummocks and Mesquite Bosque Natural Communities. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot, or to O&M of Covered Activities. Construction activities in the Cabazon, Willow Hole, Thousand Palms, Indio Hills Palms, East Indio Hills, Dos Palmas, Coachella Valley Stormwater Channel and Delta, and Santa Rosa and San Jacinto Mountains Conservation Areas will avoid mesquite hummocks and mesquite bosque to the maximum extent Feasible.

Palm Springs Pocket Mouse. To avoid impacts to the Palm Springs pocket mouse and its habitat in the Upper Mission Creek/Big Morongo Canyon and Willow Hole Conservation Areas, Flood Control-related construction activities will comply with the following avoidance and minimization measures.

- **Clearing:** For construction that would involve disturbance to Palm Springs pocket mouse habitat, activity should be phased to the extent feasible and practicable so that suitable habitat islands are no farther than 300 feet apart at any given time to allow pocket mice to disperse between habitat patches across nonsuitable habitat (i.e., unvegetated and/or compacted soils). Prior to project construction, a biological monitor familiar with this species should assist construction crews in planning access routes to avoid impacts to occupied habitat as much as feasible (i.e., placement of preferred routes on project plans and incorporation of methods to avoid as much suitable habitat/soil disturbance as possible). Furthermore, during construction activities, the biological monitor will ensure that connected, naturally vegetated areas with sandy soils and typical native vegetation remain intact to the extent feasible and practicable. Finally, construction that involves clearing of habitat should be avoided during the peak breeding season (approximately March to May), and activity should be limited as much as possible during the rest of the breeding season (January to February and June to August).
- **Revegetation:** Clearing of native vegetation (e.g., creosote, rabbitbrush, burrobush, cheesebush) should be followed by revegetation, including natural reestablishment and other means, resulting in habitat types of equal or superior biological value for Palm Springs pocket mouse.
- **Trapping/Holding:** All trapping activity should be conducted in accordance with accepted protocols and by a qualified biologist who possesses a Memorandum of Understanding with CDFG for live-trapping of heteromyid species in Southern California.
- **Translocation:** Should translocation between distinct population groups be necessary, as determined through the Adaptive Management and Monitoring Program, activity should be conducted by a qualified biologist who possesses a Memorandum of Understanding with CDFG for live-trapping of heteromyid species in Southern California. Trapping and subsequent translocation activity should be conducted in accordance with accepted protocols. Translocation programs should be coordinated by or conducted by the CVCC and/or RMOC to determine the appropriate trapping, holding, marking, and handling methods and potential translocation sites.

Peninsular Bighorn Sheep Habitat. Completion of Covered Activities in Peninsular bighorn sheep Habitat in the Cabazon, Snow Creek/Windy Point, and Santa Rosa and San Jacinto Mountains Conservation Areas will be conducted outside of the January 1 - June 30 lambing season unless otherwise authorized through a Minor Amendment to the Plan with concurrence from the Wildlife Agencies. O&M of Covered Activities, including but not limited to refinishing the inside of water storage tanks, shall be scheduled to avoid the lambing season, but may extend into the January 1 – June 30 period if necessary to complete the activity, upon concurrence with the Wildlife Agencies.

For new projects in the above listed Conservation Areas, no toxic or invasive plant species may be used for landscaping. For existing public infrastructure facilities which have landscaping in Peninsular bighorn sheep Habitat in the Cabazon, Snow Creek/Windy Point, and Santa Rosa and San Jacinto Mountains Conservation Areas, the Permittees who have such facilities will, with respect to those facilities, develop and implement a plan and schedule to remove or prevent access to oleander and any other plants known to be toxic to Peninsular bighorn sheep. The plan and schedule will be prepared within one (1) year of Permit issuance.

Triple-ribbed milkvetch. This measure does not apply to single-family residences and any non-commercial accessory uses and structures including but not limited to second units on an existing legal lot, or to O&M of Covered Activities. It is understood that O&M for infrastructure developed as part of a private development approved in compliance with the MSHCP that is later transferred to a public entity is included as a Covered Activity. For Covered Activities within modeled triple-ribbed milkvetch Habitat in the Whitewater Canyon, Whitewater Floodplain, Upper Mission Creek/Big Morongo Canyon, and Santa Rosa and San Jacinto Mountains Conservation Areas, surveys by an Acceptable Biologist will be required for activities during the growing and flowering period from February 1 - May 15. Any occurrences of the species will be flagged and public infrastructure projects shall avoid impacts to the plants to the maximum extent Feasible. In particular, known occurrences on a map maintained by CVCC shall not be disturbed.

4.5 Land Use Adjacency Guidelines

The purpose of Land Use Adjacency Guidelines is to avoid or minimize indirect effects from Development adjacent to or within the Conservation Areas. Adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats. Edge effects will also be addressed through reserve management activities such as fencing. The following Land Use Adjacency Guidelines shall be considered by the Permittees in their review of individual public and private Development projects adjacent to or within the Conservation Areas to minimize edge effects, and shall be implemented where applicable.

4.5.1 Drainage

Proposed Development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.

4.5.2 Toxics

Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area.

4.5. Lighting

For proposed Development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area. Projects requiring discretionary approval shall provide the permitting jurisdiction with a light study showing the proposed methods to minimize escape of light from the project into Conservation Areas. This study shall include all exterior lighting including street lights and security lighting.

4.5.4 Noise

Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA L_{eq} hourly, as measured at the property line, shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area. Required Measures in any Conservation Area that preclude or limit berms or walls shall have precedence over this guideline. This guideline is intended to apply to land uses that generate noise on a permanent basis such as race tracks, night clubs and shooting ranges and does not apply to temporary noise due to construction or special events. Public safety activities are exempt from this guideline.

4.5.5 Invasives

Invasive species are a known threat to native wildlife and wildlife habitat in the Coachella Valley. Impacts of invasive species on wildlife in the Coachella Valley have been documented in research conducted by the Center for Conservation Biology at the University of California, Riverside. Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent Feasible; recommended native species are listed in Table 4-112. The plants listed in Table 4-113 shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agencies' concurrence.

4.5.6 Barriers

Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage.

4.5.7 Grading/Land Development

Manufactured slopes associated with site Development shall not extend into adjacent land in a Conservation Area.

Table 4-112: Coachella Valley Native Plants Recommended for Landscaping¹

BOTANICAL NAME	COMMON NAME
Trees	
<i>Washingtonia filifera</i>	California Fan Palm
<i>Cercidium floridum</i>	Blue Palo Verde
<i>Chilopsis linearis</i>	Desert Willow
<i>Olneya tesota</i>	Ironwood Tree
<i>Prosopis glandulosa var. torreyana</i>	Honey Mesquite
Shrubs	
<i>Acacia greggii</i>	Cat's Claw Acacia
<i>Ambrosia dumosa</i>	Burro Bush
<i>Atriplex canescens</i>	Four Wing Saltbush
<i>Atriplex lentiformis</i>	Quailbush
<i>Atriplex polycarpa</i>	Cattle Spinach
<i>Baccharis sergiloides</i>	Squaw Water-weed
<i>Bebia juncea</i>	Sweet Bush
<i>Cassia (Senna) covesii</i>	Desert Senna
<i>Condalia parryi</i>	Crucilllo
<i>Crossosoma bigelovii</i>	Crossosoma
<i>Dalea emoryi</i>	Dye Weed
<i>Dalea (Psorothamnus) schottii</i>	Indigo Bush
<i>Datura meteloides</i>	Jimson Weed
<i>Encelia farinosa</i>	Brittle Bush
<i>Ephedra aspera</i>	Mormon Tea
<i>Eriogonum fasciculatum</i>	California Buckwheat
<i>Eriogonum wrightii membranaceum</i>	Wright's Buckwheat
<i>Fagonia laevis</i>	(No Common Name)
<i>Gutierrezia sarothrae</i>	Matchweed
<i>Haplopappus acradenius</i>	Goldenbush
<i>Hibiscus denudatus</i>	Desert Hibiscus
<i>Hoffmannseggia microphylla</i>	Rush Pea
<i>Hymenoclea salsola</i>	Cheesebush
<i>Hyptis emoryi</i>	Desert Lavender
<i>Isomeris arborea</i>	Bladder Pod
<i>Juniperus californica</i>	California Juniper
<i>Krameria grayi</i>	Ratany
<i>Krameria parvifolia</i>	Little-leaved Ratany
<i>Larrea tridentate</i>	Creosote Bush
<i>Lotus rigidus</i>	Desert Rock Pea
<i>Lycium andersonii</i>	Box Thorn
<i>Petalonyx linearis</i>	Long-leaved Sandpaper Plant
<i>Petalonyx thurberi</i>	Sandpaper Plant
<i>Peucephyllum schottii</i>	Pygmy Cedar
<i>Prunus fremontii</i>	Desert Apricot
<i>Rhus ovata</i>	Sugar-bush
<i>Salazaria mexicana</i>	Paper-bag Bush
<i>Salvia apiana</i>	White Sage
<i>Salvia eremostachya</i>	Santa Rosa Sage
<i>Salvia vaseyi</i>	Wand Sage
<i>Simmondsia chinensis</i>	Jojoba

BOTANICAL NAME	COMMON NAME
<i>Sphaeralcea ambigua</i>	Globemallow (Desert Mallow)
<i>Sphaeralcea ambigua rosacea</i>	Apricot Mallow
<i>Trixis californica</i>	Trixis
<i>Zauschneria californica</i>	California Fuchsia
Groundcovers	
<i>Mirabilis bigelovii</i>	Wishbone Bush (Four O'Clock)
<i>Mirabilis tenuiloba</i>	White Four O'Clock (Thin-lobed)
Vines	
<i>Vitis girdiana</i>	Desert Grape
Accent	
<i>Muhlenbergia rigens</i>	Deer Grass
Herbaceous Perennials²	
<i>Adiantum capillus-veneris</i>	Maiden-hair Fern (w)
<i>Carex alma</i>	Sedge (w)
<i>Dalea parryi</i>	Parry Dalea
<i>Eleocharis montevidensis</i>	Spike Rush (w)
<i>Equisetum laevigatum</i>	Horsetail (w)
<i>Juncus bufonis</i>	Toad Rush (w)
<i>Juncus effuses</i>	Juncus (w)
<i>Juncus macrophyllus</i>	Juncus (w)
<i>Juncus mexicanus</i>	Mexican Rush (w)
<i>Juncus xiphioides</i>	Juncus (w)
<i>Notholaena parryi</i>	Parry Cloak Fern
<i>Pallaea mucronata</i>	Bird-foot Fern
Cacti and Succulents	
<i>Agave deserti</i>	Desert Agave
<i>Asclepias albicans</i>	Desert Milkweed (Buggy-whip)
<i>Asclepias subulata</i>	Ajamete
<i>Dudleya arizonica</i>	Live-forever
<i>Dudleya saxosa</i>	Rock Dudleya
<i>Echinocereus engelmannii</i>	Calico Hedgehog Cactus
<i>Ferocactus acanthodes</i>	Barrel Cactus
<i>Fouquieria splendens</i>	Ocotillo
<i>Mamillaria dioica</i>	Nipple Cactus
<i>Mamillaria tetrancistra</i>	Corkseed Cactus
<i>Nolina parryi</i>	Parry Nolina
<i>Opuntia acanthocarpa</i>	Stag-horn or Deer-horn Cholla
<i>Opuntia bigelovii</i>	Teddy Bear or Jumping Cholla
<i>Opuntia basilaris</i>	Beavertail Cactus
<i>Opuntia echinocarpa</i>	Silver or Golden Cholla
<i>Opuntia ramosissima</i>	Pencil Cholla, Darning Needle Cholla
<i>Yucca schidigera</i>	Mojave Yucca, Spanish Dagger
<i>Yucca whipplei</i>	Our Lord's Candle

¹ Source: "Coachella Valley Native Plants, Excluding Annuals (0 ft. to approximately 3,000 ft. elevation)." Compiled by Dave Heveron, Garden Collections Manager, and Kirk Anderson, Horticulturist, The Living Desert, May, 2000, for the Coachella Valley Mountains Conservancy.

² Common names for herbaceous perennials that are followed by "(w)" indicate a water or riparian species.

Table 4-113: Prohibited Invasive Ornamental Plants¹

BOTANICAL NAME	COMMON NAME
<i>Acacia</i> spp. (all species except <i>A. greggii</i>)	Acacia (all species except native catclaw acacia)
<i>Arundo donax</i> (✓)	Giant Reed or Arundo Grass
<i>Atriplex semibaccata</i> (✓)	Australian Saltbush
<i>Avena barbata</i>	Slender Wild Oat
<i>Avena fatua</i>	Wild Oat
<i>Brassica tournefortii</i> (✓✓)	African or Saharan Mustard
<i>Bromus madritensis</i> ssp. <i>rubens</i> (✓)	Red Brome
<i>Bromus tectorum</i> (✓✓)	Cheat Grass or Downy Brome
<i>Cortaderia jubata</i> [syn. <i>C. atacamensis</i>]	Jubata Grass or Andean Pampas Grass
<i>Cortaderia dioica</i> [syn. <i>C. selloana</i>]	Pampas Grass
<i>Descurainia sophia</i>	Tansy Mustard
<i>Eichhornia crassipes</i>	Water Hyacinth
<i>Elaeagnus angustifolia</i>	Russian Olive
<i>Foeniculum vulgare</i>	Sweet Fennel
<i>Hirschfeldia incana</i>	Mediterranean or Short-pod Mustard
<i>Lepidium latifolium</i>	Perennial Pepperweed
<i>Lolium multiflorum</i>	Italian Ryegrass
<i>Nerium oleander</i>	Oleander
<i>Nicotiana glauca</i> (✓)	Tree Tobacco
<i>Oenothera berlandieri</i> (#)	Mexican Evening Primrose
<i>Olea europea</i>	European Olive Tree
<i>Parkinsonia aculeata</i> (✓)	Mexican Palo Verde
<i>Pennisetum clandestinum</i>	Kikuyu Grass
<i>Pennisetum setaceum</i> (✓✓)	Fountain Grass
<i>Phoenix canariensis</i> (#)	Canary Island Date Palm
<i>Phoenix dactylifera</i> (#)	Date Palm
<i>Ricinus communis</i> (✓)	Castorbean
<i>Salsola tragus</i> (✓)	Russian Thistle
<i>Schinus molle</i>	Peruvian Pepper Tree or California Pepper
<i>Schinus terebinthifolius</i>	Brazilian Pepper Tree
<i>Schismus arabicus</i>	Mediterranean Grass
<i>Schismus barbatus</i> (✓✓)	Saharan Grass, Abu Mashī
<i>Stipa capensis</i> (✓✓)	No Common Name
<i>Tamarix</i> spp. (all species) (✓✓)	Tamarisk or Salt Cedar
<i>Taeniatherum caput-medusae</i>	Medusa-head
<i>Tribulus terrestris</i>	Puncturevine
<i>Vinca major</i>	Periwinkle
<i>Washingtonia robusta</i>	Mexican fan palm
<i>Yucca gloriosa</i> (#)	Spanish Dagger

¹ Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, Fremontia Vol. 26 No. 4, October 1998, The Jepson Manual; Higher Plants of California, and County of San Diego Department of Agriculture.

Key to Table 4-113:

indicates species not on CalEPPC October 1999 "Exotic Pest Plants of Greatest Ecological Concern in California" list

✓ indicates species known to be invasive in the Plan Area

✓✓ indicates particularly troublesome invasive species



October 28, 2022

Peter Satin
Coachella Valley Conservation Commission
73710 Fred Waring Dr #200
Palm Desert, CA 92260

RE: Comments on Joint Project Review for CVCC 22-002 Global Water Farms Desalination Plant

Dear Mr. Satin:

The California Department of Fish and Wildlife (CDFW) has reviewed the project application and comments by the Coachella Valley Conservation Commission (CVCC) regarding the Joint Project Review for CVCC 22-002 Global Water Farms Desalination Plant (Project). The Project, located in the Dos Palmas Conservation Area, proposes the construction of two separate desalination facilities over two phases. During Phase 1, a pilot desalination project will be constructed over approximately 2.35 acres and operations will last no more than 5 years. Implementation of Phase 2, which is contingent on success of Phase 1 among other items, includes a full build-out of a separate desalination facility across an approximately 63 acres at a different location than Phase 1. Limited details are provided in the Project application regarding the design of Phase 2. Due to limited information on the design of Phase 2 in the Project application, CDFW is unable to provide comments on Phase 2 of the Project regarding its consistency with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). CDFW agrees with the Project application in that a separate Joint Project Review will be needed for Phase 2 of the Project if the Project applicant moves forward with its implementation. Therefore, the following CDFW comments address only Phase 1 of the Project and its consistency with the CVMSHCP.

In addition to CVCC's recommendations for the Project included in the draft Joint Project Review, CDFW provides the following recommendations on the Project's consistency with the Conservation Objectives and Required Measures for the Dos Palmas Conservation Area (CVMSHCP Section 4.3.19), applicable Required Avoidance, Minimization, and Mitigation Measures (Section 4.4), and Land Use Adjacency Guidelines (Section 4.5) to ensure the County of Riverside (Permittee) and the Project is in compliance with the CVMSHCP:

Conservation Objectives and Required Measures for Dos Palmas Conservation Area (Section 4.3.19)

The Conservation Objectives and Required Measures for the Dos Palmas Conservation Area that directly apply to the Project include the following:

- Conservation Objective 3: Conserve Le Conte's thrasher nesting sites as described in Section 4.4 avoidance, minimization, and mitigation measures.
- Required Measure 7: The Permittees shall comply with applicable avoidance, minimization, and mitigation measures described in Section 4.4 and the Land Use Adjacency Guidelines as described in Section 4.5.

For both items, see Required Avoidance, Minimization, and Mitigation Measures section below.

Required Avoidance, Minimization, and Mitigation Measures (AMMMs; Section 4.4)

The Permittee is required to ensure the Project's compliance with all applicable Required Avoidance, Minimization, and Mitigation Measures. CDFW agrees with CVCC that applicable AMMMs include those that address Le Conte's thrasher and burrowing owl. Per CVMSHCP Section 4.4, required surveys shall be conducted in accordance with established accepted protocols if they exist. CDFW provides the following comments regarding survey protocols for Le Conte's thrasher and burrowing owl.

Le Conte's thrasher

In addition to CVCC's comments regarding appropriate survey protocols for Le Conte's thrasher, CDFW recommends that the Permittee ensure the Project applicant conducts surveys following the CVCC's Biological Monitoring Protocol for Le Conte's Thrasher, 2013 (attached), which includes the use of call-broadcast surveys. Le Conte's thrasher can be difficult to detect. Implementing the above-mentioned survey protocols will help the Permittee conserve Le Conte's thrasher nesting sites (Conservation Objective 3) and support the Project applicant in avoiding the unlawful take of nests, eggs, or migratory birds as prohibited by Fish and Game Code sections 3503, 3503.5, and 3513.

Burrowing Owls

CDFW recommends that the Permittee ensure the Project applicant carries out burrowing owl surveys following the recommended guidelines in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012 or most recent version); available for download from CDFW's website: <https://www.wildlife.ca.gov/conservation/survey-protocols>. The Staff Report on Burrowing Owl Mitigation specifies that project impact evaluations include the following steps: (1) habitat assessment, (2) surveys, and (3) an impact assessment. The three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance and minimization measures. Following these recommended guidelines will support the Permittee in protecting burrowing owls in the Dos Palmas Conservation

Peter Satin, Regional Planner
Coachella Valley Conservation Commission
October 28, 2022
Page 3

Area and help the Project applicant avoid the unlawful take of nests, eggs, or migratory birds as prohibited by Fish and Game Code sections 3503, 3503.5, and 3513.

Land Use Adjacency Guidelines (LUAGs; Section 4.5)

CDFW concurs with CVCC that the discharges of processed water or other byproducts released into the environment by the Project may have negative impacts on the biological resources of the Conservation Area. CDFW supports CVCC's recommendation that the Permittee ensure the Project applicant consults with the Colorado River Basin Regional Water Quality Control Board regarding Project's discharges to ensure any applicable water quality or waste discharge requirements are met.

CDFW recommends that the Permittee work with the Project applicant to incorporate the recommendations discussed above.

If you have any questions regarding these comments, please reach out to Jacob Skaggs, Environmental Scientist, at jacob.skaggs@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Heather Brashear
4ADE68D237B0401...

Heather Brashear
Senior Environmental Scientist Supervisor

ec:

Vincent James, U.S. Fish and Wildlife Service
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