

**PUTTIN' AROUND BORREGO  
Miniature Golf Course  
426 Palm Canyon Drive  
Borrego Springs, California**

**PDS2021-STP-21-016**

**BIOLOGICAL RESOURCE  
LETTER REPORT**

APN: 141-384-14-00  
UTM: [NAD 27]: 11-S: 556,000mE; 3,680,000mN

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PSBS #W586

July 6, 2022



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**Summary**

Pacific Southwest Biological Services, Inc., (Pacific Southwest) conducted a biological assessment of the 1.86-acre proposed project site, located on the north side of Palm Canyon Drive, east of Hoberg Road, on the west side of Borrego Valley in the unincorporated community of Borrego Springs, San Diego County, California. The proposed project is for the development of a miniature golf course facility (Figure 3). The assessment was performed to identify biological resources and sensitive species that are present and would be impacted by development. The property is surrounded by undeveloped, but subdivided, lands and large residential lots with limited housing. To the north a trail easement runs along the northern boundary of the site.

The survey identified three vegetation types onsite including Sonoran Creosote Bush Scrub, a common and widespread vegetation type that can support special-status species, Sonoran Mixed Woody Scrub, associated with the onsite drainage, and Urban/Developed land associated with the adjacent roadway and trail. Implementation of the proposed project would directly impact 1.09 acres of Sonoran Creosote Bush Scrub and 0.03 acres of Sonoran mixed woody scrub. These impacts are considered significant under the California Environmental Quality Act (CEQA) and the County's Guidelines for Determining Significance for Biological Resources. However, this significant impact would be reduced to a less than significant level with the implementation of mitigation.

No special status plant species were observed on the project site and one special status wildlife species, black-tailed jackrabbit (*Lepus californicus bennetti*), was observed on the project site. The site does not appear to have soil conditions that would support the Flat-tailed Horned Lizard (*Phrynosoma mcalli*), a California Species of Special Concern, which typically requires wind-blown sandy soils as opposed to the water-deposited soils that occur in the lower portions of a large bajada where the site is located. Similarly, no burrows that would support the Western Burrowing Owl (*Speotyto (Athene) cunicularia*) were observed on the site. Impacts to black-tailed jackrabbit would be considered significant under CEQA and the County's Guidelines for Determining Significance for Biological Resources. However, the significant impact would be reduced to a less than significant level with the implementation of mitigation.

The project site contains a drainage course that is not considered a jurisdictional wetland or waterway. However, this feature will be avoided by project design. Since the site contains shrubs that could be used by nesting migratory birds protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code, impacts could occur to such species if unsupervised clearing or construction activities take place on the site between 1 February and 31 August. A mitigation measure will be included to avoid such significant impacts.

## **Introduction, Project Description, Location, Setting**

A general biological assessment of the 1.86-acre parcel, located on the west side of Borrego Valley, was performed by Pacific Southwest Biological Services, Inc. at the request of Mr. Joe Carll, the applicant. The purpose of the survey was to document biological resources and/or anysensitive species occurring on the project site. This report summarizes the current biological conditions of the property, the results of the surveys, includes an impact analysis, and proposes mitigation measures. This report provides the project applicant, resource agencies, and the public with current biological data to satisfy the review of the project under the California Environmental Quality Act (CEQA). It is anticipated that the information herein will be available for public agency review.

The project site lies in private lands of the County's draft East County Multiple Species Conservation Program (ECMSCP), which is not yet approved. The Plan exists as an unapproved, 2008 draft plan.

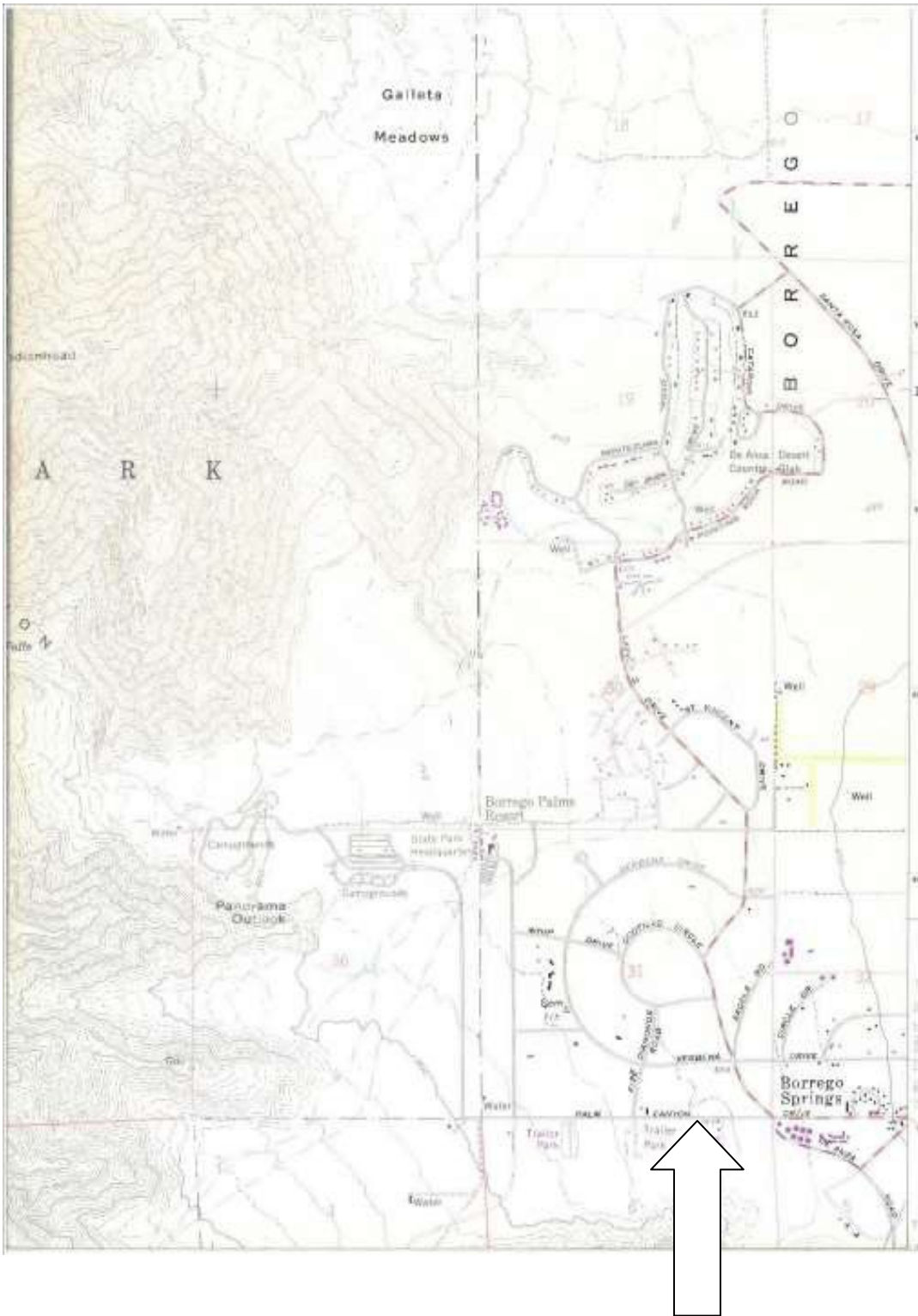
The proposed project is the development of a public recreational miniature golf course on the southeastern 60% of the 1.86-acre site. The Anza-Borrego Desert State Park boundary lies approximately a half mile to the west of the site. The project includes a triangular shaped FEMA floodway overlay along the northwest side of the ownership. This overlay includes approximately 20,000 square feet or about 0.74 acre. This area, although not directly impacted by the project, would be counted as a project impact area since no open space easement is proposed for this northwestern area. The project does not propose any offsite impacts.

The project site is located on the north side of Palm Canyon Drive, the main commercial street at the western end of the unincorporated community of Borrego Springs, San Diego County, California (Figures 1 & 2). Geographically, the site is at the mouth of Hellhole Canyon, on a broad, gently sloping bajada (a broad, sloping depositional deposit caused by the coalescing of alluvial fans). The main thread of the drainage of Hellhole Canyon runs half a mile to the northwest of the parcel; however, a small flowage way crosses the subject site. The map location of the site is along the western boundary of Section 31, Township 10 South, Range 6 East, of the San Bernardino Base and Meridian; USGS 7.5' Borrego Palm Canyon, California quadrangle (UTM [NAD 27]: 11-S: 556,000mE; 3,680,000mN). Elevational range of the property is from 755 feet to 795 feet. Land use surrounding the site includes a private resort facility which lies to the distant north and residential lots, only a few of which have been developed, to the east.

Access to the site is from Montezuma Valley Road (County S22) to its intersection with Palm Canyon Drive (a continuation of S22), then east for half a mile.

Prior to the field investigation, Pacific Southwest searched the California Department of Fish and Game's (CDFG) Natural Diversity Data Base (CNDDDB) for the USGS 7.5' Borrego Palm Canyon and Borrego Sink, California 7.5' USGS quadrangles. This search revealed several federally- and state-listed species or MSCP covered species that have been reported within these quadrangles. Pacific Southwest reviewed a recent aerial photograph (via Google Earth-2020) for potential drainage patterns and vegetation types. Pacific Southwest also reviewed a soil survey map (Bowman 1973) of the project site and vicinity for soil types, including hydric soils.

Figure 1. Vicinity Map (Borrego Palm Canyon U.S. G. S. 7.5 “ quadrangle)



Soils mapped for the site are Rositas loamy coarse sand (RsC) (Bowman 1973). Surficial geology is recent alluvium (Rogers 1965).

The initial field survey of botanical resources of the subject property was performed on 26 October 2021. The on-foot survey covered all aspects of the parcel and was performed by R. Mitchel Beauchamp. Lists of observed plants and animals (Appendices 1 & 2) were made and vegetation associations were recorded during the field survey on 1"=200' scale topographic map of the site (Figure 3). The survey was performed at 12:49 PM with an air temperature of 72°F and clear skies and no breeze. Species detected but not directly observed were identified through indirect signs (i.e., scat, tracks, calls, nests, and burrows, etc.).

A Spring assessment of the site was performed on 16 March 2022 from 1500 to 1545 with clear skies and an air temperature of 82°F. A third assessment for Flat-tailed Horned Lizard (*Phrynosoma mcallii*) was made on 29 June 2022, per a request from the California Department of Fish and Wildlife (CDFW).

The property area is sufficiently small so that the entire area could be covered during the one visit. The lack of rainfall resulted in minimal growth of the annual flora, so only meager plant remains were available for identification.

Figure 2. Site Location Detail

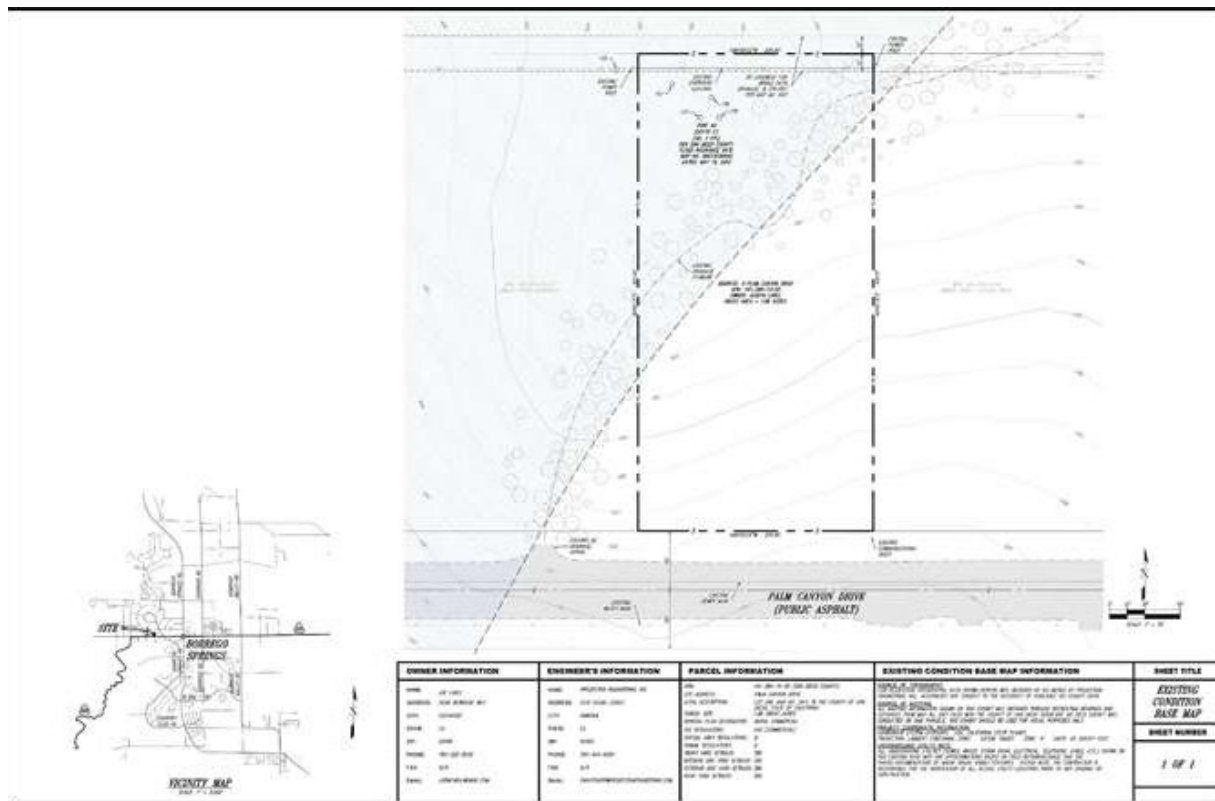
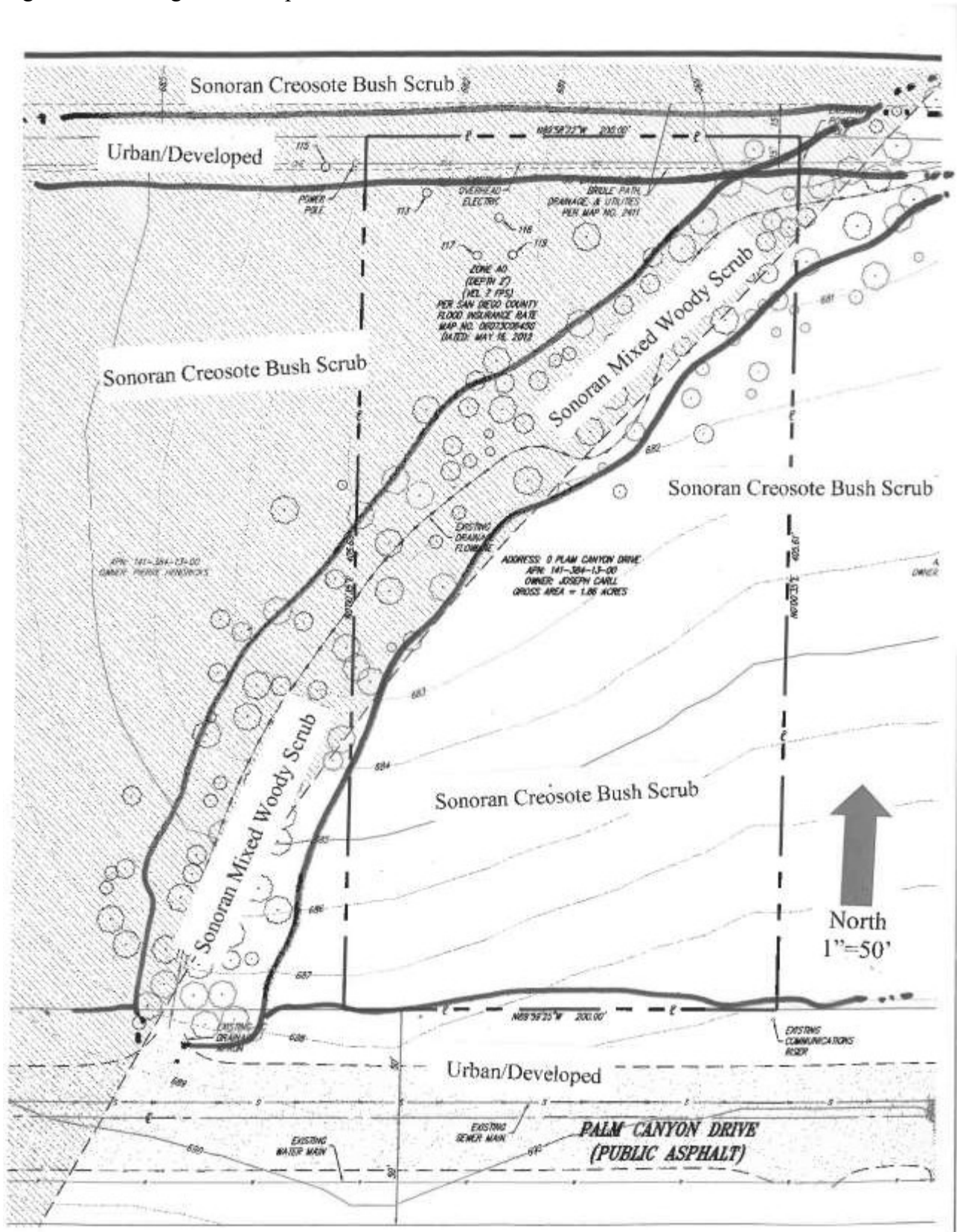




Figure 4. Site Vegetation Map





Scientific nomenclature used in this report is from the following standard references: Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986), as modified by Oberbauer (1996); vascular plants (Beauchamp 1986, Hickman 1993, Munz 1974); vegetation communities (Holland 1986, Oberbauer 1996); wildlife habitats (Mayer et al. 1988); birds (American Ornithologists' Union 1998 and 2007); and mammals (Jones *et al.* 1992).

## **Regional Context**

The 1.86-acre project site is located within the County's draft East County Multiple Species Conservation Program (ECMSCP) in land designated as Agriculture or Natural Upland outside the Focused Conservation Area (FCA).

## **Habitats/Vegetation Communities**

The survey identified three vegetation/habitat types on the project site and the immediate vicinity of the project: Urban/Developed, Sonoran Creosote Bush Scrub, and Sonoran Mixed Woody Scrub (Figure 4). The vegetation/habitat types and acreage occurring on the property are discussed below, with appropriate Holland (1986) element codes.

### Urban/Developed (#12000) – 0.05 acre

Areas along the periphery of the site include verge of Palm Canyon Drive and the powerline/horse trail along the northern site boundary.

### Sonoran Creosote Bush Scrub (#33100) – 1.49 acres

Sonoran Creosote Bush Scrub constitutes the only native vegetation occurring on the site. The presence of Creosotebush (*Larrea tridentata*) is the basis for this classification but the dominance of this shrub is as a minor constituent, equal to Indigo Bush (*Psoralea schottii*). Other elements of this vegetation include White Burrobush (*Hymenoclea salsola*) and Burrobush (*Ambrosia dumosa*). A few Ocotillos (*Fouquieria splendens*) occur on the parcel as an isolated stand.

Sonoran Creosote Bush Scrub vegetation is common and widespread in the Colorado Desert region of California. This vegetation covers approximately 12,625 km<sup>2</sup> (3,119,705 ac) in California, or approximately 3% of the area of California (Davis, et al. 1998). No data could be found for the areal extent of Sonoran Creosote Bush Scrub in San Diego County. However, this vegetation type constitutes much of the desert lowland of eastern San Diego County, with most of the developed portions of this vegetation type existing in the Borrego Valley, and smaller, isolated desert residential communities.

### Sonoran Mixed Woody Scrub (#33210) – 0.32 acre

The scouring affect during storm flows in the drainage results in the development of several larger shrubs as well as the augmented growth of other shrubs found across the site. These include a single Ironwood Tree (*Olneya tesota*) and introduced Palo Verde Trees (*Parkensonia aculeata*).



## **Plants**

The transmontane region of San Diego County is a region of mixing between coastal and desert floristic elements. Additionally, the western edge of the Colorado Desert is known to serve as a refugium of plants species and associations more widespread in geologic time (Stebbins & Major 1965). The subject property, occurring at the lower end of the Hellhole Canyon alluvial fan, is largely dominated by Creosote Bush Scrub that is heavily infested by non-native annuals, largely Sahara Mustard (*Brassica tournefortii*) and annual grasses (*Bronus Vulpia*).

The observed flora on the property during the Fall survey is poorly represented by native annuals due to the poor rainfall prior to the survey. Additional species were observed during the Spring survey. A total of forty-three plant species were observed during the surveys (Appendix 1).

Of these, four are non-native and indicate the level of disturbance on the parcel. The flora of the property is representative of the western Colorado Desert. Due to the uniformity of the site associated with the stable Hellhole Canyon alluvial fan formation, none of the endemics associated with the adjacent mountain slopes are likely to occur on the site. Similarly, the lack of aeolian sands on the site precludes many other endemic species known to occur elsewhere in the Borrego Valley.

## **Special Status Plant Species**

No special status species were observed during the Fall 2021 or Spring 2022 site assessments. Appendix 3 lists those plant species identified in the CNDDDB search and the Sensitive Species List received by the County, their conservation status, their typical habitat requirements, and potential for occurrence in the study area. Three species have a moderate probability of occurrence on the site, but presence could not be determined because they are annual plants not visible during the fall survey: Winged Cryptantha (*Cryptantha holoptera*) (a CNPS List 4, County List D species), Palmer's Lyrepod (*Lyrocarpa coulteri* var. *palmeri*) (List D), and Baja California Comb Bur (*Pectocarya peninsularis*) (List D). Assessment of the site in the spring 2022 did not encounter these taxa.

An additional species, Bristly Scaleseed (*Spermolepis echinata*) (County List B), has been reported in the Borrego Palm Canyon 7.5' topographic quadrangle. However, review of the documented records for this species in San Diego County indicates that it typically occurs in sandy habitats in canyon bottoms, sometimes along the bottoms of narrow, rocky canyons, as indicated by this excerpt from PSBS (1994): "*Habitat: This small celery-like annual grows on rocky, desert terrain or on sandy flats. Known Sites: Spermolepis was observed north of Plum Canyon in Anza-Borrego State Park growing at the foot of a rocky slope in relatively open, Sonoran Desert scrub. It is reported from south of Vallecitos Stage Station, as well as in lower Box Canyon near S-2.*" Additionally, the California State Park and Recreation Department Resource Ecologist (K. Marsden, pers. comm.), whose responsibility includes the Borrego Valley, also indicates the species occurs in Plum Canyon, a narrow rocky canyon with a sandy bottom channel and is unlikely to occur on the open bajada sands of the proposed project site. Thus, this species is excluded from likely occurrence on the project site.

The California Native Plant Society (CNPS) has five lists in an order to categorize degrees of concern, from List 1A, 1B, 2, 3 and 4. List 4 is defined as “*Plants of limited distribution—a watch list...of limited distribution or infrequent throughout a broader area in California, and their vulnerability or susceptibility to threat appears relatively low at this time. While we cannot call these plants ‘rare’ from a statewide perspective, they are uncommon enough that their status should be monitored regularly.*” (CNPS 2001). Two of the remaining plants of concern are on CNPS List 4: Winged Cryptantha and Palmer’s Lyrepod, while Baja California Comb Bur has no CNPS, state or federal status. Although Winged Cryptantha, Palmer’s Lyrepod, and Baja California Comb Bur are on the County List D, they do not meet the CEQA definition of endangered species, and thus, they would not meet the definition of Endangered, Rare, or Threatened species under Section 15380 of the CEQA Guidelines.

## **Wildlife**

Winter and early spring wildlife use of the site was extremely limited, particularly in prior years of low rainfall. The field visits revealed 9 wildlife species (Appendix 2). The wildlife diversity of the site, if sampled over a longer time period, including spring and fall migration, would have revealed more species. The relatively homogeneous vegetation on the site, with a few ocotillos, and lack of riparian habitat or other complex micro-habitats probably limit the wildlife diversity of the site compared to sites with greater habitat diversity (see Massey and Evans, 1994). Wildlife encountered during the initial site assessment was only by way of tracks and burrows. The burrows appeared to be those of Kangaroo Rats (*Dipodomys sp.*). The March 2022 visit revealed a Greater Roadrunner (*Geococcyx californianus*) in the area. The exposed nature of the site, the nearby roadway, and housing to the north and south contribute to this observation.

## **Special Status Wildlife Species**

Appendix 4 lists 25 wildlife species identified in the California Natural Diversity Data Base (CNDDDB) search and the Sensitive Species List received by the County, their conservation status, their typical habitat requirements, and potential for occurrence in the study area. Of the 25 species reviewed, all but five have a low or unlikely probability of occurrence on the site because of site conditions.

A survey for Flat-tailed Horned Lizard (*Phrynosoma mcallii*) was completed on June 29, 2022, from 1739-1815. This species is only surface-active during the spring and summer months but is unlikely to occur on the site because it requires soft sand and the site only has relatively hard packed sand with little friability. No sign of the reptile, including characteristic scat or its native prey Harvester Ants and their nest remains, were noted during the surveys on the site. Local biologists associated with the Anza Borrego Desert Park have also indicated the species is unlikely to occur on the site.

A conversation with a former California Parks Department resource ecologist (P. Jorgensen, pers. comm.) revealed that the Burrowing Owl (*Speotyto Athene cucularia*) has been observed within half a mile of the site at least once, some years ago (details and date of the sighting are unavailable). The field inspection failed to identify the species on the site or burrow habitats that would support the bird. At present, the site does not have extensive rodent burrows of sufficient size to support Burrowing Owls. It is likely that the incidental observation of the Burrowing Owl in the past was a wintering bird that did not become resident, not an uncommon occurrence in the Borrego Valley area.

Two of the 25 species were observed, including the black-tailed jackrabbit (*Lepus californicus bennettii*), a County Group 2 wildlife species, and Coyote (*Canis latrans*). Both species are common in the region. Three wildlife species are of moderate probability to occur on the site: Loggerhead Shrike (*Lanius ludovicianus*), Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*), and Pallid San Diego Pocket Mouse (*Chaetodipus fallax pallidus*). The Loggerhead Shrike, a relatively common species in the Anza Borrego desert area, undoubtedly occurs on the site at times, but probably does not nest there because of the absence of suitable nesting trees. There are no roosting areas on the site for the Pocketed Free-tailed Bat, a species which may forage over the site but typically uses caves, crevices in cliffs, or under roof tiles of buildings as day-roosting sites. The Pallid Sand Diego Pocket Mouse prefers fairly friable sandy soil for easy burrowing. Much of the site contains fairly hard packed gravelly soils, although the pocket mouse has been collected nearby and may occur on the site. Note that the Coyote (scat observed on the site) is not considered a sensitive species but is an indicator of a level of ecosystem function.

The site does contain shrubs that could serve as nesting sites for native birds protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.

### **Jurisdictional Wetlands and Waterways**

The site does not contain any wetlands or jurisdictional waters. The drainage feature is a flow way with very limited 3'-6" high bank and 2-5 feet wide bed of sand. The site is on a stable alluvial fan and the present storm flow channel has limited flowage-associated shrubs and trees as discussed above. Storm runoff moves across the site as sheet flow, based upon the presence of some surface rivulets at the southeastern corner of the parcel, as well as through the flowage channel. The proposed project design avoids this drainage feature. Since drainages are often a sensitive biological resource, the status of the on-site drainage is addressed below, based principally on the Resource Protection Ordinance (RPO) Section 86.602.

"Wetland":

- 1) Lands having one or more of the following attributes are "wetlands":
  - (aa) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);  
No native wetland species occur on the site.
  - (ba) The substratum is predominantly undrained hydric soil;  
No hydric soils occur on the site
  - (ca) An ephemeral or perennial stream is present whose substratum is predominately non- soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

Bed and bank characteristic indicates that the drainage has storm flow following normal rainfall events.

- 2) Notwithstanding paragraph (1) above, the following shall not be considered "Wetlands":
  - (aa) Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Development Services determines that they:
    - (i) Have negligible biological function or value as wetlands; The drainage is confluent with an on-navigable stream.
    - (ii) Are small and geographically isolated from other wetland systems; The drainage communicates with the larger drainage and is isolated at Borrego Sink.
    - (iii) Are not vernal pools; and, No vernal pools or ephemeral ponds occur on the site
    - (iv) Do not have substantial or locally important populations of wetland dependent sensitive species. No wetland-dependent plant species occur in the drainage.

**Other Unique Biological Features/Resources**

The site is located along the lower portion of a major bajada. Drainages leaving desert canyons concentrate surface water flow and may be more attractive to wildlife. However, the project site is near the foot of the bajada. Additionally, Palm Canyon Drive, which is a heavily used road, is located adjacent to the south and reduces wildlife movement from west to east across the site. Residential development is located to the east side of Hoberg Road and the north side of the project site is subdivided with lots suitable for further residential development in the immediate area. Therefore, the site does not appear to support any special wildlife movement resources.

**Significance of Project Impacts and Proposed Mitigation**

**Vegetation Community/Habitat**

Table 1 summarizes the impacts to the vegetation communities from the proposed project (Figure 3).

Table 1. Summary of Existing, On-site Vegetation Type and Potential Impacts within Project Footprint (acres)

Vegetation Type	Existing (acres)	Directly Impacted (acres)	Mitigation Ratio	Mitigation Required
Sonoran Creosote Bush Scrub	1.49	1.09	1:1	1.49
Sonoran Mixed Woody Scrub	0.32	0.03	1:1	0.32
Urban / Developed	0.05	0.0	N/A	N/A
Total	1.86	1.12	--	1.81

Implementation of the project would directly impact 1.12-acres. An area of 0.74 acre is designated as flood area (and archaeological) conservation easement containing Sonoran Creosote Bush Scrub and Sonoran Mixed Woody Scrub. This area, although not directly impacted by the project, is not to be conserved as open space for conservations purposes, so it considered as impacted by County regulations. The loss of 1.81 acres of Sonoran Scrub is considered significant under CEQA because the habitat meets the definition of a sensitive habitat under CEQA and County Guidelines.

### Mitigation

Table 5 (Habitats and Mitigation Ratios) of the San Diego County Guidelines for Determining Significance of Biological Resources (September 26, 2006), indicates that the mitigation ratio of impacts to Sonoran Creosote Bush Scrub and Sonoran Mixed Woody Scrub is 1:1.

#### BIO-1 Impacts to Sonoran Creosote Bush Scrub

Direct impacts to the loss of 1.12 acres of Sonoran Scrub habitat can be mitigated by conditioning the project to require, prior to issuance of a grading permit, or any other development-related permit, acquisition of credits for 1.81 acres of land or credit for Creosote Bush Scrub through the Anza-Borrego Desert Foundation to support acquisition of similar lands under the control of the natural resource management function of Anza-Borrego Desert State Park. Such mitigation has been previously approved by the Director of the Department of Planning & Development Services.

### Conclusion

The loss of 1.12 acres of Creosote Bush Scrub (Sonoran Scrub) is considered significant under CEQA because of its native habitat values and ability to support special status species. Indirect loss of 0.74 acre of Sonoran Creosote Bush Scrub and Sonoran Mixed Woody Scrub by no imposition of an open space easement is similarly considered as an impact to be mitigated. These impacts would be reduced to a less than significant level if mitigation measure BIO-1 is made a condition of project approval because it would set aside and manage lands elsewhere for conservation purposes in perpetuity to compensate for the loss of the project lands.

### **Special Status Species**

Based on a review of the on-site habitats and a list of special status species recorded for the general project vicinity, no special status plant species have been identified on the site. One special status wildlife species, Black-tailed Jackrabbit, has been identified on the site. Three special status plant species, on the County List D, may occur on the site, but sufficient rainfall had not occurred on the site to determine presence in the fall 2021 assessment: Winged Cryptantha, Palmer's Lyrepod, and Baja California Comb Bur. The subsequent spring 2022 assessment did not encounter these taxa either. However, these three species do not meet the CEQA Guidelines Section 15380 definition of endangered, rare, or threatened species and their presence or absence does not constitute a significant impact under CEQA.

The remaining special status plant, Bristly Scaleshed, does meet the county and the CEQA Guidelines definition of an endangered, rare, or threatened species, but does not occur on the site because it is typically found in sandy soils in rocky canyons, and not in the sandy bajada soils found on the site.

The site does contain shrubs and trees that could be used by nesting migratory birds protected by the Migratory Bird Treaty Act of 1918 and the California Fish and Game Code. If clearing or construction takes place during the spring/summer months (1 February through 31 August), nesting birds may be impacted by direct impacts to nesting sites or indirectly by noise, causing abandonment of nesting sites. This is considered a significant impact under CEQA unless reduced to a less-than-significant level by application of the recommended mitigation measure.

### Mitigation

#### BIO-1 Impacts to Black-tailed Jackrabbit

For low-level sensitive species, including County Group 2 wildlife species, mitigation is completed through habitat-based mitigation. Therefore, impacts to Black-tailed Jackrabbit will be mitigated through the preservation of 1.81 acres of land or credit for Creosote Bush Scrub through the Anza-Borrego Desert Foundation.

#### BIO-2: Nesting Migratory Birds

Impacts to nesting migratory birds can be mitigated by conditioning the grading plan to require a pre-construction survey by a qualified ornithologist of the proposed project area for nesting birds, if grubbing, clearing, or construction occurs from 1 February through 31 August. Any active nests located would be flagged and that area protected from impacts until the birds have fledged.

### Conclusion

Project clearing and grading may have a significant effect on black-tailed jackrabbit and nesting migratory birds protected by federal and state regulations. These impacts would be reduced to a less than significant level by habitat-based mitigation and preconstruction nesting bird surveys.

### **Jurisdictional Wetlands and Waterways**

The site does not contain any jurisdictional wetlands or waterways. Therefore, no impact would occur and no mitigation is required.

### **Other Unique Biological Features/Resources**

The site does not contain any other unique biological features or resources that would be impacted by implementation of the project. Therefore, no impact would occur and no mitigation is required.

**Cumulative Impacts**

Past and pending discretionary projects in the Borrego Valley area were researched from County files. Borrego Valley was chosen as an appropriate area for the cumulative impact analysis because it is the primary area in San Diego County where sites proposed for development would affect desert plant communities. Development proposals in other small County desert communities of private lands appear to be relatively infrequent. Table 2 lists these projects, their size, number of residential units, plant community/habitat types, and notes about each project. Specific project information was not readily available in County files regarding the specific areas of existing or impacted plant communities, and/or mitigation requirements. Projects with pending environmental review typically do not have biological assessments available in the public files. Table 2 indicates that nine projects, totaling approximately 1,107 acres and 1,267 residential or RV units have been proposed or approved in Borrego Valley.

Various habitats have been reported for these projects, including Creosote Bush Scrub, Tamarisk Woodland, relictual dune, Sonoran Wash Scrub, Desert Saltbush Scrub, and various desert riparian-associated habitats. At least 142.82 acres of Creosote Bush Scrub habitats exist on these projects, although the total amounts of impacts to this habitat cannot be determined. The Borrego 50 project would impact approximately 46.46 acres of this habitat. As stated above, Creosote Bush Scrub is abundant and widespread in southeastern California, occupying approximately 3,119,705 acres (3% of the state area) and occupies much of the desert lowlands of eastern San Diego County. It appears that regional impacts to Creosote Bush Scrub, ranging from about 1,000 to 200 acres (potential range of impacts, based on Table 2) in San Diego County would not constitute a significant impact on this plant community. Furthermore, the project’s contribution to this loss would not constitute a substantial contribution as the project will mitigate for impacts to a less than significant level.

The actively processing Ram’s Hill Project lies several miles east of the proposed project. Water allocation is the major issue with that project and the minimal water use proposed by the miniature golf course is not relevant to this issue.

**Conclusion**

Because it is apparent that there are no past or present regionally significant cumulative losses of Creosote Bush Scrub habitat in San Diego County, the loss of acres of this habitat proposed by the proposed project would not constitute a substantial contribution to a significant cumulative impact to this habitat.

Table 2. Borrego Valley Approved and Proposed Projects: Reported Vegetation Community Types

Project No	Project Name	Size	# Units	Disturbed	Urban/ Developed	Creosote Bush Scrub	Mesquite Bosque	Other Habitats	N o t e
TM 5011	Borrego Spring Springs Country Club	361.08							Part of 1079 ac specific plan; approved 1/3/2003
TM 5130	[Yaqui Pass area]	2.9	19			X			SE-side, Las Casitas, E-Rams Hill; approved 7/17/06
TM 5135	Santa Fe II of Rams Hill	24.73	120		X				Part of Rams Hill; previously graded, adj to golf course; approved 12/14/01



TM 5373, P04 023, SP 04-04	Mesquite Trails Ranch	309.51	480			100	200	Tamarsk Woodland on site	RV lots, E-side, Borrego Valley Rd, by Tilting T Dr; pending environmental review (habitat coverages estimated from 1993 documents); alternate size given is 291 ac
TM 5487	Borrego Springs Country Club Estates	172.7	148			X		Relect dune, seasonal riparian	Located on Borrego Springs Rd, S-Christmas Circle, near Rango Rd; no bio report available; review pending
TM 5511	Hoberg Rd: Borrego 50	50.69	17			50.69			Located on Palm Canyon Dr., Hoberg Rd; includes commercial lot; CEQA review pending
TM 5512	Borrego Springs Senior Condominiums	9	122			9.72			Draft bio report not released
TM 5513	Yaqui Pass Rancho [?]	33.1	72			33.1			Draft bio report not released
TM 5528	Borrego 138 Project	144.32	289	27.9	X			Sonoran Wash Scrub, Desert Saltbush Scrub, wetlands	Palm Canyon Drive, W-Borrego Valley Rd; EIR in prep; bio report unavailable
<b>TOTAL</b>		<b>1108.03</b>	<b>1267</b>			<b>193.51</b>			

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**Attachments**

Appendix 1. Floral Checklist

Appendix 2. Faunal Checklist

Appendix 3. Sensitive Plants Reported from Borrego Palm Canyon/Borrego Sink quadrangles

Appendix 4. Sensitive Animals Reported from Borrego Palm Canyon/Borrego Sink quadrangles

## Appendix 1. Floral Checklist of Species Observed or Anticipated at the Palm Canyon Drive Site

+ indicates additions encountered during the Spring, March 2022 site assessment

### DICOTYLEDONS

#### **Amaranthaceae** - Amaranth Family

*Amaranthus palmeri* S. Watson Palmer's Amaranth

+*Salsola tragus* L. Russian-Thistle

#### **Asteraceae** - Sunflower Family

*Ambrosia dumosa* (Gray) Payne White Bursage

+*Chaenactis carphoclinia* Gray ssp. *carphoclinia*

+*Eriophyllum wallacei* Gray var. *wallacei* Woolly-Daisy

*Hymenoclea salsola* T & G. White Burrobush

*Malacothrix californica* DC. California Malacothrix

*Malacothrix glabrata* Gray Desert Dandelion

+*Rafinesquia neomexicana* Gray Desert Chicory

*Stephanomeria pauciflora* (Torr.) Nutt. Wire-lettuce

*Trichoptilium incisum* A. Gray Desert Yellowhead

#### **Boraginaceae** - Borage Family

*Cryptantha angustifolia* (Torr.) Greene Narrow-leaved Cryptantha

*Cryptantha barbiger* (Gray) Greene Bearded Cryptantha

*Cryptantha maritima* (Greene) Greene Whitehair Cryptantha

*Pectocarya recurvata* Jtn. Recurved Pectocarya

#### **Brassicaceae** - Mustard Family

\**Brassica tournefortii* Gouan Wild Turnip

#### **Cactaceae** - Cactus Family

*Cylindropuntia echinocarpa* (Engelm. & J. Bigelow) F.M. Knuth Silver Cholla

#### **Euphorbiaceae** - Spurge Family

*Chamaesyce melanadenia* (Torrey) Millsp.

*Chamaesyce polycarpa* (Benth.) Millsp. Small-seed Sandmat

*Croton californicus* Muell. Arg. Common Croton

#### **Fabaceae** - Legume Family

*Lupinus arizonicus* (S. Watson) S. Watson Arizona Blue Bonnet

*Psoralea schottii* (Torr.) Barneby Indigo Bush

*Olneya tesota* Gray Ironwood

*Parkinsonia aculeata* L. Mexican Palo Verde

#### **Fouquieriaceae** - Ocotillo Family

*Fouquieria splendens* Engelm. ssp. *splendens* Ocotillo

**Appendix 1. Floral Checklist of Species Observed or Anticipated at the Palm Canyon Drive Site (continued)**

**Geraniaceae** - Geranium Family

\**Erodium cicutarium* (L.) L'Hér. Red-stem Filaree

+*Erodium texanum* Gray Desert Filaree

**Hydrophyllaceae** - Waterleaf Family

*Phacelia crenulata* Greene var. *ambigua* (Jones) J.F. Macbr. Desert Phacelia

+*Phacelia distans* Benth. Wilde Heliotrope

**Krameriaceae** - Rhatany Family

*Krameria grayi* Roser & Painter White Rhatany

**Onagraceae** - Evening-Primrose Family

*Camissonia californica* (Torr. & Gray) Raven False-mustard

+*Camissoniopsis pallida* (Abrams) W.L. Wagner & Hoch

+*Camissoniopsis strigulosa* (R. & M.) Raven

+*Chylismia claviformis* ssp. *peirsonii* (Munz) W.L. Wagner & Hoch.

**Plantaginaceae** - Plantago Family

+*Plantago ovata* var. *fastigiata* Morris

**Polemoniaceae** - Phlox Family

*Eriastrum eremicum* (Jeps.) Mason ssp. *eremicum* Desert Woolly-star

**Polygonaceae** - Buckwheat Family

*Eriogonum inflatum* Torr. & Frém. var. *inflatum* Desert Trumpet

*Eriogonum trichopes* Torr. Little Buckwheat

**Zygophyllaceae** - Caltrop Family

*Larrea tridentata* (DC.) Cov. Creosote Bush

**MONOCOTYLEDONS**

**Poaceae** - Grass Family

*Aristida adscensionis* L. Six-weeks Three-awn

\**Bromus tectorum* L. Cheat Grass

\**Schismus barbatus* (L.) Thell. Mediterranean Schismus

*Vulpia octoflora* (Walter) Rydb. Var. *hirtella* (Piper) Henr. Tufted Fescue

\*Denotes non-native plant taxa

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**Appendix 2. Animals Observed or Detected****COMMON NAME                      SCIENTIFIC NAME****Phrynosomatidae**Side-blotched Lizard                      *Uta stansburiana***BIRDS****Columbidae (Pigeons and Doves)**Mourning Dove                      *Zenaida macroura***Cuculidae - Cuckoos**Greater Roadrunner                      *Geococcyx californianus***Corvidae (Jays, Crows, Ravens, Magpies)**Common Raven                      *Corvus corax***Mimidae (Mockingbirds and Thrashers)**Northern Mockingbird                      *Mimus polyglottos***Fringillidae (Finches)**House Finch                      *Carpodacus mexicanus***MAMMALS****Leporidae (Rabbits and Hares)**Black-tailed Jackrabbit                      *Lepus californicus***Sciuridae (Squirrels, Chipmunks, and Marmots)**White-tailed Antelope Squirrel                      *Ammospermophilus leucurus***Canidae (Foxes, Wolves, and Relatives)**Coyote                      *Canis latrans*

### Appendix 3. Sensitive Plant Taxa

Scientific Name and Common Name	Sensitivity Code & Status Federal/State/CNPS/SDCo	Habitat Preference/ Requirements	Potential to Occur on Site (Obs or L/M/H/Unlikely)
<i>Astragalus crotalariae</i> Salton Milkvetch	None/None/4 (1-1-2)/D	Sonoran Desert Scrub (sandy or gravelly); elevation 60-250 m	Low. Site lacks loose, sandy soil.
<i>Astragalus magdalenae</i> var. <i>peirsonii</i> Peirson's Milk-vetch	FT/SE/1B (2-2-2)/A	Desert dunes, known in CA fr fewer than 20 occurs, not seen in SD Co. in several decades, 55-250 m.	Low. Site lacks loose, sandy soil.
<i>Ayenia compacta</i> Ayenia	None/None/2 (2-1-1)/B	Mojavean Desert Scrub, Sonoran Desert Scrub; esp in sandy & gravelly washes in the desert, dry desert cyns; 150-1095 m.	Unlikely. Site lacks rocky slopes
<i>Bursera microphylla</i> Elephant Tree	None/None/3 (3-1-1) Covered/B	Sonoran Desert Scrub (rocky), desert slopes, 200-700 m.	Unlikely. An obvious plant when present.
<i>Carlwrightia arizonica</i> Arizona Carlwrightia	None/None/2 (3-2-1)/B	Sonoran Desert Scrub (sandy, granitic alluvium) known in CA fr only 1 extent pop. at ABDSP & on adj private land, 285-430 m.	Unlikely. Site lacks rocky slopes.
<i>Chaenactis carphoclinia</i> var. <i>peirsonii</i> Peirson's Pincushion	None/None/1B (2-1-3)/A	Sonoran Desert Scrub (sandy), known only fr desert slopes, eastern Santa Rosa Mtns., 3-500 m.	Low. Site lacks loose, sandy soil on desert slopes.
<i>Cryptantha holoptera</i> Winged Cryptantha	None/None 4 (1-1-2)/D	Desert gravels	Moderate.
<i>Ditaxis serrata</i> var. <i>californica</i> California Ditaxis	None/None/3 (?-2-3)/C	Sonoran Desert Scrub, 30-1000 m.	Unlikely. A conspicuous shrub not overlooked if present.
<i>Galium angustifolium</i> ssp. <i>borregoense</i> Borrego Bedstraw	None/Rare/1B (3-1-3)/A	Sonora Desert Scrub (rocky); elevation 350-1250 meters	Low. A conspicuous herb not overlooked if present, tends to occur in canyons.
<i>Horsfordia newberryi</i> Newberry's Velvet-mallow	None/None/4 (1-1-1)/D	Sonoran Desert Scrub (rocky); 3-800 m.	Unlikely. A conspicuous shrub not overlooked if present.
<i>Lyrocarpa coulteri</i> var. <i>palmeri</i> Palmer's Lyrepod	None/None/4 (1-1-1)/D	Desert canyons	Unlikely. A perennial herb not observed during spring survey.
<i>Mirabilis tenuiloba</i> Slender-lobed Four O'clock	None/None/4 (1-1-1)/D	Desert canyons	Unlikely. Site lacks rocky outcrops.
<i>Pectocarya peninsularis</i> Baja California Bur-comb	None/None/None/ D	Sandy Areas, Borrego Valley	Low. An annual not observed during spring season search.
<i>Selaginella eremophila</i> Desert Spike-Moss	None/None/2 (3-2-1)/B	Sonoran Desert Scrub (gravelly or rocky), desert slopes, 200-900 m. Known in CA fr fewer than 10 occurs.	Unlikely. Site lacks rocky slopes.
<i>Senna covesii</i> Cove's Cassia	None/None/2 (2-2-1)/B	Desert valley areas	Unlikely. A conspicuous shrub not overlooked if present.
<i>Spermolepis infernalis</i> Hell Hole Scaleseed	None/None/2 (3-1-1)/B	Sonoran Desert Scrub (sandy or rocky); 60-1500 m.	Low. Found by T. Oberbauer in 1976 at ABDSP Hdqs and not observed on the site during the spring survey.



### Appendix 4. Sensitive Animal Taxa

Scientific Name and Common Name	Sensitivity Code & Status Federal/State/SDCo	Habitat Preference/ Requirements	Potential to Occur on Site (Obs or L/M/H/Unlikely)
Alkali Skipper <i>Pseudocopaeodes eunus eunus</i>	None/None/Group I	Grassy spots on desert alkali sites.	Unlikely. No alkaline or grassy areas.
Chuckwalla <i>Sauromalus obesus</i>	None/None/None/Group II	Variety of desert woodland & scrub habitats; most often in creosote communities; requires large rock outcrops, boulders, scattered large rocks. Sandy, well-drained soil needed for nesting.	Unlikely. No rocky habitat.
Flat-tailed Horned Lizard <i>Phrynosoma mcalli</i>	None/None/SSC/Group I	Restricted to desert washes & desert flats in central RIV, east SD, & IMP Cos; esp. in fine sand for burrowing to avoid temperature extremes; req. vegetation and ants.	Low. Site soils are sandy but fairly hard-packed; lack wind-blown soils required for this species.
Northern Red Diamond Rattlesnake <i>Crotalus [exsul] ruber ruber</i>	FSC/None/SSC/Group II	Chaparral, woodland, grassland & desert areas, esp in rocky areas & dense vegetation.	Unlikely. Snake has preference for rocky habitats with heavier vegetative cover.
Swainson's Hawk <i>Buteo swainsoni</i> (nesting)	FSC/ST/None/Group I	Breeds in stands w/few trees in juniper-sage flats, riparian areas, & in oak savannah. Req adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low. Not observed.
Ferruginous Hawk <i>Buteo regalis</i>	None/None/SSC/Group I	Winters in so. CA. Forages over agricultural lands, grasslands, scrub.	Low. May forage over site.
Prairie Falcon <i>Falco mexicanus</i> (nesting)	None/None/SSC/Group I	Dry, open terrain, level or hilly, breeding sites on cliffs.	Low. No nesting sites but may forage over site.
Burrowing Owl <i>Athene [Speotyto] cunicularia</i> (burrow sites)	FSC/None/SSC/Group I/ Narrow Endemic	Open dry annual or perennial grasslands, desert & scrublands w/low growing vegetation, uses ground squirrel burrows for nesting.	Low. No suitable burrow habitat on site. Reported as winter visitor to Valley in the past.
Loggerhead Shrike <i>Lanius ludovicianus</i>	FSC/None/SSC/Group I	Open habitats with scattered shrubs & other perches.	Moderate. Species is fairly common in Creosote bush habitats in Colorado Desert.
Le Conte's Thrasher <i>Toxostoma lecontei</i>	None/None/SSC/Group II	Primarily in open desert wash, desert scrub, alkali desert scrub & desert succulent scrub habitats; nests in dense, spiny shrub or densely branched cactus in desert wash habits, usu. 2-8 ft above ground.	Low. County population is small. Could forage on-site but shrubs or cacti adequate for nesting are lacking.

California Leaf-nosed Bat <i>Macrotus californicus</i>	None/None/SSC/Group II	Distribution poorly known; strongly associated w/desert riparian & wash habitats; roost in mine shafts & caves.	Low. Open habitat not preferred by species. No roosting habitat on-site.
Spotted Bat <i>Euderma maculatum</i>	None/None/SSC/Group II	Roosts in cliff crevices.	Unlikely. Unlikely for roosting habitat.
Small-footed Myotis <i>Myotis ciliolabrum</i>	FSC/None/SSC/Group II	Cliffs, rock crevices, possibly in caves & mines. Variety of habitats from sea level to 8900 ft	Low. Prefers mesic habitat and site lacks roosting sites.
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	FSC/None/SSC/Group II	Day roosts include caves & mines but may be found in buildings. Distribution not well known. Prefers mesic habitats.	Low. Prefers mesic habitat and site lacks roosting sites.
Pallid Bat <i>Antrozous pallidus</i>	None/None/SSC/Group II	Caves, tunnels, attics, crevices, variety of other locations. Grassland, shrublands, woodlands, forests, most common in open dry habitats with rocky areas.	Low. Prefers meic habitat and site lacks roosting sites.
Pocketed Free-tailed Bat <i>Nyctinomops femorosaccus</i>	None/None/SSC/Group II	Small colonies in rocky cliffs or crevices. Found in desert scrub, desert riparian, scrublands, pinyon-juniper woodlands. Rocky areas with high cliffs.	Moderate. May forage in the area but no roosting habitat on-site.
Big Free-tailed Bat <i>Nyctinomops macrotis</i>	None/None/SSC/Group II	Small colonies in rocky cliffs or crevices. Found in desert scrub, desert riparian, scrublands, pinyon-juniper woodlands. Rocky areas with high cliffs.	Unlikely. All local records are from urban areas. No roosting habitat on-site.
San Diego Black-tailed Jackrabbit <i>Lepus californicus bennettii</i>	FSC/None/SSC/Group II	Variety of habitats including coastal sage scrub, chaparral, & desert scrub.	Present. Observed on site and region.
Jacumba Little Pocket Mouse <i>Perognathus longimemberis internationalis</i>	None/None/None/Group II	Desert, shrubland/chaparral, grassland/herbaceous	Low. Bulk of known ranges lies well south of the site.
Pallid San Diego Pocket Mouse <i>Chaetodipus fallax pallidus</i>	None/None/None/Group II	Desert scrub habitat.	Moderate. Three records of specimens from locations several miles southeast in similar habitat (UC Berkeley MVZ #182930-32).
Coyote <i>Canis latrans</i>	None/None/None/None	Variety of habitats, including urban canyons	Present. Onsite as evidenced by scat in the region.
American Badger <i>Taxidea taxus</i>	None/None/None/Group II	Uncommon resident throughout the state. Abundant in drier open shrub, forest, & herbaceous habitats with friable soils.	Unlikely. Species unlikely to occur close to high traffic, park, and adjacent residential areas.
Mountain Lion <i>Felis (Puma) concolor</i>	None/None/Protected/Group II	Widespread, uncommon resident ranging from sea level to alpine meadows. Variety of habitats except xeric regions of the deserts.	Low. May occasionally transit the site.

<p>Southern Mule Deer <i>Odocoileus hemionus</i></p>	<p>None/None/Game Species/Group II</p>	<p>Common to abundant w/ wide distribution throughout state. Prefers mosaic of various-aged vegetation habitats, brushy areas &amp; tree thickets important for escape cover.</p>	<p>Low. The site is too open for Mule Deer and lacks grazing opportunities</p>
<p>Peninsular Bighorn Sheep <i>Ovis canadensis</i> <i>cremnobates</i> = <i>O. c.</i> <i>nelsoni</i> dps</p>	<p>FE/ST/None/Group I</p>	<p>Open desert slopes below 4,000 ft fr/ San Gorgonio Pass south into Mexico; esp steep walled canyons &amp; ridges bisected by rocky or sandy washes, w/available water</p>	<p>Low. Generally avoids lower elevation open scrub.</p>

## DEFINITIONS OF SENSITIVITY RATINGS

**California Native Plant Society (CNPS)****List Status**

List 1A	Plants presumed extinct in California. CEQA consideration mandatory
List 1B	Plants rare, threatened, or endangered in California and elsewhere. CEQA consideration mandatory
List 2	Plants rare, threatened, or endangered in California, but more common elsewhere. CEQA consideration mandatory
List 3	Plants about which we need more information - a review list. CEQA consideration strongly recommended
List 4	Plants of limited distribution - a watch list. CEQA consideration strongly recommended

**CNPS R-E-D Code****R (Rarity)**

1	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this
2	Distributed in a limited number of occurrences, occasionally more if each occurrence is small
3	Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported

**E (Endangerment)**

1	Not endangered
2	Endangered in a portion of its range
3	Endangered throughout its range

**D (Distribution)**

1	More or less widespread outside California
2	Rare outside California
3	Endemic to California

**State-Listed/Designated Plants and Animals**

CE	State-listed, endangered
CT	State-listed, threatened
CR	State-listed, rare
CC	Candidate for State listing
CSC	California Special Concern Species (Department of Fish and Game)
CFP	California Fully Protected

**Federally-Listed/Designated Plants and Animals**

FE	Federally-listed, endangered
FT	Federally-listed, threatened
PE	Federally-proposed, endangered
PT	Federally-proposed, threatened
FC	Candidate for Federal listing
BCC	Birds of Conservation Concern
C2*	Threat and/or distribution data are insufficient to support federal listing, but the plant is presumed extinct
C3c	Too widespread and/or not threatened
USFWS 2002 List	U. S. Fish & Wildlife Service Birds of Conservation Concern 2002 List within jurisdiction of Carlsbad FWO "...to identify species, subspecies, and populations of migratory and non-migratory birds in need of additional conservation actions."

**National Audubon Society WatchList**

Red List	Identified by BirdLife International as Threatened or Near-threatened at the global level and by Partners in Flight as Extremely High Priority at the national level
Yellow List	Identified by Partners in Flight at the national level as of Moderately High Priority or Moderate Priority

Site Photographs - 26 October 2021















