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March 25, 2020

HWD-02.10

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7811 University Avenue
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Subject: Mitigation Assessment Report for the Rock Pile Property, Assessor's Parcel Number (APN) 391-061-28

Dear Ms. Lundy:

At the request of Helix Water District (District), HELIX Environmental Planning, Inc. (HELIX) has completed a mitigation assessment of District-owned property comprised of Assessor's Parcel Number (APN) 391-061-28 (property) located in the unincorporated community of Lakeside, San Diego County, California. The purpose of the assessment was to evaluate existing biological resources and provide the District with recommendations regarding potential value of the property with respect to biological resources mitigation. This letter report summarizes the results of HELIX's mitigation assessment.

INTRODUCTION

Property Location

The subject 232.72-acre property is located east of the City of Santee in the unincorporated community of Lakeside, in southeastern San Diego County (County; Figure 1, *Regional Location*). More specifically, the property is located east of Wildcat Canyon Road, with the southern boundary adjacent to Willow Road (Figure 2, *Aerial Photograph*). The property is situated on the U.S. Geological Survey (USGS) El Cajon and San Vicente Reservoir 7.5-minute quadrangle maps (Figure 3, *USGS Topography*).

The majority of the property occurs within U.S. Fish and Wildlife Service (USFWS) designated critical habitat for the federally-listed as threatened coastal California gnatcatcher (*Poliophtila californica californica*; CAGN), and the southern portion of the property occurs within USFWS designated critical habitat for the federally-listed as endangered arroyo southwestern toad (*Anaxyrus californicus*; ARTO) (Figure 4, *USFWS Critical Habitat*).

METHODS

HELIX conducted an in-house review and search through databases for records of sensitive biological resources known to occur on the property and within a one-mile surrounding buffer. Subsequently, HELIX biologists conducted a general biological survey of the property on February 25, 2020. Survey efforts were primarily conducted on foot. Where possible, restricted areas were visually inspected by binocular scans.

The survey included an evaluation of existing conditions and focused on mapping vegetation communities and land cover types, assessing habitat suitability for sensitive plant and animal species, and identifying potential sensitive biological resources. Physical parameters assessed included vegetation and soil conditions, presence of indicator plant and animal species, slope, aspect, and hydrology. Vegetation was mapped directly in the field on 1 inch=150 feet scale maps of the site, using an approximate 2.0-acre minimum mapping unit and an aerial photograph as a reference. Other materials used in the field included field binoculars and digital camera. Photographs were taken of the property during the survey and can be provided upon request.

All plant identifications were made in the field or in the lab through comparison with photographs and literature resources. Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. The compiled list of plants and animals detected on-site is provided in Attachment A of this report. However, note the lists of species are not necessarily comprehensive accounts of all species that utilize the property as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Additionally, focused surveys for sensitive species were not conducted as part of this assessment. However, those species that are of special status and have potential to occur in the project site are still addressed in this report.

The general biological survey also included a preliminary jurisdictional assessment to determine the presence or absence of water and wetland resources potentially subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and/or State Porter-Cologne Water Quality Control Act, California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600 et seq. of the California Department of Fish and Game Code (CFG Code), and wetlands defined under the County's Resource Protection Ordinance (RPO) .

Nomenclature for this report is taken from Oberbauer (2008) for vegetation communities, plants species are named according to The Jepson Manual Higher Plants of California (Jepson Flora Project [eds.] 2020), reptiles and amphibians are named according to Crother (2012), birds are named according to the American Ornithologists' Union (2019), and mammals are named according to Baker, et al. (2003). Animal sensitivity codes provided are based on the CDFW California Natural Diversity Database (CNDDB) and the Special Animals List (2020b).

EXISTING BIOLOGICAL RESOURCES

Regional Setting and Land Uses

The property is located within USFWS designated critical habitat for two regionally-sensitive species and within the planning boundaries of the adopted South County Multiple Species Conservation Plan (MSCP) in the Lakeside-Metro-Jamul Segment (Figures 4 and 5, *Regional Setting*). The property occurs outside of

areas identified as Hardline or Pre-Approved Mitigation Area (PAMA), but immediately abuts PAMA on the north, east, and west property boundaries (Figure 5).

The property consists of undeveloped vacant land with a few utility easement roads and transmission towers located on it. The San Diego River is located approximately 300 feet south of the southern property boundary.

Accessibility to the property is very restricted. There are no public trails on the property, with the only maintained road areas associated with existing utilities. No unauthorized trespassing, dumping, or unlawful activities were observed during the survey. Due to the location of the property, steep terrain, and limited accessibility, unauthorized uses and associated anthropogenic disturbances are unlikely.

Topography and Soils

The property is relatively mountainous and rocky with multiple scattered rock-outcroppings. Elevations for the property range from approximately 440 to 1,440 feet above mean sea level. In general, the property consists of two large hills, with the ridgeline of each going southwest-northeast.

Three soils types are mapped within the property (USDA 2019) and consist of: Acid Igneous Rock Land (AcG); Cienega-Fallbrook rocky sandy loams (CnG2), 30 to 65 percent slopes, eroded; and Tujunga sand (TuB), 0 to 5 percent slopes. Other than acid igneous rock, none of these soil types are known key indicators for supporting sensitive species.

Vegetation Communities

The property primarily supports Diegan coastal sage scrub and southern mixed chaparral (granitic) vegetation communities. In total, five vegetation communities/land use types were mapped: Diegan coastal sage scrub, southern mixed chaparral (granitic), non-native grassland, disturbed habitat, and urban/developed. Descriptions of the vegetation communities are provided below and the spatial distributions on-site are depicted on Figure 6, *Vegetation and Sensitive Resources*. Acreages are provided following each vegetation description and summarized in Table 1, *Vegetation Communities and Land Use Types within APN 391-061-28*.

Table 1
VEGETATION COMMUNITIES AND LAND USE TYPES WITHIN APN 391-061-28

Vegetation Community	Acreage ¹
Uplands	
Diegan Coastal Sage Scrub	176.53
Southern Mixed Chaparral (Granitic)	47.02
Non-native Grassland	2.65
Disturbed Habitat	5.19
Urban/Developed	1.33
Total	232.72

¹Rounded to the nearest hundredth of an acre.

Diegan Coastal Sage Scrub

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Despite the fact that it has been greatly reduced from its historical distribution (Oberbauer 1991), the Diegan association is the dominant coastal sage scrub in coastal Southern California from Los Angeles to Baja California, Mexico (Holland 1986). Diegan coastal sage scrub was listed as the third most extensive vegetation community in the County in 1965 (CDFG 1965). Oberbauer (1979) and Oberbauer and Vanderwier (1991) suggest that nearly 72 percent of the San Diego County's original sage scrub habitat has been destroyed or modified, primarily a result of urban expansion.

This is the most prevalent vegetation community on the property, encompassing 176.53 acres (Figure 6). This community is dominated/co-dominated for the most part by chuparosa (*Justicia californica*), laurel sumac (*Malosma laurina*), and sage brush (*Artemisia californica*). Abundance of each of these species varies throughout this community.

Southern Mixed Chaparral (Granitic)

Southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense often nearly impenetrable stands with poorly developed understories. In this mixed chaparral, the shrubs are generally tall and deep rooted, with a well-developed soil litter layer, high canopy coverage, low light levels within the canopy, and lower soil temperatures (Keeley and Keeley 1988). This vegetation community occurs on dry, rocky, often steep north-facing slopes with little soil. As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), coast white lilac (*Ceanothus verrucosus*), Ramona lilac (*Ceanothus tomentosus*), white-stem wild-lilac (*Ceanothus leucodermis*), big-berry manzanita (*Arctostaphylos glauca*), and scrub oak (*Quercus dumosa*). This vegetation community provides important habitat for wide-ranging species such as mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), and golden eagle (*Aquila chrysaetos*). This vegetation community is considered sensitive.

This community occurs within the northwestern portion of the property, encompassing 47.02 acres (Figure 6). Dominant species in this vegetation community within the property include chamise and laurel sumac, with secondary/tertiary species including chaparral whitethorn (*Ceanothus leucodermis*), scrub oak (*Quercus berberidifolia*), and sage brush.

Non-native Grassland

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oats (*Avena* sp.), red brome (*Bromus rubens*), ripgut (*B. diandrus*), ryegrass (*Lolium* sp.), and mustard (*Brassica* sp.). Most of the annual introduced species that comprise the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These two factors, in addition to intensive grazing and agricultural practices in conjunction with severe droughts, contributed to the successful invasion and establishment of these

species and the replacement of native grasslands with an annual dominated non-native grassland (Jackson 1985).

This community is found within the southern portions of the property near Willow Road and encompasses 2.65 acres of the property. Various non-native grasses such as ripgut brome (*Bromus diandrus*) and wild oat (*Avena barbata*) were observed.

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Within the property, disturbed habitat comprises approximately 5.19 acres associated with existing utilities and Willow Road, which occurs as a dirt road within the property boundary.

Urban/Developed

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Within the property, urban/developed land comprises approximately 1.33 acres associated with portions of private residences located north of Willow Road.

Sensitive Plant and Animal Species

Sensitive Plant Species

There are no database records of sensitive plant species occurring on the property, with one sensitive plant species observed during HELIX's field survey: San Diego sunflower (*Bahiopsis laciniata*). This species has a California Rare Plant Ranking (CRPR) of 4.3. It occurs in large clusters in the southwestern portion of the property (Figure 6). Although many annual species were flowering at the time of the survey, the survey occurred prior to the appropriate seasonal timing (blooming period) to detect most sensitive plants. The blooming period for sensitive plants is generally spring through early summer. Focused surveys were not conducted as part of this assessment.

In addition to San Diego sunflower, six other sensitive plants have the potential to occur within the property, of which two have a moderate or high potential to occur (Lakeside ceanothus [*Ceanothus cyaneus*] CRPR 1B.1 and white rabbit-tobacco [*Pseudognaphalium leucocephalum*] 2B.2]). The remaining four species (delicate clarkia [*Clarkia delicata*] 1B.2; decumbent goldenbush [*Isocoma menziesii* var. *decumbens*] 1B.2; Palmer's goldenbush [*Ericameria palmeri* var. *palmeri*] 1B.1; and San Diego goldenstar [*Muilla clevelandii*] 1B.1) have a low probability of occurrence. The determination of potential to occur on the property is based on known habitats (including elevations and soils) associated with the species. Plant rankings provided above are based on California Native Plant Society (CNPS) Rare Plant Inventory (2020), the CDFW California Natural Diversity Database (CNDDB), and the Special Vascular Plants, Bryophytes and Lichens List (2020a).

Although focused surveys were not conducted for this assessment report, results of the general surveys suggest that at least one sensitive plant species occurs within a portion of the property.

Sensitive Animal Species

There are no database records of sensitive animal species occurring on the properties. However, four sensitive species were observed on the property during HELIX's survey. The species observed include the federally threatened and California State species of special concern (SSC) CAGN; Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*; RCSP); which is a federal species of concern and SSC; western bluebird (*Sialia mexicana*; WEBL), a state watchlist (WL) species; and turkey vulture (*Cathartes aura*), a County Group 1 species. A list of species detected on the property during the surveys is presented in Attachment A of this report.

In addition to CAGN, RCSP, and WEBL, 18 sensitive animal species have been previously documented within one mile of the property and have potential to occur on-site; none are federally or state listed species. These eighteen species include: American badger (*Taxidea taxus*), a SSC; big free-tailed bat (*Nyctinomops macrotis*), a SSC; California glossy snake (*Arizona elegans occidentalis*), a SSC; coastal cactus wren (*Campylorhynchus brunneicapillus couesi*), a SSC; coastal whiptail (*Aspidoscelis tigris stejnegeri*), a SSC; coast patch nosed snake (*Salvadora hexalepis virgulata*), a SSC; orange-throated whiptail (*Aspidoscelis hyperythra*), a WL species; pallid bat (*Antrozous pallidus*), a SSC, pocketed free-tailed bat (*Nyctinomops macrotis*), a SSC; red-diamond rattlesnake (*Crotalus ruber*), a SSC; San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), a SSC; San Diego ring neck snake (*Diadophis punctatus similis*), a County Group 2 species; southern California legless lizard (*Anniella stebbinsi*), a SSC; western spadefoot (*Spea hammondi*), a SSC; western yellow bat (*Lasiurus xanthinus*), a SSC; and yellow-breasted chat (*Icteria virens*), a SSC.

Extending the database review out to three miles from the subject properties, the occurrence of the additional sensitive animal species have been recorded: Cooper's hawk (*Accipiter cooperii*), a WL species; Coronado skink (*Eumeces skitonianus interparietalis*), a SSC; least Bell's vireo (*Vireo bellii pusillus*), a federally listed endangered (FE) and state listed endangered (SE) species; Quino checkerspot butterfly (*Euphydryas editha Quino*), a FE species; San Diego banded gecko (*Coleonyx variegatus abbotti*), a SSC; tricolored blackbird (*Agelaius cooperii*), a SSC; Townsend's big-eared bat (*Corynorhinus townsendii*), a SSC; western mastiff bat (*Eumops perotis californicus*), a SSC; and yuma myotis (*Myotis evotis*), a Western Bat Working Group (WBWG) low-medium priority species.

Of these thirty-two sensitive animal species identified, four are present, and eight species have a moderate potential to occur due to the presence of suitable habitat: big free-tailed bat, California legless lizard, coastal whiptail, coast patch nosed snake, Cooper's hawk, red-diamond rattlesnake, Quino checkerspot butterfly, and western mastiff bat. Of these species, the one with the highest sensitivity is the Quino checkerspot butterfly. Appropriate habitat for this species was observed within the property during the survey visit and the property occurs within the species' known range. The habitat consisted of a patch of dot-seed (dwarf) plantain (*Plantago erecta*; Figure 6), which is a primary larval host plant for this species. The nearest recorded record of this species is approximately 0.6 mile west-southwest of San Vicente, or approximately three miles from the property. The area between the sighting and the property is primarily undeveloped, with no large urban features (i.e. housing developments) between the sighting and the property. One other species of importance is the southwestern arroyo toad (*Anaxyrus californicus*), a FE species. There are no species records within three miles of the property, and breeding habitat for this species would occur further to the south

within the San Diego River. The property does not contain the appropriate breeding habitat, but could support upland (aestivation) habitat. However, with no known records of this species in the San Diego River within a three-mile proximity of the project, likelihood of this species occurring on the property is low. It is also possible that the portion of the San Diego River has not been surveyed for this species.

Although focused wildlife surveys were not conducted for this assessment report, results of the general surveys suggest the property supports populations of at least one CAGN pair. The property also contains habitat for the Quino checkerspot butterfly.

Nesting Birds

The property contains vegetation that provides suitable habitat for nesting birds protected under the Migratory Bird Treaty Act (MBTA) and CFG Code.

Jurisdictional Waters and Wetlands

A formal jurisdictional delineation was not conducted; however, desktop assessment and subsequent field surveys to identify potential jurisdictional waters and wetlands was conducted. No blue-line drainage features, streams, wetlands, or other aquatic resources were observed on the property during the field survey. Steep gullied land occurs in portions of the site and these areas could support ephemeral drainage features; however, none of the areas surveyed expressed strong field indicators of potential jurisdictional waters. A formal jurisdictional delineation of the entire property would be required to fully determine the extent of potential jurisdictional aquatic resources on the property.

BIOLOGICAL VALUE

The properties contain biological resources that are considered sensitive by the County and/or resource agencies (i.e., USFWS, USACE, RWQCB, and CDFW), including resources that have significant local and regional importance, which enhances the overall value of the land from a biological resources perspective. These resources are explained in further detail below.

Regional Preserve Connectivity (Critical Habitat, MSCP PAMA, & MSCP BRCA)

The property has very good conservation value based on its location in relation to existing and targeted regional open space. The property occurs within the planning boundaries of the adopted South County MSCP, and specifically, within the Metro-Lakeside-Jamul segment (MSCP; 1997). Although not overlaying the property itself, undeveloped land designated as PAMA surrounds the property to the north, east, and west (Figure 5). Biological Resource Core Area (BRCA) 9 also surrounds the property, as do several open space preserves. Last, USFWS-designated critical habitat overlays the property and extends further to the south across the San Diego River (Figure 4).

Conclusion: The property is contiguous with large habitat blocks in the local area that are also known to support sensitive biological resources. The property is also surrounded by lands designated as PAMA and BRCA, which represent key elements of regional preserve assembly for the County MSCP. The property also represents a keystone property for USFWS-designated critical habitat for the coastal California gnatcatcher, a regionally-important species that was found on the property. The property's contiguity with other

expansive undeveloped lands and location between important open space preserve targets significantly adds to the property's biological value.

Sensitive Vegetation Communities/Habitat Types

The San Diego County MSCP's Biology Mitigation Ordinance (BMO) identifies sensitive habitat and assigns a "tier" value to each upland sensitive habitat type (County 2012, 2010). Tier I habitat types are the most sensitive, and Tier IV types are the least sensitive. All of the vegetation communities (excluding disturbed and developed lands) identified as occurring within the subject property are considered sensitive as shown in Table 2, *Sensitive Habitat within APN 391-061-28*, and Figure 6.

Table 2
SENSITIVE HABITAT WITHIN APN 391-061-28

Vegetation Community	Tier¹	Acreage²	Potential to be Occupied by Sensitive Species of High Biological Value?	Suitable Habitat for Sensitive Species?
Uplands				
Diegan Coastal Sage Scrub	II	176.53	Moderate – High ³	Yes
Southern Mixed Chaparral (Granitic)	III	47.02	Low	Yes
Non-native Grassland	III	2.65	Low	Yes
TOTAL		226.20	--	--

¹ Tier levels based on County Biological Mitigation Ordinance, Attachment K.

² Rounded to the nearest hundredth of an acre.

³ Quality of DCSS to sensitive species is variable based on differences in plant species composition and topography.

Conclusion: As summarized in Table 2 above, the property contains sensitive vegetation communities, including Diegan coastal sage scrub (DCSS) with the potential to be occupied by regionally-important sensitive species of high biological value (e.g., Quino checkerspot butterfly, coastal California gnatcatcher). The potential for species to occupy the entirety or portions of the property varies based on vegetation composition and topography. Focused species surveys would fully determine which sensitive species are present or absent from the property. Nevertheless, based on the information available at this time, the property provides significant biological value with respect to sensitive habitat.

Sensitive Plant and Animal Species

Sensitive Plant Species

One sensitive plant species was observed in the southwestern portion of the property, San Diego sunflower, which is a CRPR Rank 4.3 species (Figure 6). This species is not federally or state listed and relatively common throughout the County. Multiple additional sensitive plant species have potential to occur on the property given the presence of suitable habitat and that they've been recorded within three miles of the property. However, none of the additional sensitive plant species with potential to occur are federally or state listed species and it is unlikely that the property would support significant populations.

Although the general surveys were conducted during appropriate seasonal timing (blooming period) to detect sensitive plants, focused surveys were not conducted. To conclusively determine the presence/absence of sensitive species within the properties focused species surveys should be conducted. Focused surveys for sensitive plants should be performed during the appropriate time of year for detection, which is typically between late spring and early summer.

Conclusion: One low ranking sensitive species was observed on a portion of the property, with a few additional sensitive species with moderate potential to occur. Populations of regionally-important sensitive plant species of high biological value are not expected to occur on the property. Focused species surveys would fully determine which sensitive species are present or absent from the property. If other sensitive plants are found present as a result of focused surveys, the biological value of the property would increase.

Sensitive Animal Species

Four sensitive animals have been documented as occurring within the property as a result of the field survey (Figure 6). Of these four species, the coastal California gnatcatcher is considered regionally-important especially since a majority of the site is designated as USFWS critical habitat for this species (Figure 4). Additionally, multiple sensitive wildlife species have been recorded in the vicinity (within three miles) of the property and for which the property provides suitable habitat. One of the species, the Quino checkerspot butterfly, is a regionally-important species. Potential of this species occurring on the property is moderate but limited. The property contains dot-seed plantain, the primary larval host plant of this species, and is within this Quino checkerspot survey area. Dot-seed plantain was only observed in one area during the survey visit (Figure 6). However, a site assessment specific to the Quino checkerspot butterfly would be needed to determine distribution of potential habitat throughout the property. Another regionally-important species with potential to occur on the property is the southwestern arroyo toad. The southern portion of the property occurs within USFWS critical habitat for this species. It is presumed that this is due to the property's vicinity to the San Diego River. This species breeds within the San Diego River, but there are no records of this species within three miles of the property. Because of this, potential for this species to occur on the property is low. Potential for this species would increase if this species was recorded in the nearby portion of the San Diego River. The property only contains potential upland (aestivation) habitat and no breeding habitat. Besides the two species discussed, no other species with potential to occur on the property are considered regionally-significant.

Conclusion: The presence of suitable habitat for sensitive animal species increases the biological value of the property. One regionally-important species occurs on the property, with two additional regionally-sensitive species having varying potential to occur on the property. The presence of the coastal California gnatcatcher provides high biological value to the property. The same would be true to occupied habitat associated with Quino checkerspot butterfly and the southwestern arroyo toad. Habitat value associated with any of these species would be considered high. Focused surveys would conclusively determine the presence or absence of regionally-important species on the property, including the coastal California gnatcatcher, Quino checkerspot butterfly, and southwestern arroyo toad.

Jurisdictional Waters and Wetlands

A formal jurisdictional delineation was not conducted on the property. However, based on the survey visit there are no jurisdictional waters or wetlands, including ephemeral streambeds, drainages, riparian areas, etc.

Conclusion: There is no additional value provided as a result of jurisdictional waters and wetlands because these resources are presumed to be absent from the property.

POTENTIAL MITIGATION VALUE

For the purposes of this assessment, biological mitigation value of a property is determined based on the type and amount of sensitive biological resources present, which is best exemplified by the type and amount of sensitive habitat present. As stated in the above conclusions, the property supports some high-value sensitive habitat. The value of this habitat would be more conclusively determined upon completion of focused species survey efforts for sensitive plants, coastal California gnatcatcher, Quino checkerspot butterfly, and potentially southwestern arroyo toad. In general, the expected current market demand is likely moderate to high for habitat occupied by species within the MSCP planning boundaries, but likely low to moderate for unoccupied habitat.

Table 3, *Preliminary Mitigation Market Value/Comparison*, provides a preliminary estimate of the potential biological value of the site based solely on cost comparisons from HELIX's knowledge of conservation (mitigation) banks in San Diego County.

Table 3
PRELIMINARY MITIGATION MARKET VALUE/COMPARISON

Vegetation Community	Acres	Mitigation Bank Comparison Cost/Acre	Potential Estimated Value
Uplands			
Diegan Coastal Sage Scrub	176.53	\$29,500 – \$76,000 ¹	\$5,207,635 - \$13,416,280
Southern Mixed Chaparral (Granitic)	47.02	\$15,390 - \$76,000	\$723,638 - \$3,573,520
Non-native Grassland	2.65	\$15,390 - \$85,000	\$40,784- \$225,250

¹Higher end of the range expected for habitat occupied by a regionally-important species.

NOTE: *The potential estimated values in this report are solely based on the current selling price per acre for existing land banks situated at various locations in San Diego County. The values reported are gross and further do not take into account the investment cost to produce land bank credits. The estimated values also do not take any other value comparison data. Therefore, the values reported here should not be misrepresented as an appraisal of the property value as a whole.*

POTENTIAL MITIGATION NEED / MARKET DEMAND

In general, demand for habitat-based mitigation in San Diego County is driven by development pressure in a particular local jurisdiction, ecoregion, or watershed.

There are several upland conservation banks with available credits for sage scrub, chaparral and/or non-native grassland habitats currently available within San Diego County. These banks are serving the current market demand and still have credits remaining, which is one indicator that the current demand

is not high. Chaparral habitat is abundant throughout the County, which means the mitigation requirements for impacting the habitat are relatively lower. This correlates with a lower demand and, with a market that is already saturated with conservation banks that have available credits, lower value. Diegan coastal sage scrub habitat is not as abundant as chaparral and the mitigation requirements are higher. The demand for credits is also higher, especially for Diegan coastal sage scrub occupied by the coastal California gnatcatcher, or any other regionally-important species. The demand grows even higher when the mitigation land is situated within USFWS-designated critical habitat and amongst lands targeted for MSCP preserve configuration. Even so, as with chaparral, the market is already moderately saturated with conservation banks that have available Diegan coastal sage scrub (including occupied) credits, which lowers the demand.

POTENTIAL OPPORTUNITIES

Mitigation Bank Opportunity

Although the property is relatively large, given the low diversity of vegetation/habitat types, the prospect of setting up a mitigation bank is likely not worth the investment and administrative costs, given the current market for the types of habitat credits that the property could yield. This could change if a large portion of the property was occupied by regionally-sensitive species, which could be confirmed with completion of focused surveys.

Initiating a mitigation or conservation bank requires extensive planning and coordination with several agencies for five years or more. Table 4, *Mitigation Bank Option*, provides a preliminary estimate of the potential timeline related to the establishment of a mitigation bank in San Diego County. This estimate is preliminary and the timeline can be extended depending on a number of factors.

Initial baseline conditions studies would identify current existing conditions as well as potential constraints and opportunities within the property. Pending the results of the baseline conditions studies, protocol species surveys may also be required. In addition, a cultural resources/NHPA Section 106 study would be conducted to identify possible cultural and/or historic resources within the property.

Once the potential constraints and opportunities are determined, a market analysis and business plan would be needed to make an informed decision to move forward in the process.

A CEQA determination would need to be submitted and processed with the County as a responsible agency to approving the mitigation credits. Concurrently, a Conceptual Mitigation Plan and Mitigation Bank Prospectus would need to be submitted to the agencies for review and approval to continue. A Habitat Mitigation and Monitoring Plan and Long-Term Management Plan would be submitted to the agencies for review and approval following the approval of the Conceptual Mitigation Plan. Through the Long-Term Management Plan process, a long-term preserve manager would need to be identified and retained to run day-to-day operations of the property.

A conservation easement with a non-wasting endowment would need to be established to encompass all areas proposed for establishment as a mitigation or conservation bank. The bank enabling instrument would need to be submitted to the agencies for review and approval. Once the conservation easement and endowment have been established, the Habitat Mitigation and Monitoring Plan can be implemented, and the negotiation of the credit release schedule can begin.

Table 4
MITIGATION BANK OPTION

Tasks	Estimated Timeline (Year)					Notes
	1	2	3	4	5	
Baseline Conditions Study (Biological, Cultural)	X					Identify existing conditions, constraints/ opportunities, required studies through formal jurisdictional delineation, cultural resources/NHPA section 106 study
Jurisdictional Determination	X					Obtain from agencies. May not be applicable to this property due to presumed absence of jurisdictional resources.
Market Analysis	X					Inform decision to move forward.
Business Plan	X					Inform decision to move forward.
Conceptual Mitigation Plan	X					Submit to agencies for review along with prospectus.
Mitigation Bank Prospectus	X	X				Submit to agencies for review and approval to move forward.
CEQA	X					Process with County of San Diego. CEQA exemption should be explored.
Process Resource Agency Permits	X	X	X			Endangered Species Act Section 10, California Endangered Species Act Section 2080.1, Environmental Assessment for NEPA compliance.
Process Grading Plans/Permit		X	X			If applicable, process with County of San Diego
Habitat Mitigation and Monitoring Plan		X				Submit to agencies for review and approval.
Long-Term Management Plan		X				Submit to agencies for review and approval.
Identify and Retain Long-Term Preserve Manager		X	X			Meetings, coordination, approve operating agreement, retention.
Conservation Easement		X	X	X	X	Prepare, legal review, agency review/ approval, and record.
Bank Enabling Instrument		X	X	X		Submit to agencies for review and approval.
Non-Wasting Endowment				X		Fund non-wasting endowment (likely minimum amount identified here).
Implement Habitat Mitigation and Monitoring Plan				X	X	Grading, planting, maintenance, monitoring, etc. for restoration activities (re-establishment, rehabilitation, enhancement). Typically requires 5-7 years.
Negotiate Credit Release Schedule				X	X	Based on previous negotiations and progress/trajectory of restoration.
Sell Credits					X	Schedule for return based on credit release schedule and market demand. Type of credits based on restoration potential.

Restoration Opportunity

The property does not present restoration opportunities (i.e., for the creation and restoration of habitat), since the vegetation communities are not disturbed. The disturbed habitat that does occur within the property boundary are associated with established roads and utilities, which would be expected to remain in place.

Business-to-Business Mitigation Sale Opportunity

Business-to-business sales are typically driven by a specific amount of habitat mitigation that is needed by the buyer and the available mitigation acreage of a property seller. The seller's mitigation acreage does not usually match up perfectly with that needed by the buyer; therefore, a surplus of unused mitigation is often the downside of the transaction.

The potential mitigation buyers for the subject property could be special districts, such as other water districts (Padre Dam, County Water Authority, etc.); public agencies such as the San Diego Association of Governments (SANDAG), County of San Diego, and State of California; public utilities agencies such as San Diego Gas & Electric (SDG&E); and private entities seeking mitigation to offset their project impacts in the County, such as a renewable energy developer or residential developer.

CONCLUSION

Based on a preliminary assessment, the following can be concluded:

- The property was found to support regionally-important sensitive resources of high biological value, including coastal California gnatcatcher and suitable habitat for several other species.
- The full extent of the property occupied by regionally-important sensitive resources would need to be determined by protocol-level species surveys.
- The property is situated amongst other conserved lands, including USFWS-critical habitat and MSCP PAMA lands, which significantly increases the biological value.
- The habitat types on the property are relatively common in the region, but still hold some potential value based on available mitigation bank comparisons in other portions of San Diego County (e.g., Oceanside, Fallbrook, Valley Center, Escondido, Ramona, Lakeside), independent of market demand.
- There are no apparent opportunities for restoration on the property.
- In the current market, the potential salability of all or portions of the property for biological mitigation is considered moderate given the geographic location and low development pressure driving demand for mitigation.
- A business-to-business or single sale would be the most preferred option for offloading the property as mitigation; setting up a conservation (mitigation) bank may not be worth the investment and administrative costs given the current market for the types of habitat credits that the property could yield.

- There are active water, renewable energy, other utilities, residential, and other development projects in the general region that may have mitigation needs that fit the property, but additional research is required and the potential demand is expected to be moderate.

CLOSING

We appreciate the opportunity to provide you with this preliminary assessment. Please do not hesitate to contact me or Karl Osmundson at (619) 462-1515 if you have any questions or if we can be of further assistance.

Sincerely,



Jason Kurnow
Senior Scientist

Enclosures:

Figure 1: Regional Location Map
Figure 2: Aerial Imagery
Figure 3: USGS Topography
Figure 4: USFWS Critical Habitat
Figure 5: Regional Setting
Figure 6: Vegetation and Sensitive Biological Resources
Attachment A: Species Compendium

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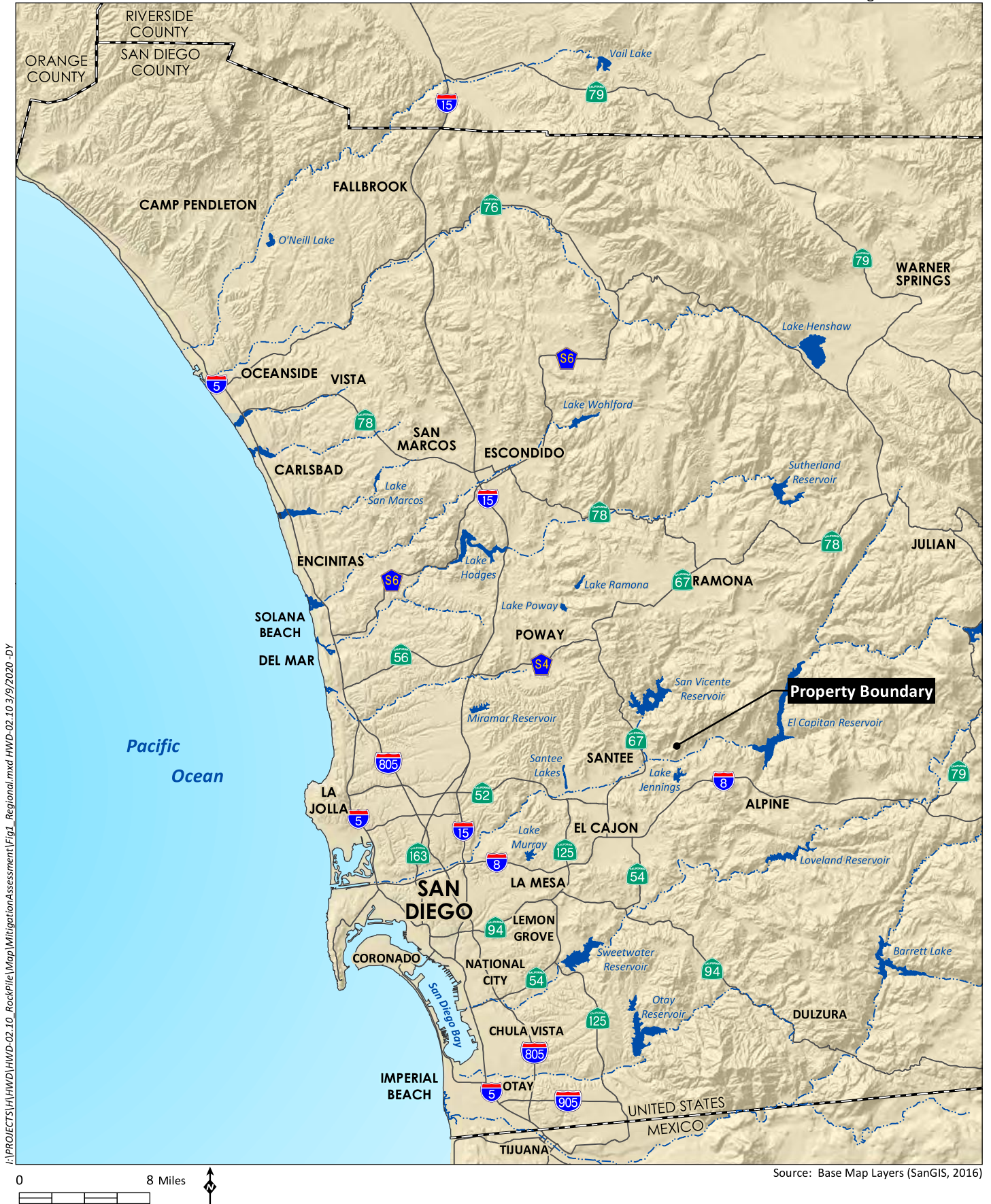
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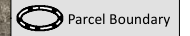
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Regional Location

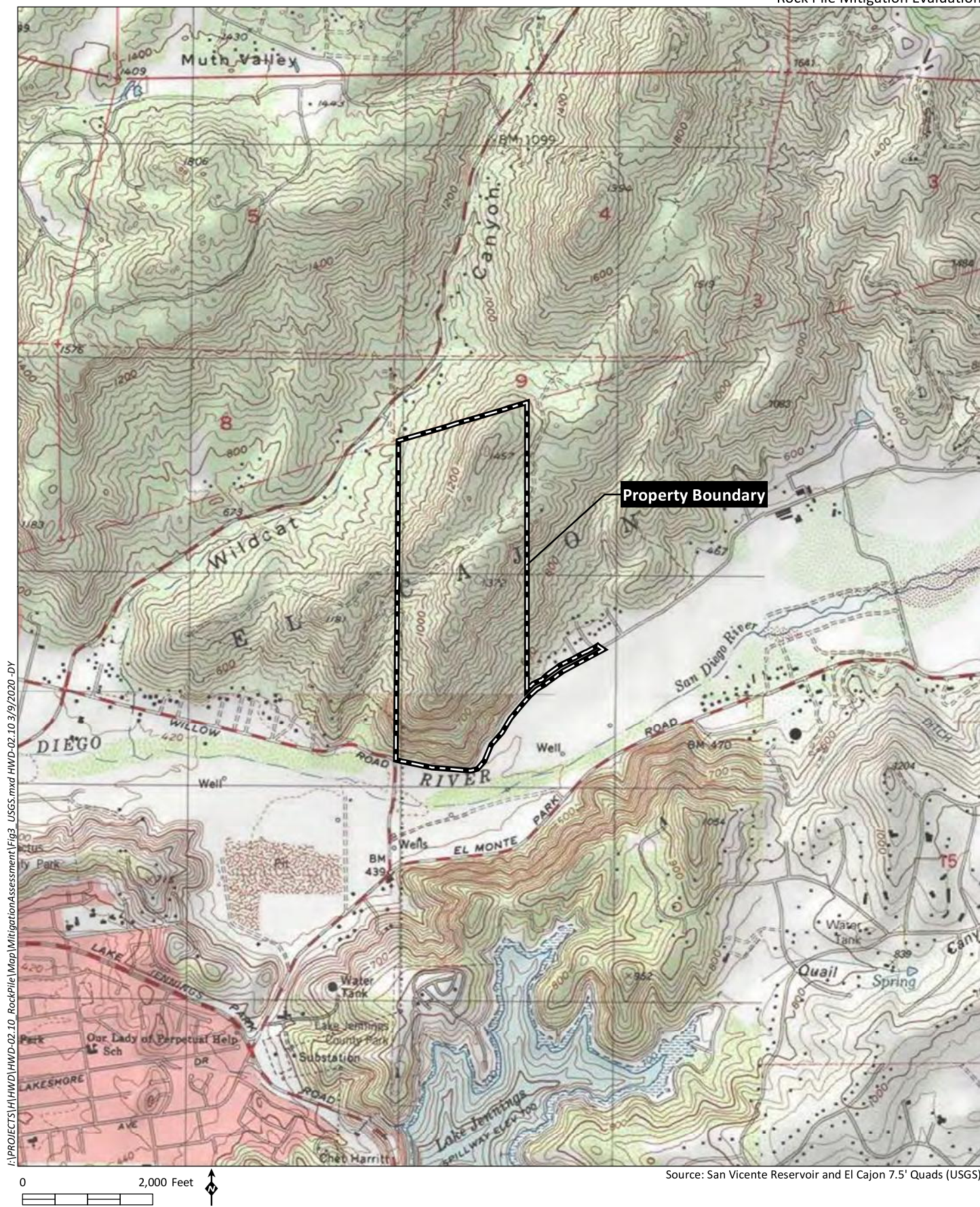
Figure 1

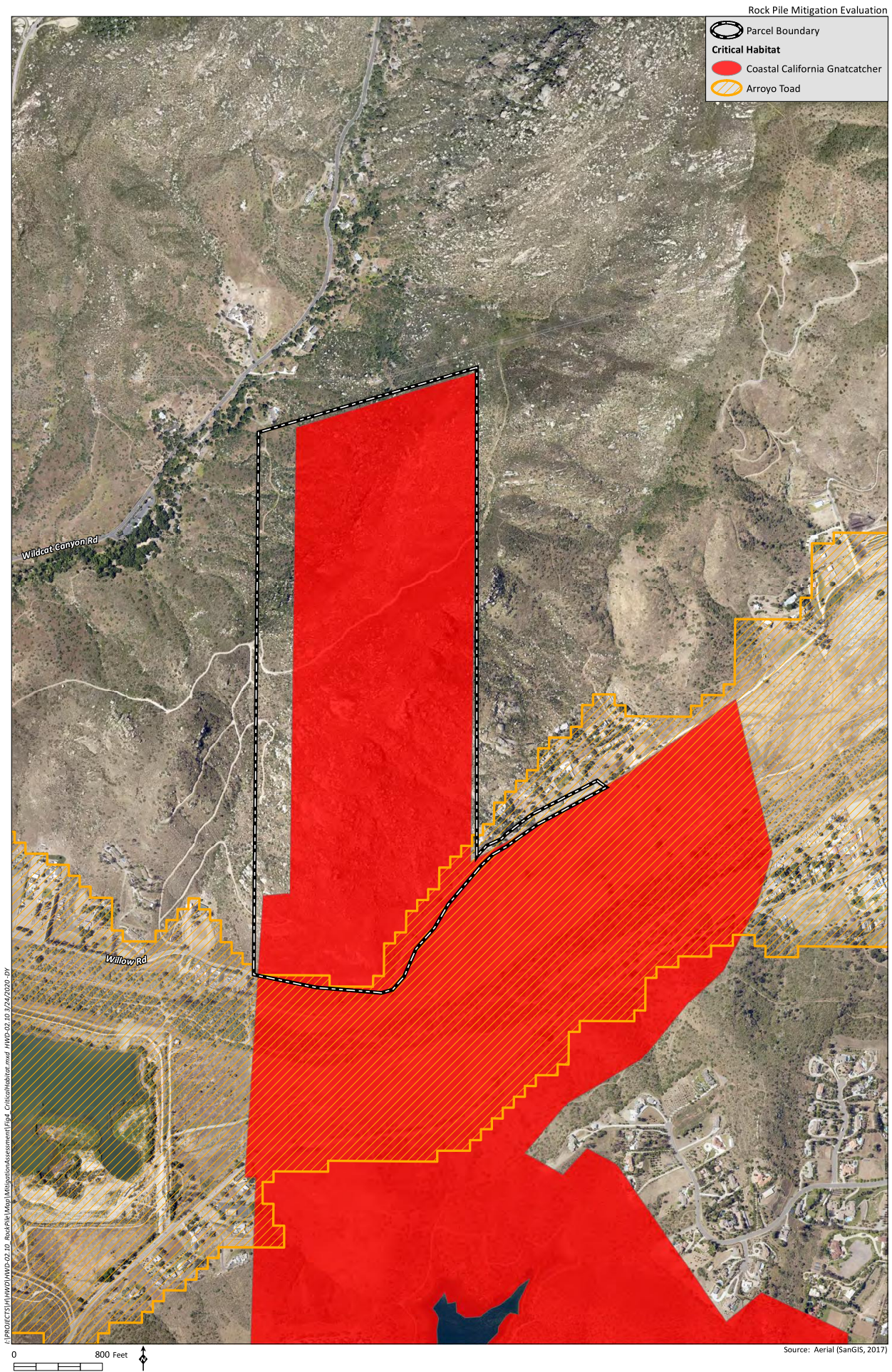


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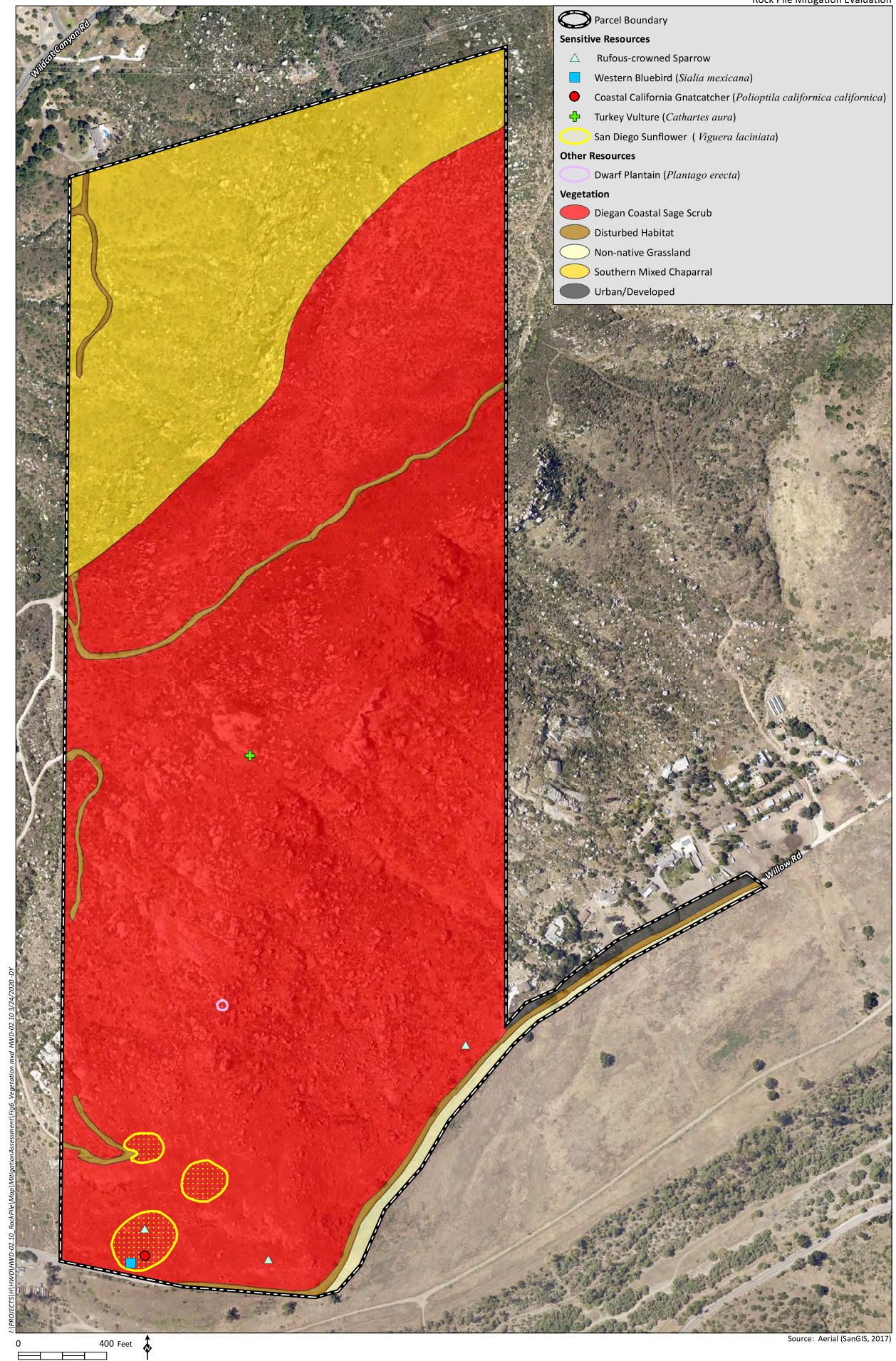


Source: Aerial (SanGIS, 2017)









Attachment A Species Compendium

PLANT SPECIES OBSERVED

Family	Scientific Name ^{*,†}	Common Name
Monocots		
Poaceae	<i>Avena barbata</i>	Slender oat
	<i>Bromus diandrus</i> *	ripgut brome
	<i>Bromus madritensis</i> *	foxtail chess, foxtail brome
	<i>Hordeum jubatum</i> *	foxtail barley
	<i>Pennisetum setaceum</i> *	purple fountain grass
Adoxaceae	<i>Sambucus nigra ssp. caerulea</i>	blue elderberry
Amaranthaceae	<i>Salsola tragus</i>	Russian thistle
Anacardiaceae	<i>Malosma laurina</i>	laurel sumac
	<i>Schinus molle</i>	Peruvian pepper tree
	<i>Toxicodendron diversilobum</i>	poison oak
Asteraceae	<i>Artemisia californica</i>	California sagebrush
	<i>Baccharis sarothroides</i>	broom baccharis
	<i>Bahiopsis laciniata</i> [†]	San Diego sunflower
	<i>Chaenactis artemisiifolia</i>	white pincushion
	<i>Glebionis coronaria</i> *	garland daisy
	<i>Hazardia squarrosa</i>	saw toothed goldenbush
	<i>Pseudognaphalium californicum</i>	California everlasting
	<i>Sonchus oleraceus</i> *	common sow thistle
Boraginaceae	<i>Amsinckia intermedia</i>	rancher's fiddleneck
	<i>Phacelia distans</i>	wild heliotrope
	<i>Phacelia parryi</i>	Parry's phacelia
	<i>Pholistoma racemosum</i>	filaree-leaf nemophila
	<i>Plagiobothrys acanthocarpus</i>	adobe popcorn flower
Brassicaceae	<i>Brassica nigra</i> *	black mustard
	<i>Lepidium oblongum</i>	wayside peppergrass
Cactaceae	<i>Opuntia littoralis</i>	coastal prickly pear
Convolvulaceae	<i>Cressa truxillensis</i>	Alkali weed
Convolvulaceae	<i>Cuscuta californica</i>	dodder
Cucurbitaceae	<i>Cucurbita foetidissima</i>	coyote melon
	<i>Marah macrocarpa</i>	wild cucumber
Euphorbiaceae	<i>Chamaesyce melandenia</i>	rattlesnake spurge
Fabaceae	<i>Acmispon glaber</i>	deerweed
Fabaceae	<i>Lupinus bicolor</i>	miniature lupine
	<i>Lupinus hirsutissimus</i>	stinging lupine
Fagaceae	<i>Quercus agrifolia</i>	coast live oak
	<i>Quercus berberidifolia</i>	inland scrub oak
Geraniaceae	<i>Erodium cicutarium</i> *	coastal heron's bill
Grossulariaceae	<i>Ribes indecorum</i>	white flowering currant
Fabaceae	<i>Acmispon glaber</i>	deerweed
Lamiaceae	<i>Marrubium vulgare</i> *	white horehound
	<i>Salvia apiana</i>	white sage
	<i>Salvia columbariae</i>	chia
Nyctaginaceae	<i>Mirabilis laevis</i>	wishbone bush
Phrymaceae	<i>Mimulus aurantiacus var. aridus</i>	low bush monkeyflower

Attachment A (cont.) Species Compendium

PLANT SPECIES OBSERVED (cont.)

Family	Scientific Name ^{*,†}	Common Name
Plantaginaceae	<i>Plantago erecta</i>	dot-seed plantain
	<i>Penstemon sp.</i>	penstemon
Polemoniaceae	<i>Linanthus dianthiflorus</i>	ground pink
Polygonaceae	<i>Eriogonum fasciculatum</i>	California buckwheat
Pteridaceae	<i>Cheilanthes newberryi</i>	cotton fern
Ranunculaceae	<i>Clematis pauciflora</i>	ropevine
Rosaceae	<i>Adenostoma fasciculatum</i>	chamise
	<i>Prunus ilicifolia</i>	holly leaf cherry
Rutaceae	<i>Cneoridium dumosum</i>	bushrue
Selaginellaceae	<i>Selaginella bigelovii</i>	bigelow spike-moss
Solanaceae	<i>Datura wrightii</i>	jimson weed
	<i>Nicotiana glauca</i>	tree tobacco
	<i>Solanum sp.</i>	nightshade
Themidaceae	<i>Dichelostemma capitatum</i>	blue dicks
Urticaceae	<i>Urtica dioica ssp. holosericea</i>	stinging nettle

Attachment A (cont.) Species Compendium

ANIMAL SPECIES OBSERVED OR DETECTED

Taxon	Scientific Name [†]	Common Name
Family		
INVERTEBRATES		
Papilionidae	<i>Papilio eurymedon</i>	Yellow swallowtail
Nymphalidae	<i>Vanessa cardui</i>	Painted lady
Pieridae	<i>Anthocharis sara</i>	Sara’s orangetip
Araneidae		Orb weaver spider
Lycaenidae	<i>Callophrys dumetorum</i>	Bramble hairstreak
VERTEBRATES		
Amphibians and Reptiles		
Phrynosomatidae	<i>Sceloporus occidentalis</i>	Western fence lizard
Viperidae	<i>Crotalus helleri</i>	Southern pacific rattlesnake
Birds		
Corvidae	<i>Aphelocoma californica</i>	Western scrub jay
	<i>Corvus corax</i>	Common raven
	<i>Corvus brachyrhynchos</i>	American crow
Trochilidae	<i>Calypte anna</i>	Anna’s hummingbird
	<i>Calypte costae</i>	
Columbidae	<i>Zenaida macroura</i>	Mourning dove
Fringillidae	<i>Spinus psaltria</i>	Lesser goldfinch
	<i>Haemorhous mexicanus</i>	House finch
Polioptilidae	<i>Poliophtila caerulea</i>	Blue grey gnatcatcher
	<i>Poliophtila californica</i>	California gnatcatcher
Passerellidae	<i>Melospiza melodia</i>	Song sparrow
	<i>Melozone crissalis</i>	California towhee
	<i>Pipilo maculatus</i>	Spotted towhee
	<i>Aimophila ruficeps</i>	Rufous-crowned sparrow
Aegithalidae	<i>Psaltriparus minimus</i>	Bushtit
Mimidae	<i>Mimus polyglottos</i>	Northern Mockingbird
Icteridae	<i>Sturnella neglecta</i>	Western meadowlark
Troglodytidae	<i>Catherpes mexicanus</i>	Canyon wren
	<i>Salpinctes obsoletus</i>	Rock wren
Parulidae	<i>Setophaga pityophila</i>	Olive-capped warbler
Tyrannidae	<i>Tyrannus vociferans</i>	Cassin’s kingbird
Picidae	<i>Dryobates nuttallii</i>	Nuttall’s woodpecker
	<i>Melanerpes formicivorus</i>	Acorn woodpecker
Apodidae	<i>Aeronautes saxatalis</i>	White-throated swift
Accipitridae	<i>Buteo jamaicensis</i>	Red-tailed hawk
Sylviidae	<i>Chamaea fasciata</i>	Wrentit
Odontophoridae	<i>Callipepla californica</i>	California quail
Cathartidae	<i>Cathartes aura</i>	Turkey vulture
Turdidae	<i>Sialia mexicana</i>	Western bluebird
Mammals		
Sciuridae	<i>Otospermophilus beecheyi</i>	California ground squirrel
Canidae	<i>Canis latrans</i>	coyote
Geomyidae		Pocket gopher