Appendix B

Global Water Farms Pilot Project Part of Assessor's Parcel Number 731-170-001

Biological Resources Assessment &

Multiple Species Habitat Conservation Plan Compliance Report

GLOBAL WATER FARMS PILOT PROJECT
Part of Assessor's Parcel Number 731-170-001

Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Compliance Report

North Shore / Desert Beach Community of Unincorporated Riverside County, California

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1.0 INTRODUCTION

At the request of Terra Nova Planning and Research, Inc., this biological resources assessment & Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) compliance report was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) for the proposed Global Water Farms Pilot Project (project) in the North Shore / Desert Beach Community of Unincorporated Riverside County, California (Figure 1). The approximately 2.35-acre project site is located immediately southwest of Coachella Canal Road and the Coachella Canal, just west of Siphon 21 of the canal. The nearest named road to the west is Vaughn Road and to the south, Chick Road. The site is located within Section 35 of Township 8 South, Range 12 East of the United States Geological Survey (USGS) 7.5' *Frink NW, CA* quadrangle (Figure 2). The project site is in the northeastern corner of a 641.39-acre parcel, assessor's parcel number (APN) 731-170-001. See the conditional use permit (Appendix 1).

Information contained herein is intended to be used for compliance with state and federal regulations intended to protect waters, wildlife, special status elements, and their habitats.

2.0 PROJECT DESCRIPTION

The proposed project is a 13,484-square-foot water desalination facility (Figure 3, Appendix 1) on approximately 2.78 acres of vacant, undeveloped land (Exhibit 3). The project site is part of a 641±-acre parcel (Assessor's Parcel No. 731-170-001), and has no formal address assigned. A map showing the location and dimensions of the parcel is provided in Appendix 1. The project proposes a pilot desalination plant to assess the feasibility of salt-water desalination for production of distilled water. If it is proven feasible, full-scale development in the future may utilize the entire parcel for desalination. However, the scope of this proposed project is limited to the pilot project only on the 2.78±-acre project site. We have no plans for the potential future expansion, so no area of hypothetical future impacts can be identified at this time.

The applicant proposes to build a water desalination facility with a one-story, 13,484-square-foot building, a walled and covered salt storage area, ground mounted solar panels, a surface parking area with an Americans with Disabilities Act (ADA) parking stall, and a minor concrete pad for a portable restroom, building access and storm water collection/conveyance on the project site. A retention basin is proposed on the south side of the building. The building includes a 10,540-square-foot brine tank room with insulated recessed cement foundational heating tanks and a 2,944-square- foot mechanical/control room. The project will also construct two underground water lines, one connecting the building to an existing water well to the east, the other connecting the building to a depressed area to the southwest.

Offsite impacts will be limited to:

A. The depressed area, which appears to be an old, constructed pond, will be utilized temporarily to hold desalinated water, as described below. Once water quality has been established, all water produced will be bottled and usage of the depression will cease, and

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1 inch = 2 miles

0 1 2 Miles

wood.

Initial Development Area

FIGURE 1

Regional Map
Global Water Farms
Pilot Project
Riverside County, California

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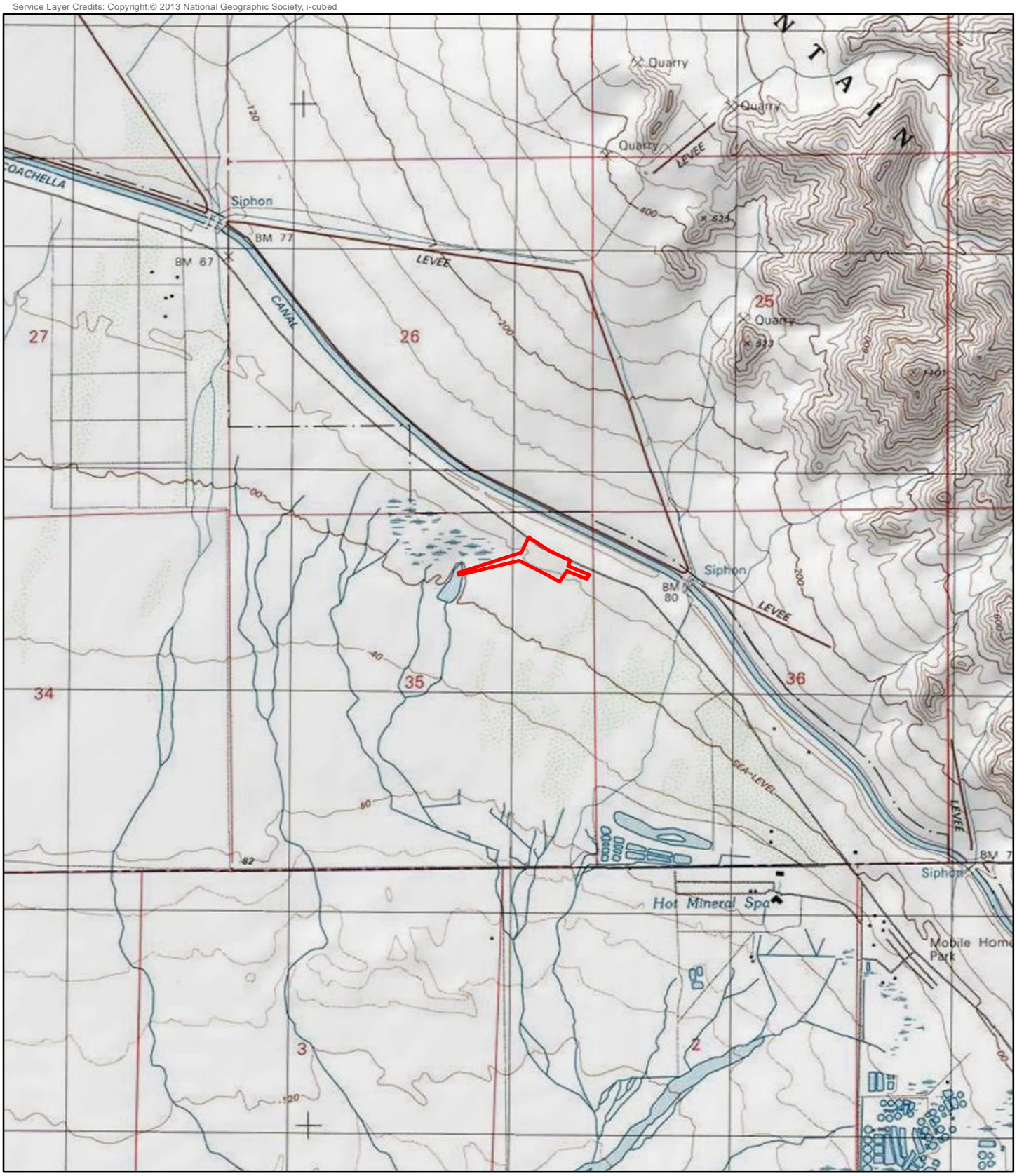

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1 inch = 2,000 feet
0 1,000 2,000 Feet

wood.

Initial Development Area

FIGURE 2

USGS 7.5' Topo Quad: Frink
Global Water Farms
Pilot Project
Riverside County, California

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1 inch = 350 feet

0 175 350 Feet

Photo Point

Existing Onsite/Offsite Impacts

Offsite Impacts

Initial Development Area

wood.

FIGURE 3

Site Location and Photo Locations
Global Water Farms
Pilot Project
Riverside County, California

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B. Existing impacts on the north side of the project site (Figure 3). At that location, construction materials were delivered and placed on a recently cleared pad both onsite and offsite for temporary storage only. Upon completion of construction on the project site, there will be no offsite use or activity in this area.

There will be no access road improvements.

The proposed project will install a well head and pump at the existing well to extract water and deliver it via the underground pipeline to the building for desalination. At first, the desalinated water will be conveyed to the depression area via the underground pipeline and allowed to percolate back into the ground. After testing and proof of adequate water quality, processed water will be bottled in the building and most likely sold to industry for microchip processing or expanded to other uses. The salt produced by the desalination process will be stored on-site in a 2,500±-square-foot area with 3.5-foot masonry block retaining walls on three sides and tarp cover on top. Due to the low salinity of well water, it is expected that salt will be hauled off-site every two months in a truck with 10-cubic-yard capacity.

The proposed project is the pilot phase of a full-scale development, and project operation is intended to demonstrate feasibility of water desalination for various uses such as supplementing local water supply from degraded water sources including the Salton Sea. The distilled water produced during the proposed project operation is not expected to be a potable water supply, but rather may be tested for such purpose to prove the concept and establish feasibility for future full-scale development. Based on consultation with the County, the project can be construed as a mining use for water and salt. Per the Riverside County Land Use Ordinance, the project will need a Conditional Use Permit (CUP) for the proposed desalination uses in the Controlled Development Areas (W-2) zone.

Construction is expected to last four months; a specific start date is not yet available. Maximum depth of ground disturbance is expected to be about 15 feet for the building and three feet for the underground pipelines. The facility will be in operation from 8am to 5pm daily.

Access is proposed via Coachella Canal Road and will be limited to project staff and periodic haul trucks for salt removal.

The project will not require any dry or wet utility connections. The desalination facility will utilize onsite solar energy and propane gas. A portable restroom will be placed to the northwest of the proposed building.

3.0 REGULATORY FRAMEWORK

Several relevant biological and environmental regulations have been included in this section, but the CVMSHCP is the primary regulatory entity for this project.

3.1 Coachella Valley Multiple Species Habitat Conservation Plan

Finalized in October 2008, the CVMSHCP is a comprehensive regional plan that addresses the conservation needs of 27 species of native flora and fauna and 27 natural vegetation communities occurring throughout the Coachella Valley region of western Riverside County,

California (Coachella Valley Association of Governments [CVAG] 2021). Permits for the CVMSHCP were issued by the California Department of Fish and Game (CDFG) [now the California Department of Fish and Wildlife (CDFW)] on September 9, 2008 and the United States Fish and Wildlife Service (USFWS) on October 1, 2008 (TE104604-0). The CVMSHCP serves two primary purposes: Balancing environmental protection and economic development objectives in the CVMSHCP area and simplifying compliance with endangered species related laws. The CVMSHCP accomplishes this by conserving unfragmented habitat to permanently protect and secure viable populations of the covered species.

The covered species include plants and animals that are either currently listed as threatened or endangered, are proposed for listing, or are believed by an USFWS and CDFW appointed Scientific Advisory Committee, to have a high probability of being proposed for listing in the future if not provided protection by the CVMSHCP. The goal of the CVMSHCP is to meet the requirements of the state and federal endangered species acts, while at the same time allowing for the economic growth (land development) within the CVMSHCP area without significant delay or hidden costs. Under the CVMSHCP, mitigation is required from all new development projects occurring in the CVMSHCP area for the purpose of assembling a preserve system for the covered species and natural vegetation communities within areas identified as having high conservation value.

Federal approval for the CVMSHCP was achieved under the Endangered Species Act (FESA or Act). The USFWS and the National Marine Fisheries Service are the designated federal agencies accountable for administering the FESA. FESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level. Section 10(a) of the FESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans, such as the CVMSHCP.

State approval for the CVMSHCP was under the Natural Community Conservation Planning (NCCP) Program, managed by the CDFW. NCCPs are intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development that species listings are required under the California Endangered Species Act (CESA). Instead of conserving small, often isolated "islands" of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas of land for conservation that would provide habitat for many species. Partners enroll in the programs, and, by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value "reserve" areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation value. The Coachella Valley NCCP is included as a part of the CVMSHCP.

3.2 Protection of Migratory Birds

3.2.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) signed by the U.S., Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in the MBTA document (USFWS 2022). The Secretary of the Interior can issue permits for incidental take of migratory bird species. As with the FESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species.

The USFWS permit for the CVMSHCP allows only for the take of covered bird species *which are also listed under the FESA*, as amended and which are also listed under the MBTA. For other birds protected by the MBTA and not listed under the FESA *no take is authorized* (including killing and wounding of any such birds or take of eggs and active nests). Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct."

3.2.2 Section 3503, 3505.5, & 3513 of the State Fish and Game Code

Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA. See California Legislative Information (2022).

3.3 Waters of the United States and the State of California

Impacts to federal and state jurisdictional waters are not covered by the CVMSHCP.

3.3.1 United States Army Corps of Engineers (USACE)

The USACE regulates the discharge of dredged or fill material in Waters of the United States (WUS) pursuant to Section 404 of the Clean Water Act (CWA).

3.3.2 Regional Water Quality Control Board (RWQCB)

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WUS but may also include isolated waterbodies. The Porter Cologne Act defines WSC as "surface water or ground water, including saline waters, within the boundaries of the state".

3.3.3 California Department of Fish and Wildlife

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states:

> "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake."

4.0 METHODS

4.1 Literature Review

In preparation for the field visits, a literature search was conducted to identify special status biological resources known from the vicinity of the site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within a five-mile radius of the site.

The literature review included the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2022a)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2022)
- CVMSHCP (CVAG 2022)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2019. Web Soil Survey
- USGS 7.5' *Frink NW, Frink NE, Frink, Durmid,* and *Red Canyon, CA* quadrangles

This document utilized the following standard references: for plant communities, the CVMSHCP (2022); for flora, the Jepson Flora Project (2022) and USDA NRCS PLANTS Database (2022); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, the California Bird Records Committee (2022).

4.2 Field Assessment

The field assessment visit was conducted on 24 February 2022 by Wood Senior Biologist John F. Green. General weather and site conditions were recorded at the beginning and end of the assessment. Temperatures and wind speeds were recorded with a handheld Kestrel anemometer. Temperatures during the 1125-1330 visit ranged from 65 to 60 degrees Fahrenheit with winds from 0 to 7 miles per hour under partly cloudy skies. Suitable habitat was assessed based on the presence or absence of habitat components (e.g., soils, vegetation and topography) characteristic of special status biological resources which were determined by the literature review to be potentially present. Pedestrian transects were walked around the entire 2.35-acre project site. All flora and fauna observed or otherwise detected (e.g., dead remains [primarily plants], vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendices 2 and 3. Plant species of uncertain

identity were photographed for identification. Representative photos were taken (Appendix 4). Their direction and locations are shown on Figure 3.

5.0 RESULTS

The project site is largely undeveloped, but not entirely undisturbed. The surrounding area is also largely undeveloped but the Coachella Canal, a gas pipeline, and associated roads and infrastructure are to the immediate north (Figure 2) and hot springs resorts and/or residences are present about one mile to the southeast and northwest. A pad has recently been cleared both on and offsite (Figure 3, Photos 1 and 2 in Appendix 4) and materials and trailers have been delivered. Materials and piles of graded vegetation are present within the onsite pad; in newly disturbed areas offsite on the north side of the Coachella Canal Road; and on top of living vegetation (Photo 2 in Appendix 4) in both locations.

Some old pipe infrastructure is present onsite (Photo 3 in Appendix 4), possibly associated with a now dry pond (Photo 4 in Appendix 4) at the west end of the project site. Aerial photos dating back to 1953 were reviewed. The pond was present at that time and it dried up between 2006 and 2009. Much of the site also appears to have been vegetated with marsh and wetland associates in low lying areas, with desert dry wash woodland and Sonoran desert scrub in progressively higher areas (Photos 3 – 6 in Appendix 4). No surface water or wet soil remains, and all marsh/wetland vegetation is dead. Most desert dry wash woodland associated plants are dead or dying. Only desert scrub vegetation remains in relatively good condition, however it appears to have been a very dry season at this location. No living annuals were present.

Springs associated with the San Andreas Fault occur in the area. The Coachella Canal a short distance north of the project site was completed in 1948. Leakage from the unlined canal enhanced existing springs and wetlands and/or created new ones. To save water, the canal was lined with concrete as of 2006. Although aerial photos from prior to the creation of the canal could not be located, topographic maps dating back to 1945 do not show waters and wetlands on the project site until 1957. That, plus the disappearance of the water and wetlands after 2006 suggest that they were dependent on leakage from the canal, and not naturally occurring.

5.1 Topography and Soils

The project site undulates between low and high spots. Onsite elevation ranges from approximately 40 – 60 feet (12 – 18 meters) above mean sea level (Figure 2).

The Web Soil Survey (USDA, NRCS 2019) shows the following soil types on the site (Figure 4):

- Carsitas gravelly sand, 0 to 9 percent slopes
- Carsitas gravelly sand, 9 to 30 percent slopes
- Chuckawalla very gravelly sandy clay loam, 2 to 5 percent slopes
- Niland sand, wet, 2 to 5 percent slopes

The Carsitas series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitoid and/or gneissic rocks. They are found in alluvial fans, fan aprons, valley fills, dissected remnants of alluvial fans and in drainageways. Slopes range from 0 to 30 percent.

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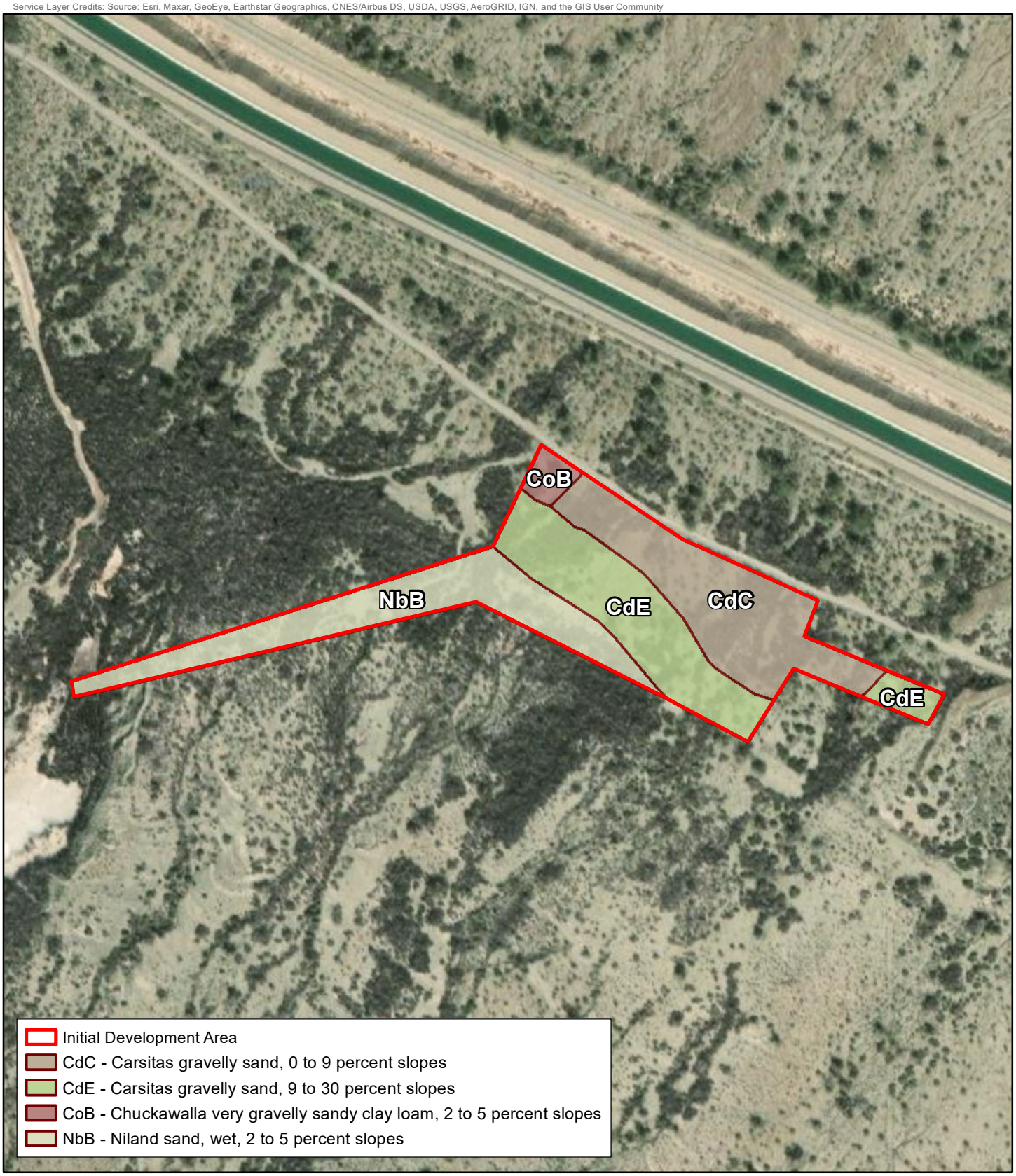

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1 inch = 300 feet
0 150 300 Feet

wood.

FIGURE 4

Soils
Global Water Farms
Pilot Project
Riverside County, California

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- The Chuckawalla series consists of very deep, well drained soils formed in stratified mixed alluvium. They are on fan terraces and have slopes of 0 to 15 percent.
- Niland soils are nearly level and on basin and floodplain edges at elevations of 300 to minus 235 feet. They formed in coarse mixed alluvium overlying fine alluvium at depths of less than 36 inches. Slopes are usually less than 1 percent but range up to 5 percent.
- Although the "Niland sand" was described as "wet," that is not the case now. Sandy and/or gravelly soils are associated with several potentially occurring special status species.

5.2 Hydrology / Jurisdictional Waters

As discussed previously, there are no obvious drainages or washes onsite, only low areas presumed to have formerly gained moisture from canal leakage. Further, if there were any natural drainages present prior to construction of the canal, they were cut off from the site by completion of that project in 1948.

5.3 Vegetation

As explained above, the site is in a transitional state due to the loss of leakage from the Coachella Canal. Current long-term drought conditions may also play a role. Whatever the reason, the freshwater marsh and desert dry wash woodland vegetation communities (natural communities in the parlance of the CVMSHCP) which formerly dominated the site are now largely dead or dying (Photos 3 - 5 in Appendix 4), and no surface water or saturation is apparent. Healthy desert scrub vegetation interspersed throughout the site suggests that in the absence of water and disturbance, the site and its surroundings will eventually transition to a desert scrub vegetation community such as Sonoran creosote bush scrub, desert sink scrub, or similar (Photos 5 & 6 in Appendix 4). As noted above, a portion of the site and an offsite area to the north appear to have been recently disturbed for use as an apparent staging area for the project. There is also an unpaved road onsite which has been present for at least 30 years (Figure 5).

Only eight plant species were detected during the field visit. A list including common and scientific names, is attached (Appendix 2). Three of the plants detected were not native. It should be noted that short-term biological studies of this nature are limited by the seasonality of plants and the timing of field visits. Only one annual was identifiable from dried remains; no live annuals were present.

5.4 Wildlife

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, prints, feathers, burrows, etc.) during the assessment included a minimum of 13 species. This included one reptile, 16 birds and at least three mammals. See Appendix 3 for a list of the species detected.

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1 inch = 300 feet

0 150 300 Feet

Initial Development Area

Vegetation Community

Disturbed

Former freshwater marsh and desert dry wash woodland transitioning to Sonoran desert scrub

wood.

FIGURE 5

Vegetation Communities
Global Water Farms
Pilot Project
Riverside County, California

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It should be noted that short-term biological studies of this nature are limited by seasonality (for example migratory birds and "hibernating" mammals and reptiles), the fossorial and nocturnal habits of many mammals and reptiles, and the timing of field surveys. A complete inventory of the wildlife on the site would require extensive year-round surveys for amphibians, reptiles, birds, and mammals including, for example: pitfall traps for amphibians and reptiles, and live trapping and/or the placement of tracking stations for the detection of nocturnal mammals.

5.5 Special Status Elements

Plant or animal taxa may be considered "sensitive" or as having "special status" due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS or by the CDFW and are protected by the FESA and/or CESA. Others have been identified as sensitive or as special status species by the USFWS, the CDFW, or by private conservation organizations, including the CNPS. Unlisted sensitive species do not have formal state or federal status, but may nevertheless be considered significant.

Knowledge of habitat associations, natural history, seasonality, and distribution is essential in the assessment of the potential for occurrence of the various sensitive plants and animals known to occur throughout the region. For these reasons, special status species that were not observed on the site may have the potential to occur based on their geographic distribution, habitat preferences, and the regional location of the site. Tables 1-6 below summarize sensitive species known to occur in the vicinity of the site and include their potential occurrence status on the site based on the best available information and the collective expertise of Wood biologists.

The CVMSHCP provides conservation for 27 imperiled plant and animal species and 27 natural communities (vegetation). These include federal and state-listed species, federal and state species of concern, and species on the CNPS rare plant species lists. The CVMSHCP has created modeled habitat polygons for many of those species. Modeled habitat is present within the project site for three species: Palm Springs pocket mouse (*Perognathus longimembris bangsi*), Coachella Valley round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*), and LeConte's thrasher (*Toxostoma lecontei*). Several other special status species, not covered by the CVMSHCP, may also potentially occur onsite.

The literature review and biological resources assessment resulted in the identification of 23 special status elements which were either observed on the site, had CNDDB records within an approximate five-mile radius of the site, and/or which have potentially suitable habitat on the site. These included six plants, one vegetation community, two fish, one reptile, eight birds, and five mammals. Tables 1 through 6 provide a complete list of these sensitive biological resources, their associated status, their general habitat associations, and their respective site occurrence potential based on geographic distribution and the presence of potentially suitable habitat.

Table 1 Special Status Plants

Species	Status	Habitat	Probability
Astragalus crotalariae **Salton milk-vetch**	CVMSHCP = No F = ND C = S4 CNPS = 4.3	Sonoran desert scrub. -60 to 250 meters (m). Blooms (B): January - April	**Moderate** Habitat suitable
Chylismia arenaria **sand evening-primrose**	CVMSHCP = No F = ND C = S2S3 CNPS = 2B.2	Sonoran desert scrub. –70 to 915 m. B: November – May.	**Moderate** Habitat suitable
Colubrina californica **Las Animas colubrina**	CVMSHCP = No F = ND C = S2S3 CNPS = 2B.3	Mojavean & Sonoran desert scrub. 10 to 1,000 m. B: April – June.	**Moderate** Habitat suitable
Petalonyx linearis **narrow-leaf sandpaper-plant**	CVMSHCP = No F = ND C = S2S3 CNPS = 2B.3	Mojavean & Sonoran desert scrub in sandy or rocky canyons. -25 to 1,115 m. B: (January – February) March – May (June – December).	**Very Low** Habitat marginal
Pseudorontium cyathiferum **Deep Canyon snapdragon**	CVMSHCP = No F = ND C = S1 CNPS = 2B.3	Sonoran desert scrub in rocky washes and on rocky slopes in the immediate vicinity of Deep Canyon. 0-800 m. B: February -April	**Absent** Site east of known range in California
Salvia greatae **Orocopia sage**	CVMSHCP = **Yes** F = ND C = S2S3 CNPS = 1B.3	Mojavean & Sonoran desert scrub on broad alluvial bajadas and fans adjacent to desert washes in gravelly or rocky soil or on rocky slopes of canyons. -45 - 825 m. B: March – April.	**Low** Habitat marginal

Table 2 Special Status Vegetation (Natural) Community

Species	Status	Habitat	Probability
Desert Dry Wash Woodland	CVMSHCP = **Yes** F = ND C = S3.2	Open to dense, drought deciduous, microphyllous thorn scrub woodland up to 60 feet tall. Dominated by members of the pea family It occurs in areas subject to intermittent flooding, but without perennial water.	**Occurs** In poor condition due to lack of water.

Table 3 Special Status Fish

Species	Status	Habitat	Probability
Cyprinodon macularius **desert pupfish**	CVMSHCP = **Yes** F = **END** C = **END**, S1	Desert ponds, springs, marshes and streams.	**Absent** Habitat unsuitable (no water).
Xyrauchen texanus **razorback sucker**	CVMSHCP = No F = **END** C = **END**, **FP**, S1S2	Adapted for swimming in swift currents but also need quiet waters. Spawn in areas of sand/gravel/rocks in shallow water	**Absent** Habitat unsuitable (no water).

Table 4 Special Status Reptile

Species	Status	Habitat	Probability
Phrynosoma mcallii **flat-tailed horned lizard**	CVMSHCP = **Yes** F = ND C =SSC, S2	Restricted to desert washes and desert flats; requires vegetative cover, ants, and fine sand.	**Absent** No suitable habitat.

Table 5 Special Status Birds

Species	Status	Habitat	Probability
Athene cunicularia **burrowing owl**	CVMSHCP = **Yes*** F = MBTA, BCC C = SSC, S2, FGC	Open, dry annual or perennial grassland, deserts & scrublands characterized by low-growing vegetation. Burrows essential.	**Low** Habitat marginal and sparse.
Calypte costae **Costa's hummingbird**	CVMSHCP = No F = MBTA, BCC C = S4, FGC	Primary habitats are desert wash, edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent shrub, lower-elevation chaparral, and palm oasis.	**Occurs** Nesting and foraging habitat onsite.
Falco mexicanus **prairie falcon**	CVMSHCP = No F = MBTA, BCC C = SSC, S3, FGC	Breeding sites located on cliffs, but forages far afield.	**Moderate** No nesting habitat, potential for foraging only.
Lanius ludovicianus **loggerhead shrike**	CVMSHCP = No F = MBTA, BCC C = SSC, S4, FGC	Found in open habitats with widely spaced vegetation.	**Moderate** Nesting and foraging habitat onsite.
Laterallus jamaicensis coturniculus **California black rail**	CVMSHCP = **Yes*** F: MBTA, BCC C: THR, FP, S1, FGC	Dense coastal and inland marsh habitat with shallow water.	**Absent** No suitable habitat.
Polioptila melanura **black-tailed gnatcatcher**	CVMSHCP = No F = MBTA C = WL, S3S4, FGC	Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter.	**Occurs** Nesting and foraging habitat present.
Rallus obsoletus yumanensis **Yuma Ridgway's rail**	CVMSHCP = **Yes*** F: END C: THR, FP, S1, FGC	Well-developed marsh habitats.	**Absent** No suitable habitat.
Toxostoma lecontei **LeConte's thrasher**	CVMSHCP = **Yes*** F = MBTA, BCC C = SSC (San Joaquin population only), S3, FGC	Primarily utilizes open desert washes, desert scrub, alkali desert scrub, and desert succulent scrub habitats; commonly nests in a dense, spiny shrub or densely branched cactus.	**Low** Habitat marginal, site is in CVMSHCP modeled habitat.

* Species is to be conserved under the CVMSHCP, but is still protected by the MBTA

Table 6 Special Status Mammals

Species	Status	Habitat	Probability
Antrozous pallidus **pallid bat**	CVMSHCP = No F = None C = SSC, S3 WBWG = H	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	**Low** No suitable roosting habitat but could forage onsite.
Lasiurus xanthinus **western yellow bat**	CVMSHCP = **Yes** F = ND C = SSC, S3 WBWG = H	Found in valley foothill riparian, desert riparian & wash, & palm oasis habitats. Forages over water & among trees. Roosts in trees, particularly palms.	**Low** No suitable palms onsite but could forage and potentially utilize other trees onsite for roosting.
Ovis canadensis nelsoni **desert bighorn sheep**	CVMSHCP = No F = None C = **FP**, S3	Open, rocky, steep areas with available water and herbaceous forage.	**Absent** No suitable habitat.
Perognathus longimembris bangsi **Palm Springs pocket mouse**	CVMSHCP = **Yes** F = None C = SSC, S2	Inhabits flat or gently sloping areas with sparse vegetative cover and packed or sandy soils.	**High** Habitat suitable, site is in CVMSHCP modeled habitat.
Xerospermophilus tereticaudus chlorus **Coachella Valley (Palm Springs) round-tailed ground squirrel**	CVMSHCP = **Yes** F = None C = SSC, S1S2	Prefers open, flat, grassy areas in fine-textured, sandy soil in desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees.	**Low** Habitat marginal, site is in CVMSHCP modeled habitat.

Definitions of status designations and occurrence probabilities for Tables 1-6

Definitions of occurrence probability:

Occurs*:* Observed onsite by Wood personnel or recently reported onsite by another reliable source.

High:Observed in similar habitat in region by qualified biologists, or habitat onsite is a type often utilized by the species and the site is within the known range of the species.

Moderate:Reported sightings in surrounding region, or site is within the known range of the species and habitat onsite is a type occasionally used by the species.

Low*:* Site is within the known range of the species but habitat onsite is rarely used by the species

Absent:A focused study failed to detect the species, suitable habitat not present, or site is outside the geographic distribution of the species.

Unknown:No focused surveys have been performed in the region, species' distribution and habitat are poorly known.

CVMSHCP designations

Yes: Conserved by the CVMSHCP
No: Not Specifically Conserved by the CVMSHCP
Considered: Considered, but not included in the CVMSHCP

Federal designations: (F = federal Endangered Species Act or USFWS designations)
END:Federally listed, Endangered
THR:Federally listed, Threatened
CAN:Candidate for Federal listing
MBTA: Migratory Bird Treaty Act
BEPA:Bald Eagle Protection Act (also protects Golden Eagles)
BCC:Birds of Conservation Concern
ND:No designation

***State designations*:** (C = California Endangered Species Act or CDFW designations)
END:State listed, Endangered
THR:State listed, Threatened
CAN:Candidate for State listing
RARE:State listed, Rare
FP:Fully Protected Species
FGC: Fish and Game Code
SSC:Species of Special Concern
WL:Watch List Species
ND:No designation

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
- **S1.1** = very threatened
- **S1.2** = threatened
- **S1.3** = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- **S2.1** = very threatened
- **S2.2** = threatened
- **S2.3** = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- **S3.1** = very threatened
- **S3.2** = threatened
- **S3.3** = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.
S5 = Secure. Common, widespread, and abundant in the state.
SH = All known California sites are historical, not extant

California Native Plant Society (CNPS) designations:

Primary Categories

LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere
LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
LIST 3: Plants About Which More Information is Needed - A Review List
LIST 4: Plants of Limited Distribution - A Watch List

Subdivisions within Categories

0.1: Seriously threatened in California
0.2: Moderately threatened in California
0.3: Not very threatened in California

Western Bat Working Group (WBWG) designations:

The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western States and provinces. Its goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs.

H: High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

M: Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

L: Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.

P: Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

5.6 CVMSHCP Conservation Areas

The project site and all lands surrounding it are within the CVMSHCP designated Dos Palmas Conservation Area (Figure 6). This conservation area contains "core habitat" for desert pupfish and crissal thrasher. It also protects one of the two known habitat areas or Yuma Ridgway's (clapper) rail and California black rail. It contains "other conserved habitat" for Orocopia sage, desert tortoise (*Gopherus agassizii*), flat-tailed horned lizard, LeConte's thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, and western yellow bat. Finally, it contains suitable migration and breeding habitat for the riparian species covered by the plan.

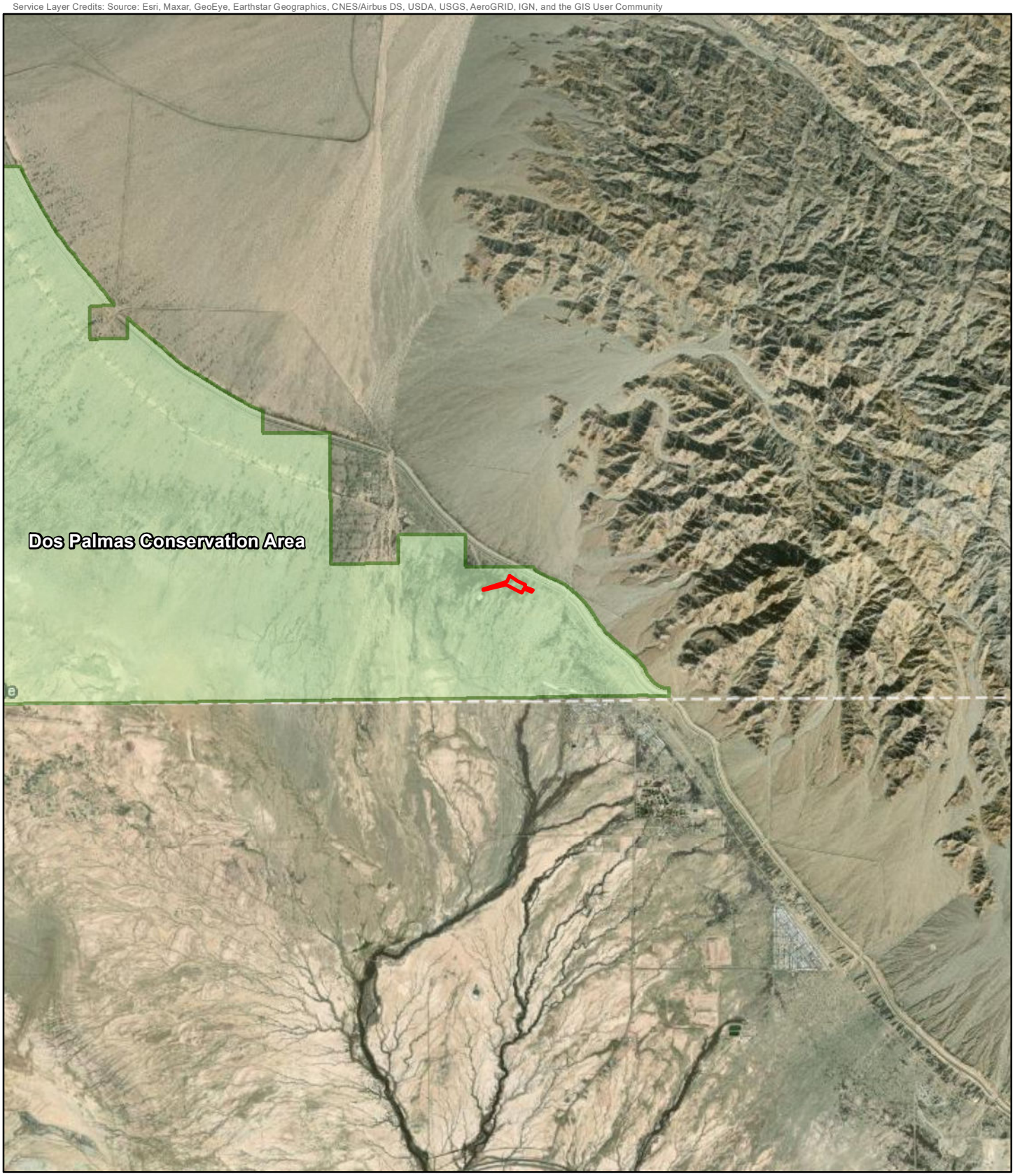
Natural communities occurring in the conservation area are mesquite hummocks, Sonoran creosote bush scrub, desert sink scrub, cismontane alkali marsh, desert dry wash woodland, desert fan palm oasis woodland, arrowweed scrub, and mesquite bosque. The conservation area affords important habitat restoration opportunities because of the prevalence of saltcedar (*Tamarix ramosissima*).

Essential ecological processes for this area have been somewhat impacted by the Coachella Canal, which has blocked natural drainage patterns from the Orocopia Mountains. Likewise, the canal has disrupted connectivity with the Orocopia Mountains to the north to some extent. Only in siphon areas where the canal runs underground can terrestrial wildlife move freely from one side of the canal to the other.

The conservation objectives for the Dos Palmas Conservation Area include:

- conserve core habitat for crissal thrasher and habitat for the California black rail and Yuma Ridgway's rail
- Conserve other conserved habitat for LeConte's thrasher and the flat-tailed horned lizard.
- Conserve all known locations for the desert pupfish.
- Conserve at least 23 acres of mesquite hummocks, 205 acres of cismontane alkali marsh, 746 acres of desert dry wash woodland, 134 acres of arrowweed scrub, and 320 acres of mesquite bosque natural communities, which provide habitat for riparian birds and other covered species. Where disturbance is authorized for cismontane alkali marsh and arrowweed scrub, ensure no net loss.
- Conserve at least 50 acres of the desert fan palm oasis woodland for the conservation of the western yellow bat.
- Conserve at least 4,381 acres of the desert sink scrub natural community.
- Remove tamarisk to improve habitat values.

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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1 inch = 1 miles
0 0.5 1 Miles

Initial Development Area
CVMSHCP Conservation Area

wood.

FIGURE 6

CVMSHCP Conservation Areas
Global Water Farms
Pilot Project
Riverside County, California

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6.0 DISCUSSION

6.1 Hydrology / Jurisdictional Waters

Natural flow was blocked by the construction of the Coachella Canal, completed in 1948. Leakage from that unlined canal ceased in 2006 upon completion of the current concrete-lined replacement canal in 2006. As a result of these alterations to the landscape, all hydrology formerly existing on this site has been cut off and/or diverted elsewhere and water dependent vegetation is dead or dying. There do not appear to be any active state and/or federal jurisdictional waters onsite. We have no further recommendations in this regard.

6.2 CVMSHCP Conservation Area

The project site and all lands surrounding it are within the CVMSHCP designated Dos Palmas Conservation Area. As a result, the project will not be covered simply by paying plan fees. According to Section 6.6.1.1 of the CVMSHCP, for the purposes of overseeing compliance with the requirements of the CVMSHCP, the Joint Project Review Process (JPRP) with the Coachella Valley Conservation Commission (CVCC) will be required. The purpose of the JPRP is to allow CVCC to facilitate and monitor implementation of the CVMSHCP and achieve conservation area objectives. If not already underway, we recommend that this process be started as soon as is possible. Additionally, the impacts that have already occurred to the conservation area both on and off the project site will need to be discussed with the CVCC. Additional mitigation and/or restoration may be required, however the Riverside County Environmental Programs Division of the Planning Department (2022) has advised that no surveys will be required for covered species.

Conservation objectives of the Dos Palmas Conservation Area which may be impacted and/or have already been impacted by the recent vegetation clearance/pad construction include Orocopia sage, LeConte's thrasher, Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, western yellow bat, Sonoran creosote bush scrub, desert sink scrub, and desert dry wash woodland.

Siphon 21 approximately 0.25 miles east of the project site is presumed to function as a corridor for terrestrial wildlife to move freely from one side of the Coachella Canal to the other. Construction of the project should not impede this.

Being located on and within a conservation area could result in edge effects. Section 4.5 of the CVMSHCP contains guidelines for the prevention of edge effects, as follows. The purpose of these 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.

- 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.
- 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.
- 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 in accordance with the guidelines to be included in the implementation manual.
- Noise: Proposed development adjacent to or within a conservation area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent conservation area in accordance with the guidelines to be included in the implementation manual.
- Invasives: 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 Appendix 4. The plants listed in Appendix 5 shall not be used within or adjacent to a conservation area. Note that the prohibited species saltcedar is already present onsite. Removal of saltcedar may provide some mitigation for impacts.
- 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.
- Grading/Land Development: Manufactured slopes associated with site development shall not extend into adjacent land in a conservation area.

6.3 Special Status Elements Tables

Of the 23 special status elements identified by the literature review and site visit to occur in the site vicinity (see Tables 1-6 above), seven were determined to be absent as shown in the probability column. Since they are not expected to occur onsite or be impacted, those seven will not be discussed further. The remaining 16 species are discussed below.

6.3.1 Plants and Vegetation

Five special status plant species have a low to moderate probability of occurrence onsite: Salton milk-vetch, sand evening-primrose, Las Animas colubrina, narrow-leaved sandpaper plant, and Orocopia sage. Due to the transitional nature of the site's vegetation communities, no significant population of any of these species is expected. Orocopia sage is a CVMSHCP covered species. Riverside County Environmental Programs Division of the Planning Department (2022) has advised that no surveys will be required for this covered species. They are requiring that a focused survey be conducted for the other four species, however. This survey would need to be conducted in April to capture the blooming period of all four species.

6.3.2 Burrowing Owl

The burrowing owl is a covered species under the CVMSHCP, but the federal permit for the CVMSHCP does not allow take of this species under the MBTA. This species nests and roosts underground and is thus particularly vulnerable to ground disturbing activities. Marginal habitat is present onsite for the owl, but the isolated nature of the site and limited burrowing opportunities observed make the possibility of occurrence quite low. Nevertheless, the burrowing owl may occur so full focused surveys are required (Riverside County Environmental Programs Division of the Planning Department 2022, CDFG 2012, CDFW 2014).

6.3.3 Bird Species Not Covered by CVMSHCP Which Do Not Nest Onsite

Prairie falcon is a special status species which could occur as a forager, but no nesting habitat is available onsite. No action is necessary for this species.

6.3.4 Special Status Bird Species

The Costa's hummingbird, loggerhead shrike, black-tailed gnatcatcher and LeConte's thrasher are all special status species which may nest onsite and in the project area. Costa's hummingbird and black-tailed gnatcatcher were present onsite during the field assessment. Of these four, only the LeConte's thrasher is covered by the CVMSHCP. Regardless of their status, all are protected from take by the MBTA and state code. Nesting bird surveys for compliance with the MBTA and state code are required to prevent impacts to these species. This will be discussed further below.

6.4 Migratory Bird Treaty Act and State Fish and Game Code

Virtually all native migratory and resident bird species, including many of the birds already known to occur in the vicinity (Appendix 3) are protected by the MBTA and state code. Avoidance of impacts to nesting migratory and resident birds is a requirement of the federal permit issued for the CVMSHCP. In order to avoid impacting nesting birds, either avoidance of

project-related disturbance during the nesting season (generally from approximately 1 February to 31 August) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to site disturbance during the nesting season is required. If an active nest is detected, a buffer would be established around it and no work would be permitted in that area near the nest until young have fledged. While there is no established protocol for nest avoidance, when consulted, the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey and listed species, and 100 – 300 feet for unlisted songbirds. These measures will protect birds, including the potentially occurring special status species.

6.5 Special Status Mammals

Four special status mammals were identified as being of potential occurrence: pallid bat, western yellow bat, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel. Pallid bat would be expected only during foraging, so is not expected to be impacted and will not be discussed further. All others are covered by the CVMSHCP so no surveys are required (Riverside County Environmental Programs Division of the Planning Department 2022).

7.0 CONCLUSION

Implementation of the proposed project would result in permanent impacts to the project site (see Appendix 1). The JPRP should be initiated with the CVCC as soon as is possible, if not already underway. That process will outline requirements for building in a conservation area. Prior to any further impacts, surveys for rare plants and burrowing owl must be conducted and measures for the protection of nesting birds must be implemented. CVMSHCP Section 4.5 guidelines will need to be implemented for the prevention of edge effects. Also see CVMSHCP landscaping guidelines which are included in Appendices 5 and 6.

With the implementation of the recommendations in this report, impacts to special status elements occurring or potentially occurring in the project area would be expected to be less than significant.

8.0 LITERATURE CITED AND REFERENCES

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APPENDIX 1

CONDITIONAL USE PERMIT

IN THE UNINCORPORATED TERRITORY, COUNTY OF RIVERSIDE

CONDITION USE PERMIT

APN 731-170-001

BEING A PORTION OF THE SOUTH HALF OF THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 12 EAST, SAN BERNARDINO BASE AND MERIDIAN.

PROJECT DESCRIPTION:

CONSTRUCTION OF A PILOT PROJECT, DEVELOPMENT WITH ONE 1 STORY STEEL CONSTRUCTION BUIDLING TOTALING 13,484 SQ. FT. OF NON-LIVABLE SPACE. THE BUIDLING WILL BE COMPRISED OF A 2,944 SQ. FT MECHANICAL ROOM AND A 10,540 SQ. FT. BRINE TANK ROOM FOR THE PURPOSE OF DESALINATION.

THE SITE SHALL ALSO INCLUDE AN OUTDOOR UNISEX PORTABLE LAVORATORY FACILITY WITH WASH SINK, DUMPSTER LOCATION, GRAVEL ENTRY ROAD AND PARKING AREA, CONCRETE ADA PARKING SPACE AND PATH OF TRAVEL TO BUILDING AND GROUND MOUNTED SOLAR FIELD FOR ONSITE ELECTRICAL REQUIREMENTS.

ASSESSOR'S PARCEL NO:
731-170-001

FEMA FLOOD ZONE:
"D" AREA OF UNDETERMINED FLOOD HAZARD
PER FEMA FIRM MAP NO. 06065C8600G
EFFECTIVE DATE: 08-28-2008

LAND USE:
EXISTING - OS-RUR
(NO CHANGE PROPOSED)

ZONING:
EXISTING - W-2
(NO CHANGE PROPOSED)

PILOT PROJECT LOT SUMMARY:

PROPOSED BLDG FOOTPRINT:	13,484 SQFT		
HARDSCAPE AREA (CONCRETE):	1,342 SQFT		
TOTAL NON-PERVIOUS AREA:	14,826 SQFT.	TOTAL BUILDING AREA:	13,484 SQFT.
PERVIOUS AREA (AGG BASE):	4,891 SQFT.	MECHANICAL ROOM:	2,944 SQFT.
PERVIOUS AREA (MISC):	5,910 SQFT.	BRINE TANK ROOM:	10,540 SQFT.
NET LOT LOT AREA:	25,627 SQFT.		

PROPOSED FLOOR PLAN USES:
BUILDING AREA SUMMARY

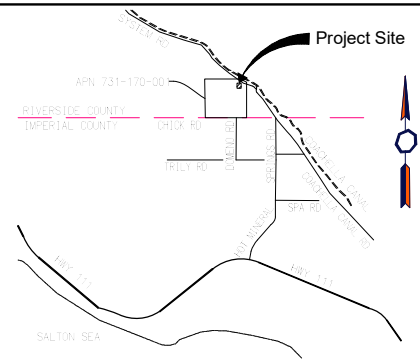
WQMP NOTE:
THIS PROJECT MITIGATES IMPACTS TO WATER QUALITY BY RETAINING 100% OF THE RUNOFF IN AN ONSITE RETENTION BASIN FOR THE INTIAL PHASE OF DEVELOPMENT SEE PRELIMINARY WQMP FOR DETAILS.

SOIL CONDITION NOTE:
PER COUNTY LAND INFORMATION, PROJECT IS LOCATED WITHIN THE SAN ANDREAS FAULT ZONE (HOT SPRINGS FAULT), WITH A LOW LIQUEFACTION POTENTIAL, AND IS SUSCEPTIBLE TO SUBSIDENCE. SEE GEOTECHNICAL STUDY DATED JUNE 9, 2020 FOR DETAILS.

EASEMENT AND CONSTRAINTS TABLE:
NONE

UTILITY PROVIDERS:

ELECTRIC:	IMPERIAL IRRIGATION DISTRICT (IID)	760.339.3640
GAS:	SOUTHERN CALIFORNIA GAS COMPANY	909-307-7939
WATER:	COACHELLA VALLEY WATER DISTRICT (CVWD)	760-398-2651
	CALL BEFORE YOU DIG	811

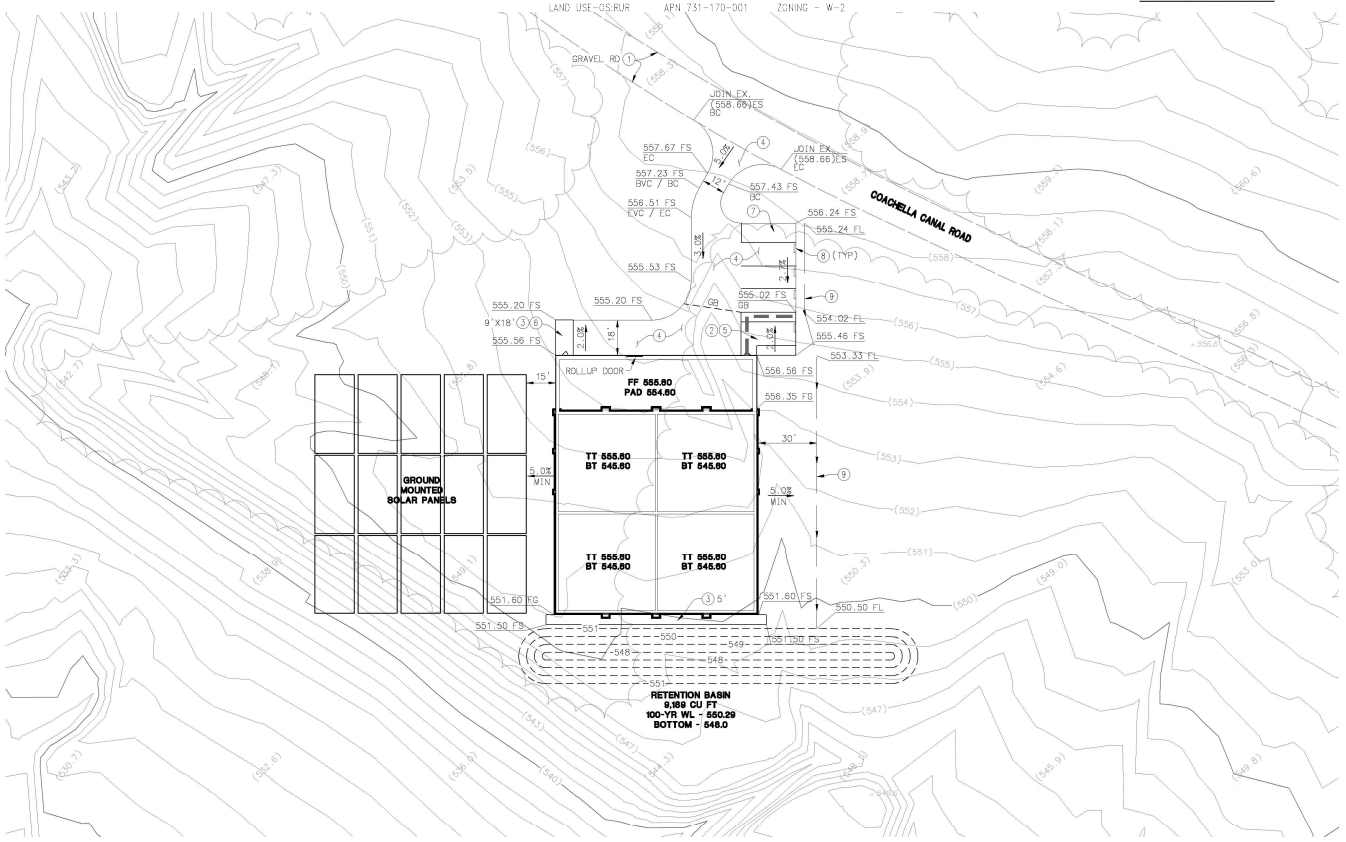


PROPERTY OWNER INFORMATION:
APN 731-170-001
NAME: GLOBAL WATER FARMS
CONTACT PERSON: JON BECKER
MAILING ADDRESS: 77935 CALLE TAMPICO SUITE 101 LA QUINTA, CA 92253
PHONE NUMBER: 866.928.3716
E-MAIL: JBECKER@GLOBALWATERFARMS.COM

APPLICANT/OWNER'S REP:
GLOBAL WATER FARMS
C/O JON BECKER
77935 CALLE TAMPICO, SUITE 101
LA QUINTA, CA 92253
PH: 866.928.3716
JBECKER@GLOBALWATERFARMS.COM

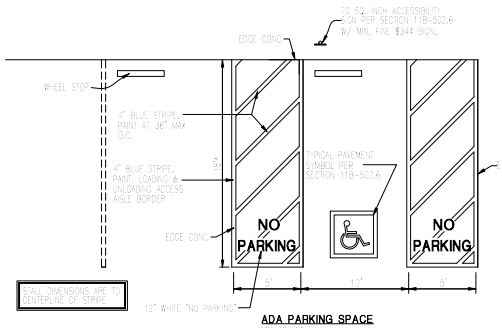
PREPARED BY:
HEPTAGON SEVEN CONSULTING, INC.
BRAD DONAIS, PE
8413 E. BASELINE ROAD, SUITE 106
MESA, AZ 85209
PH: 480.757.0997
BDONAIS@HEPT7.COM

ACCESSIBLE PATH OF TRAVEL: — —



CONSTRUCTION NOTES

1. PROTECT IN PLACE
2. 5" THICK CONCRETE OVER 3" CL 2 CRUSHED MISC. BASE (CMB)
3. 5" CONCRETE PAD OVER 12" RECOMPACTED NATIVE
4. 5" CRUSHED MISC. BASE (CMB) OVER 12" RECOMPACTED NATIVE
5. ACCESSIBLE PARKING SPACE w/ STRIPING AND SIGNAGE PER DETAIL HEREON.
6. UNISEX PORT-A-POTTY w/ SINK
7. DUMPSTER LOCATION
8. 6" LONG PRECAST CONC. WHEEL STOP
9. DRAINAGE SWALE



PLOT DATE: JAN. 7, 2022

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — CONTACT 811 — direct.digalert.org — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

CONTRACTOR:
INSPECTOR:
DATE COMPLETED:
AS BUILT COMP. DATE:
CONSTRUCTION RECORD

BENCHMARK: NGS PID AH9127
EL. = 51.33' (+500'), NAVD88

BASIS OF BEARING: THE PROJECT IS BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM OF 1983, EPOCH 2011.00 ZONE 6, U.S. SURVEY FOOT. PROJECT CONTROL WAS ESTABLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER, CORS "CHLO" AND : PINT" BEING: N 68° 27' 50.12" W

DRAWN BY: B. DONAIS
PREPARED FOR: GLOBAL WATER FARMS
PROJECT NO: 77-100163
SCALE: AS NOTED ON SHEET

REGISTERED PROFESSIONAL ENGINEER — No. 58828 — CIVIL — STATE OF CALIFORNIA

QUALITY, DEDICATION & EXPERIENCE
HEPTAGON SEVEN
PREPARED UNDER THE DIRECT SUPERVISION OF:
DATE: 01/07/2022
8413 E. BASELINE RD SUITE 106 MESA, AZ 85209 PHONE: 480.757.0997

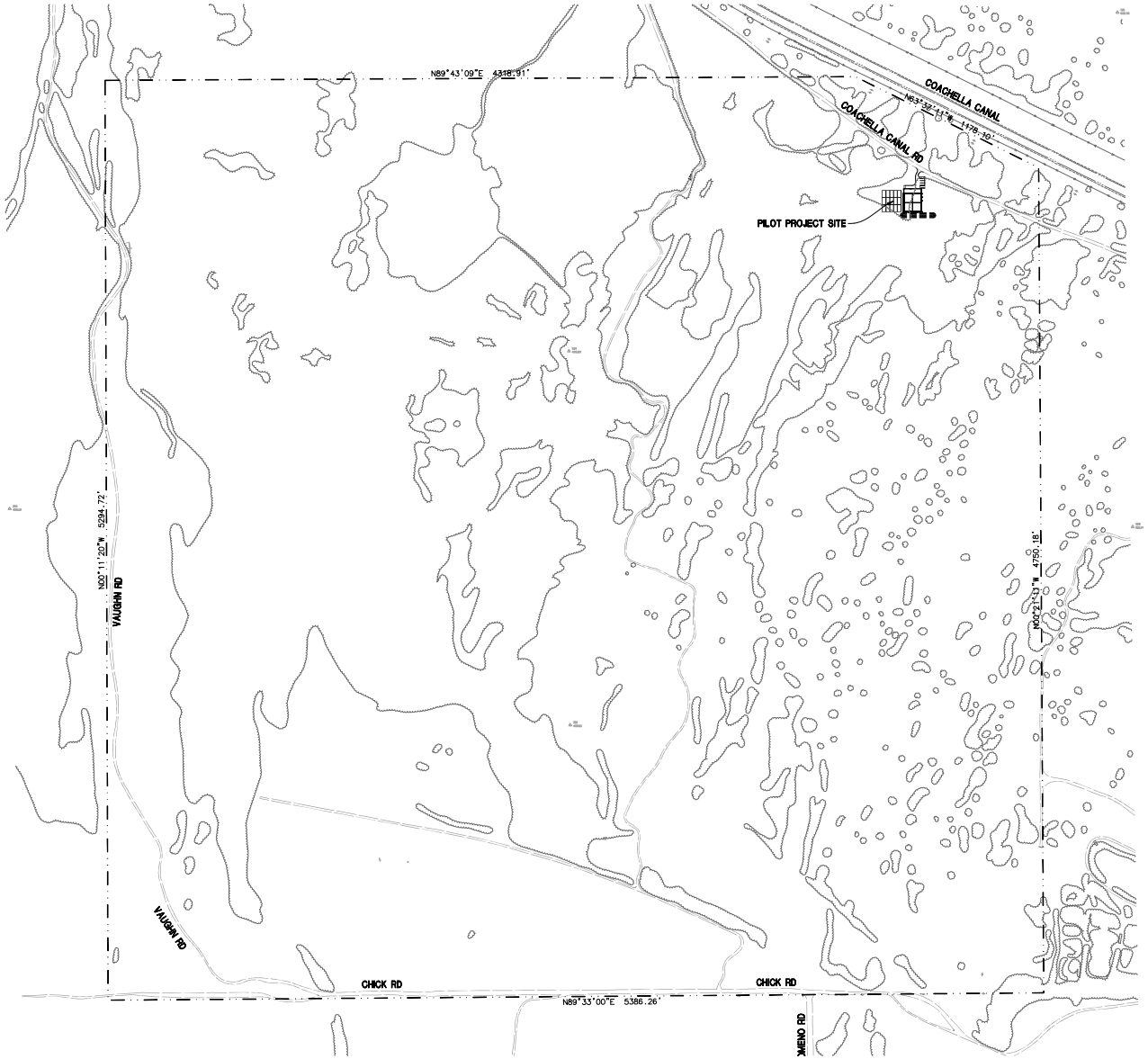
PREPARED FOR:
GLOBAL WATER FARMS
77935 CALLE TAMPICO
SUITE 101
LA QUINTA, CA 92253
PHONE: 866.928.3716
C/O JON BECKER, CEO

IN THE UNINCORPORATE TERRORITY, COUNTY OF RIVERSIDE
GLOBAL WATER FARMS, PILOT PROJECT SITE

CONDITIONAL USE PERMIT

VACANT LAND, APN 731-170-001
LOCATED IN A PORTION OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 12 EAST, SBM

SHEET NO.
C-1
OF 1 SHEETS
COUNTY FILE NO.



300 150 0 300 600 900

SCALE: 1"=300'

PLOT DATE: JAN. 7, 2022

DIGALERT

DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG

CONTACT 811

A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

direct.@digalert.org

CONTRACTOR:	
INSPECTOR:	
DATE COMPLETED:	
AS BUILT COMP. DATE:	
CONSTRUCTION RECORD	

BENCHMARK: NGS PID AH9127
EL. = 51.33' (+500'), NAVD88

BY	DATE	REVISIONS	APP'D	DATE
ENGINEER				

BASIS OF BEARING: THE PROJECT IS BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM OF 1983, EPOCH 2011.00 ZONE 6, U.S. SURVEY FOOT. PROJECT CONTROL WAS ESTABLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER, CORS "DHLG" AND :PINI" BEING: N 68° 27' 50.12" W

DRAWN BY: B. DONAIS

PREPARED FOR: GLOBAL WATER FARMS

PROJECT No.: 77-100163

SCALE: AS NOTED ON SHEET

REGISTERED PROFESSIONAL ENGINEER — BRADLEY J. DONAIS — No. 68828 — CIVIL — STATE OF CALIFORNIA

QUALITY, DEDICATION & EXPERIENCE

HEPTAGON SEVEN

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PREPARED UNDER THE DIRECT SUPERVISION OF:

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DATE: 01/07/2022

R.C.E. 68828 EXP. 09/30/2023

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C/O JON BECKER, CEO

IN THE UNINCORPORATE TERRORITY, COUNTY OF RIVERSIDE

GLOBAL WATER FARMS, PILOT PROJECT SITE

BOUNDARY

VACANT LAND, APN 731-170-001
LOCATED IN A PORTION OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 12 EAST, SBM

SHEET NO.

C-2

OF 2 SHEETS

COUTY FILE NO.

APPENDIX 2

SPECIES LIST: VASCULAR PLANTS

Species List: Vascular Plants

This list reports only plants observed onsite by this study. Other species may have been overlooked or undetectable due to their growing season.
†= *special status species,* * = non-native species, sp. = identified only to genus, spp. = two or more species, cf = compares favorably with, var. = variety, ssp. = subspecies

DICOTYLEDONEAE	**DICOT FLOWERING PLANTS**
Asteraceae	**Sunflower Family**
Encelia farinosa	brittlebush
Chenopodiaceae	**Goosefoot Family**
Atriplex hymenelytra	desert-holly
Fabaceae	**Pea Family**
Olneya tesota	ironwood
Solanaceae	**Nightshade Family**
Lycium cf. *brevipes* var. *brevipes*	Baja desert-thorn
Tamaricaceae	**Tamarisk Family**
**Tamarix ramosissima*	saltcedar
Zygophyllaceae	**Caltrop Family**
Larrea tridentata	creosote bush
MONOCOTYLEDONEAE	**MONOCOT FLOWERING PLANTS**
Arecaceae	**Palm Family**
*cf. *Phoenix dactylifera*	date palm (dying)
Poaceae	**Grass Family**
***Schismus* sp. (dry remains)	Mediterranean grass

APPENDIX 3

SPECIES LIST: ANIMALS

Species List: Animals

This list reports only animals observed by this study. Other species may have been overlooked or undetectable due to their activity patterns or weather conditions. [†= *special status species,* * = non-native species, sp. = identified only to genus, spp. = two or more species, cf = compares favorably with]

REPTILIA	**REPTILES**
Phrynosomatidae	**Spiny Lizards**
cf. *Uta stansburiana*	common side-blotched lizard
AVES	**BIRDS**
Trochilidae	**Hummingbirds**
†Calypte costae	Costa's hummingbird
Phalacrocoracidae	**Cormorants**
†Nannopterum auritum	double-crested cormorant
Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Accipitridae	**Hawks, Kites, Eagles, and Allies**
Buteo jamaicensis	red-tailed hawk
Corvidae	**Crows and Jays**
Corvus corax	common raven
Regulidae	**Kinglets**
Corthylio calendula	ruby-crowned kinglet
Polioptilidae	**Gnatcatchers and Gnatwrens**
Polioptila caerulea	blue-gray gnatcatcher
†Polioptila melanura	black-tailed gnatcatcher
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Fringillidae	**Fringilline & Cardueline Finches and Allies**
Haemorhous mexicanus	house finch
MAMMALIA	**MAMMALS**
Rodentia	**Rodents**
Ammospermophilus leucurus	white-tailed antelope ground squirrel
Cervidae	**Deer, Elk and Relatives**
Odocoileus hemionus	mule deer

APPENDIX 4

PHOTOGRAPHIC EXHIBITS

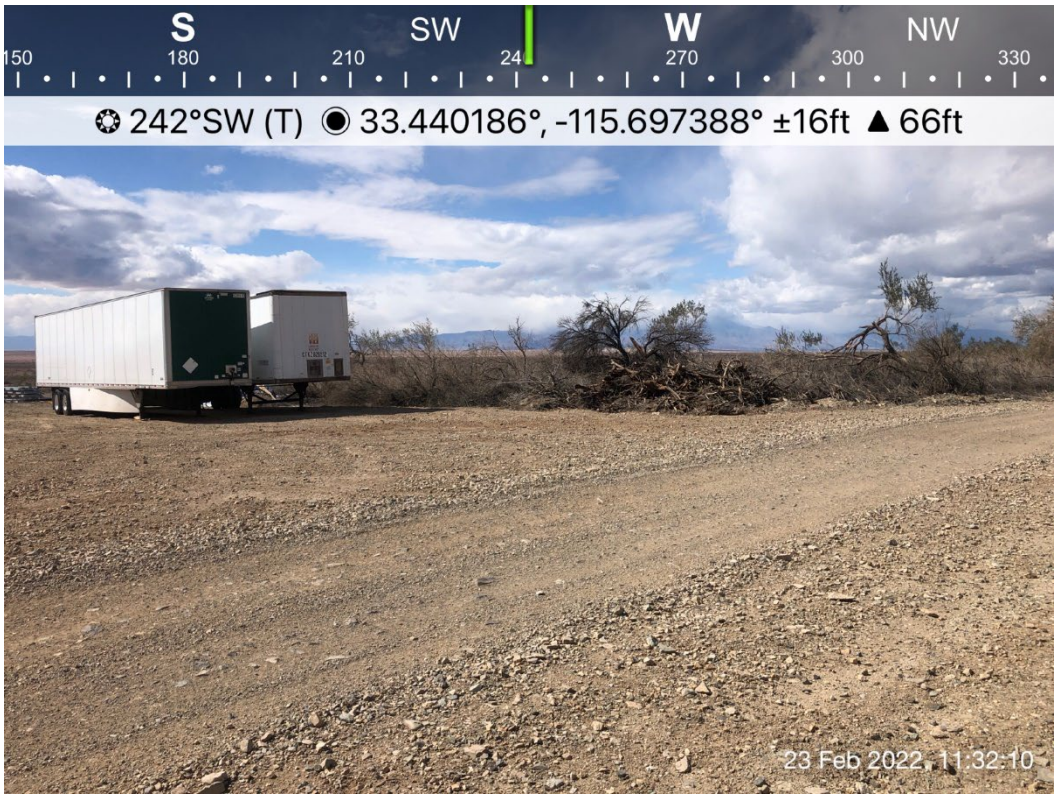

Photo 1. Onsite impacts.

Photo 2. Offsite impacts.

Photo 3. Old pipe infrastructure (center right), eastern site. Dead & dying desert wash woodland.

Photo 4. View of former pond from southwest project terminus. Note dead marsh vegetation.

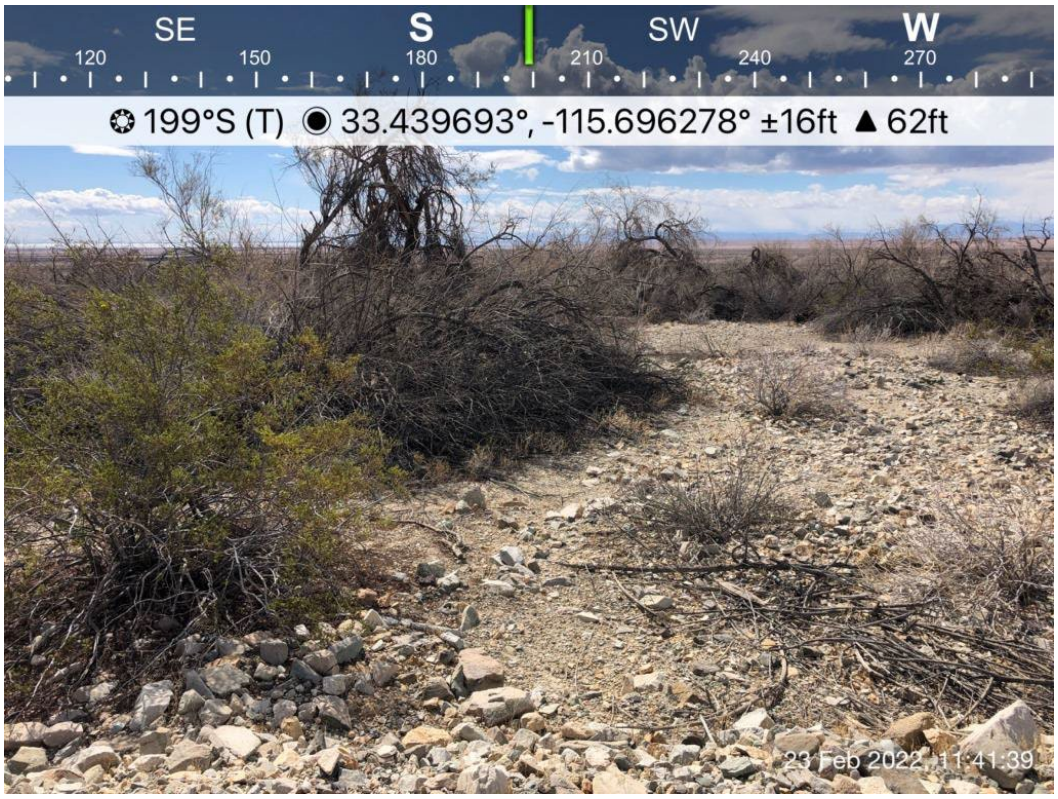

Photo 5. Elements of desert scrub in foreground, dead and dying desert wash woodland elsewhere.

Photo 6. Desert scrub at east end of project site.

APPENDIX 5

COACHELLA VALLEY NATIVE PLANTS RECOMMENDED FOR LANDSCAPING

COACHELLA VALLEY NATIVE PLANTS RECOMMENDED FOR LANDSCAPING

Note: Many of the following scientific names have undergone taxonomic changes in recent years. Refer to Jepson Flora Project (2022).

BOTANICAL NAME	COMMON NAME
Trees	
Washingtonia filifera	California fan palm
Cercidium floridum	blue palo verde
Chilopsis linearis	desert willow
Olneya tesota	ironwood tree
Prosopis glandulosa var. torreyana	honey mesquite
Shrubs	
Acacia greggii	cat's claw acacia
Ambrosia dumosa	burro bush
Atriplex canescens	four wing saltbush
Atriplex lentiformis	quailbush
Atriplex polycarpa	cattle spinach
Baccharis sergiloides	squaw water-weed
Bebia juncea	sweet bush
Cassia (Senna) covesii	desert senna
Condalia parryi	crucilllo
Crossosoma bigelovii	crossosoma
Dalea emoryi	dye weed
Dalea (Psorothamnus) schottii	indigo bush
Datura meteloides	jimson weed
Encelia farinosa	brittle bush
Ephedra aspera	Mormon tea
Eriogonum fasciculatum	California buckwheat
Eriogonum wrightii membranaceum	Wright's buckwheat
Fagonia laevis	no common name
Gutierrezia sarothrae	matchweed
Haplopappus acradenius	goldenbush
Hibiscus denudatus	desert hibiscus
Hoffmannseggia microphylla	rush pea
Hymenoclea salsola	cheesebush
Hyptis emoryi	desert lavender
Isomeris arborea	bladder pod
Juniperus californica	California juniper
Krameria grayi	ratany
Krameria parvifolia	little-leaved ratany
Larrea tridentata	creosote bush
Lotus rigidus	desert rock pea

BOTANICAL NAME	COMMON NAME
Lycium andersonii	box thorn
Petalonyx linearis	long-leaved sandpaper plant
Petalonyx thurberi	sandpaper plant
Peucephyllum schottii	pygmy cedar
Prunus fremontii	desert apricot
Rhus ovata	sugar-bush
Salazaria mexicana	paper-bag bush
Salvia apiana	white sage
Salvia eremostachya	Santa Rosa sage
Salvia vaseyi	wand sage
Simmondsia chinensis	jojoba
Sphaeralcia ambigua	desert mallow
Sphaeralcia ambigua rosacea	apricot mallow
Trixis californica	trixis
Zauschneria californica	California fuchsia
Groundcovers	
Mirabilis bigelovii	wishbone bush
Mirabilis tenuiloba	white four o'clock
Vines	
Vitis girdiana	desert grape
Accent	
Muhlenbergia rigens	deer grass
Herbaceous Perennials	
Adiantum capillus-veneris	maiden-hair fern (w)
Carex alma	sedge (w)
Dalea parryi	Parry dalea (w)
Eleocharis montevidensis	spike rush (w)
Equisetum laevigatum	horsetail (w)
Juncus bufonis	toad rush (w)
Juncus effuses	juncus (w)
Juncus macrophyllus	juncus (w)
Juncus mexicanus	Mexican rush (w)
Juncus xiphioides	juncus (w)
Notholaena parryi	Parry cloak fern
Pallaea mucronata	bird-foot fern
Cacti and Succulents	
Agave deserti	desert agave
Asclepias albicans	desert milkweed
Asclepias subulata	ajamete

BOTANICAL NAME	COMMON NAME
Dudleya arizonica	live-forever
Dudleya saxosa	rock dudleya
Echinocereus engelmannii	calico hedgehog cactus
Ferocactus acanthodes	barrel cactus
Fouquieria splendens	ocotillo
Mamillaria dioica	nipple cactus
Mamillaria tetrancistra	corkseed cactus
Nolina parryi	Parry nolina
Opuntia acanthocarpa	stag-horn cholla
Opuntia bigelovii	teddy bear or jumping cholla
Opuntia basilaris	beavertail cactus
Opuntia echinocarpa	silver or golden cholla
Opuntia ramosissima	pencil cholla
Yucca schidigera	Mojave yucca, Spanish dagger
Yucca whipplei	our Lord's candle

APPENDIX 6

PROHIBITED INVASIVE ORNAMENTAL PLANTS

PROHIBITED INVASIVE ORNAMENTAL PLANTS

BOTANICAL NAME	COMMON NAME
Acacia spp. (all species except *A. greggii*)	acacia (all species except native catclaw acacia)
Arundo donax[1]	giant reed
Atriplex semibaccata[1]	Australian saltbush
Avena barbata	slender wild oat
Avena fatua	wild oat
Brassica tournefortii[2]	African or Saharan mustard
Bromus madritensis ssp. *rubens*[1]	red brome
Bromus tectorum[2]	cheat grass
Cortaderia jubata [syn.*C. atacamensis*]	Jubata crass or Andean pampas grass
Cortaderia dioica [syn. C. selloana]	pampas grass
Descurainia sophia	tansy mustard
Eichhornia crassipes	water hyacinth
Elaegnus angustifolia	Russian olive
Foeniculum vulgare	sweet fennel
Hirschfeldia incana	short-pod mustard
Lepidium latifolium	perennial pepperweed
Lolium multiflorum	Italian ryegrass
Nerium oleander	oleander
Nicotiana glauca[1]	tree tobacco
Oenothera berlandieri[3]	Mexican evening primrose
Olea europea	European olive tree
Parkinsonia aculeata[1]	Mexican palo verde
Pennisetum clandestinum	Kikuyu grass
Pennisetum setaceum[2]	fountain grass
Phoenix canariensis[3]	Canary Island date palm
Phoenix dactylifera[3]	date palm
Ricinus communis[1]	castorbean
Salsola tragus[1]	Russian thistle
Schinus molle	Peruvian pepper tree
Schinus terebinthifolius	Brazilian pepper tree
Schismus arabicus	Mediterranean grass
Schismus barbatus[2]	Saharan grass
Stipa capensis[2]	no common name
Tamarix spp. (all species)[2]	tamarisk or salt cedar
Taeniatherum caput-medusae	Medusa-head
Tribulus terrestris	puncturevine
Vinca major	periwinkle
Washingtonia robusta	Mexican fan palm
Yucca gloriosa[3]	Spanish dagger

[1]indicates species known to be invasive in the Plan Area
[2] indicates particularly troublesome invasive species
[3] indicates species not on CalEPPC October 1999 "Exotic Pest Plants of Greatest Ecological Concern