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June 24, 2014

MWHA-01

Mr. Parag Kalaria
MWH Global, Inc.
9444 Farnham Street, Suite 300
San Diego, CA 92123

Subject: Biological Resources Letter Report for the Lindley Tank Reservoir Project
PDS2013- HLP-13-001

Dear Mr. Kalaria:

This letter presents the results of a biological resources study conducted by HELIX Environmental Planning, Inc. (HELIX) for the City of Escondido's (City's) proposed Lindley Tank Reservoir project. The study was conducted to provide the City, resource agencies, and the public with current biological data to satisfy review of the proposed project under the California Environmental Quality Act (CEQA) and to demonstrate compliance with federal, state, and city regulations. This report describes the project site's current biological conditions, vegetation communities, and plant and wildlife species observed or detected during surveys. It also identifies any sensitive resources that occur on site or have potential to occur within the project site. In addition, project impacts are assessed and mitigation is proposed to offset the proposed project's unavoidable significant impacts to sensitive biological resources.

INTRODUCTION

Project Location

The 3.56-acre project site is located east of Interstate 15, north of El Norte Parkway, west of North Ash Street, north of Leslie Lane, off Hubbard Avenue within unincorporated County of San Diego (County; Figures 1, 2, and 3). The project site is located within the unincorporated County immediately adjacent to the City (Figure 4). The project site is situated in Township 12 South, Range 2 West on the U.S. Geological Survey Valley Center quadrangle map, Assessor's Parcel Numbers (APNs) 227-010-55 and 58 (Figure 2).

Project Description

The City would like to demolish the existing steel tank and replace it with two tanks with a combined storage capacity of 2.5 to 3.0 million gallons (mg). The City would like to increase the high water level of the replacement tanks by 3 to 4 feet, if feasible. The two tanks would be piped to allow isolation of one tank for maintenance shutdown while leaving the other tank in service. Replacement tanks shall be prestressed and post-tensioned concrete reservoirs, per AWWA D110. The City's preference is for the tanks to be partially or fully buried. The existing steel tank is to remain in service until one of the two replacement tanks can be put into service. Off site trenching and pipe connections include impacts to 0.53 acre of offsite developed habitat along Hubbard Avenue.

Existing Conditions

The project site contains an existing buried reclaimed water reservoir at the north end of the site and the Lindley water tank at the southeastern corner of the site. There is an associated paved road within a 50-foot easement leading up to both the existing reservoir and tank. The rest of the site is predominantly undeveloped, containing native habitats. It is immediately surrounded by residential development on all sides. Elevations within the study area range from approximately 880 to 960 feet above mean sea level (AMSL). Soils within the project site include Las Posas fine sandy loam with 9 to 15 percent slopes; Las Posas fine sandy loam, 15 to 30 percent slopes; Las Posas stony fine sandy loam, 30 to 65 percent slopes; and Wyman loam, 5 to 9 percent slopes (Bowman 1973).

METHODS

Literature Review

Prior to conducting biological field surveys, searches of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) online database for the Valley Center USGS quadrangle map, and review of the Draft Escondido Subarea Plan and Draft North County Subarea Plan were conducted for information regarding sensitive species known to occur within the vicinity of the project site.

General Biological Survey

A general biological survey of the project site, which included the proposed limits of work for the two reservoirs and all associated inlet and outlet pipelines, appurtenances, and access road, was conducted by HELIX biologist Stacy Nigro on October 16, 2012. Vegetation communities within the project site were mapped on a 1"=100' scale aerial image. The area was surveyed on foot with the aid of binoculars and all detected plant and animal species were recorded. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. The animal list that was recorded is not necessarily a comprehensive account of all species that occur within the project site, as nocturnal, secretive, or

seasonally restricted species may not have been observed. All plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs.

Focused Species Surveys

Coastal California Gnatcatcher

In November 2012, a coastal California gnatcatcher protocol survey was conducted by HELIX biologist Jason Kurnow (Permit TE778195). The focused survey followed protocol (U.S. Fish and Wildlife Service [USFWS] 1997) for presence/absence of this species (HELIX 2012; Attachment F). Surveys were conducted on foot and the survey route followed dirt roads and trails where available, and traversed brushy areas where roads or trails were not available. Binoculars were used when necessary. Taped gnatcatcher vocalizations were played infrequently to elicit a response from potentially present, non-vocal gnatcatchers. The tape was used only in areas where birds could not be located without it.

Nomenclature

Nomenclature used in this report follows Baldwin et al. (2012) for scientific names of plants, while common names follow CNPS (CNPS 2010). Other conventions used are Holland (1986) and Oberbauer (2008) for vegetation communities, Heath (2004) for butterflies, Collins and Taggart (2011) for reptiles, American Ornithologist's Union (2011) for birds, and Baker et al (2003) for mammals. Plant species status is taken from the CNPS (2010). Animal species status is from California Department of Fish and Wildlife (CDFW; 2011).

RESULTS

Regional Context

The proposed project site is owned by the City, but is within the jurisdiction of the County. The site is located within the Draft North County Multiple Species Conservation Program (DNCMSCP; County 2009), in which the parcel is located outside of the Pre-Approved Mitigation Area.

Vegetation Communities

Four vegetation communities were mapped within the project site: Diegan coastal sage scrub, non-native grassland, disturbed habitat, and developed land (Table 1; Figure 3).

Table 1 EXISTING VEGETATION COMMUNITIES WITHIN THE LINDLEY TANK PROJECT SITE	
VEGETATION COMMUNITY¹	ACRES
Diegan coastal sage scrub (32500)	2.39
Non-native grassland (42200)	0.0
Disturbed habitat (11300)	0.65
Developed (12000)	0.52
Total	3.56

¹Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008)

Diegan Coastal Sage Scrub (32500)

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 (CDFW 1965). Oberbauer (1977) 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 as a result of urban expansion.

Diegan coastal sage scrub is dominated by subshrubs with leaves that abscise during drought and are replaced by a lesser amount of smaller leaves. This adaptation of drought evasion allows these species to better withstand the prolonged drought period in the summer and fall in areas of low precipitation. Coastal sage scrub occurs on a variety of soil types, both chemically and physically, from sandy lithosols on siliceous sandstone to clay-rich chernozems on volcanic ash. Water is less likely to penetrate to depth in clay soils than in siliceous soils. Clay soils generally lose more moisture through runoff, have lower infiltration rates, store more moisture in an equivalent depth of soil, and are likely to lose a greater proportion of moisture through capillary action and transpiration from shallow-rooted species than siliceous soils. Thus, in areas of relatively low precipitation, fine-textured soils are more likely to favor the success of shallow-rooted species rather than deep-rooted species (Kirkpatrick and Hutchinson 1980).

Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*).

Diegan coastal sage scrub is considered a sensitive habitat by USFWS, CDFW, and the City, and is given the highest inventory priority in the CNDDDB. This habitat type supports a number of federally and state endangered, threatened, and rare plants, as well as several bird, reptile, and insect species that are federally listed or are candidates for federal listing, including the coastal California gnatcatcher.

Dominant species within this vegetation community in the project site include California buckwheat, laurel sumac, and California sagebrush. Approximately 2.39 acres of Diegan coastal sage scrub occurs within the project site.

Non-native Grassland (42200)

Non-native grassland is a dense to sparse cover of annual grasses, often associated with native annual forbs. This vegetation community occurs on gradual slopes with deep, fine-textured, usually clay soils. Most of the annual introduced species that comprise non-native grassland originated from the Mediterranean region of Europe, an area with a climate similar to that in California and a long history of agriculture. These two factors have contributed to the successful invasion and establishment of these species and the replacement of native grasslands with annual dominated non-native grassland (Jackson 1985). Typical invasive species such as black mustard (*Brassica nigra*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and common ripgut grass (*B. diandrus*) are common within this habitat.

Within the parcel adjacent to the project site, this habitat is dominated by foxtail chess and other annual non-native grasses that were not identifiable because they did not contain flowering heads. No non-native grassland occurs within the project site but within the parcel boundaries of the tank site.

Disturbed Habitat (11300)

Disturbed habitat includes land that has little or no habitat value because it has been cleared of vegetation for agricultural purposes or contains heavily compacted soils following disturbance such as grading. Within the project site, disturbed habitat occurs around the existing tank sites along existing dirt roads, and adjacent to off-site residential development on the southern boundary. This vegetation type covers approximately 0.65 acre of the project site.

Developed Lands (12000)

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. Developed land within the project site consists of existing paved road leading up to both existing tank sites. Developed land accounts for approximately 0.52 acre within the Project Site. Off-site improvements to Hubbard Avenue including new pipeline connections will result in impacts to 0.53 acre.

Plants

A total of 22 plant species were observed during the biological survey (Attachment A). Ornamental species occurring within developed land are not included in the species tally or in Attachment A.

Animals

A total of 18 animal species, including 2 butterfly, 2 reptile, 11 bird, and 3 mammal species, were observed or detected during the biological surveys (Attachment B).

Sensitive Resources

Sensitive Habitat

Sensitive habitat is defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. Two sensitive vegetation communities occur within the study area: Diegan coastal sage scrub and non-native grassland. Diegan coastal sage scrub is considered a sensitive habitat by the USFWS, CDFW, and City, and is given the highest inventory priority in the CNDDB.

Sensitive Plants

No threatened or endangered plant species were observed on site. Sensitive species are those considered unusual or limited in that they are: (1) only found in the San Diego region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region. Attachment C presents listed or County sensitive plant species with potential to occur on site and off site near the project.

Sensitive Animals

One sensitive animal species, coastal California gnatcatcher, was observed/detected within project boundaries. The coastal California gnatcatcher is a federally listed as threatened species and was detected during vegetation surveys in October 2012. Protocol surveys for coastal California gnatcatchers were completed within the study area in November 2012 with negative results.

Attachment B presents County sensitive animal species that have a potential to occur on or off site based on proximity to known populations and the vegetation communities present.

Coastal California gnatcatcher (*Polioptila californica californica*)

Status: FT/SSC; County Group 1; County MSCP Covered

Distribution: Southern Los Angeles, Orange, western Riverside, and San Diego counties south into Baja.

Habitat(s): Coastal sage scrub

Status on site: One observed in southeastern portion of site (Figure 5). Protocol surveys were negative. Individual species was presumed to be migrating through site. The site is not ideal for resident species.

Potentially Jurisdictional Features

Potential jurisdictional features were not identified during the survey.

Wildlife Corridors and Movement

Wildlife corridors can be local or regional in scale. Their functions may vary temporally and spatially based on conditions and species presence. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or anthropogenic constraints. Local corridors provide access to resources such as food, water, and shelter, and animals use these corridors to move between different habitats. Regional corridors provide these functions as well by linking two or more large habitat areas. Regional corridors provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations.

Neither the North County MSCP nor the Draft Escondido Subarea Plan identify any Biological Core and Linkage Area either within or adjacent to the project site. The study area does, however, contain undeveloped lands that can be used by wildlife as habitat for foraging. Because native habitat within the study area is surrounded by development, these areas do not provide ideal habitat for larger species; however, they are still likely used for foraging and likely used extensively by smaller native species, particularly birds and reptiles.

REGULATORY CONTEXT

Biological resources within the parcel are subject to regulatory administration by the federal government, State of California and City.

Federal

Endangered Species Act

The USFWS regulates impacts on listed species and their habitats through the Endangered Species Act (ESA). Projects that affect listed species or their habitats require mitigation of those effects in accordance with USFWS standards. The City does not have incidental take authorization from USFWS for any sensitive species because the Escondido Subarea Plan has not been approved.

The USFWS identifies critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. No critical habitat is found on-site.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA) as amended under the Migratory Bird Treaty Reform Act (MBTRA) of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

Clean Water Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act (CWA). The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S. (including wetlands) is overseen by the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. Projects could be permitted on an individual basis or be covered under one of several approved Nationwide Permits. Individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than 6 months) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. A Section 404 Permit would be required if impacts occur to USACE jurisdictional areas. In addition, under Section 401 of the federal CWA, an applicant for a federal permit for an activity that may result in a discharge to a water body must obtain certification from the state that the proposed activity will comply with state water quality standards and water quality objectives. Section 401 provides the Regional Water Quality Control Board (RWQCB) with regulatory authority to certify or deny the proposed activity. A Section 401 Certification must be obtained prior to issuance of a 404 Permit.

State of California

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines). This legislation requires that projects with potential adverse effects or impacts on the environment undergo environmental review. Adverse impacts to the environment are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in listed plants. The California ESA followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated rare under the California ESA.

California Fish and Wildlife Code

Pursuant to California Fish and Wildlife Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by California Fish and Wildlife Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

The California Fish and Wildlife Code (Sections 1600 et seq.) requires issuance of a Lake and Streambed Alteration Agreement by CDFW for projects affecting riparian and wetland habitats.

County of San Diego

The California Natural Communities Conservation Plan (NCCP) Act (Section 2835) allows the CDFW to authorize take of species covered by plans in agreement with NCCP guidelines. An NCCP initiated by the State of California under Section 4(d) of the federal ESA focuses on conserving coastal sage scrub in order to avoid the need for future federal and state listing of coastal sage scrub dependent species. The coastal California gnatcatcher is presently listed as threatened under the federal ESA, while several additional species inhabiting coastal sage scrub are candidates for federal listing. Findings in support of issuance of a habitat loss permit under Section 4(d) of the federal ESA would need to be made if Section 4(d) is relied upon for this project. These findings need to show that the project's loss of Diegan coastal sage scrub does not exceed the County's five percent loss limit. It would also have to demonstrate that habitat loss would not preclude connectivity between high habitat value areas or prevent preparation of a subregional NCCP. Additionally, the findings must show that habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the NCCP Process Guidelines and that the habitat loss would not appreciably reduce the likelihood of survival and recovery of listed species in the wild. Finally, the habitat loss must be incidental to otherwise lawful activities. The County regulates coastal sage scrub habitat loss through the

Habitat Loss Permit (HLP) Ordinance. An HLP application must be filed with the County and approval requires concurrence from USFWS and CDFW. Approval is based on findings made pursuant to the County's HLP Ordinance (County 1993) as required by the NCCP Process Guidelines.

City of Escondido

The Draft Escondido Subarea Plan is intended to be a completed subarea plan under the NCCP and Habitat Conservation Plan (HCP) processes. The City circulated a Draft Escondido Subarea Plan for public review in June 2001, but it has not yet been approved. The Draft Escondido Subarea Plan addresses the City's plans for conservation of natural biotic communities and sensitive plant and wildlife species, and represents the City's contribution to the MHCP and to regional NCCP conservation goals.

According to the draft plan, the City is allowed a loss of up to 5 percent of its coastal sage scrub habitat if it is actively developing a NCCP. The City has reached the 5-percent limit of allowable take of coastal sage scrub. Until recently, any impacts to coastal sage scrub could have been dealt with by applying to the County (under County Board of Supervisors Policy I-122) for allocation of portions of the County's 5 percent take allowance of Diegan coastal sage scrub. However, the resource agencies no longer allow this option. Instead, protocol surveys for the gnatcatcher must be performed to determine if the habitat is occupied. If not occupied, then permits related to the ESA are not required, however, if occupied, then the project applicant must obtain authorization for impacts to the species, likely via a Section 10(a) permit from the USFWS.

CRITERIA FOR DETERMINING IMPACT SIGNIFICANCE

Thresholds for significant biological resource impacts are based on State CEQA Guidelines Appendix G and City policies and regulations. A significant impact would occur if the proposed project would:

- Have a substantial adverse effect either directly or through habitat modifications on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the USFWS or CDFW.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources.
- Conflict with provisions of an adopted HCP, NCCP, or other approved state, regional, or local HCP.

PROJECT EFFECTS

This section describes potential direct and indirect impacts associated with implementation of the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including drainage and toxins (water quality), lighting, noise, invasive plant species, and errant construction impacts. The subject property and mitigation requirements for impacts to sensitive resources are discussed in terms of compliance with both the City and County Subarea plans.

Direct Impacts

Vegetation Communities

The proposed project’s direct impacts to vegetation were quantified by overlaying the limits of grading on the biological resources map (Figure 6). The project would result in permanent impacts to 2.39 acres of Diegan coastal sage scrub (Table 2). No other permanent impacts to sensitive vegetation communities would occur. No additional temporary impacts would occur.

Table 2					
IMPACTS AND MITIGATION TO VEGETATION COMMUNITIES					
VEGETATION COMMUNITY¹	ACREAGE			MITIGATION	
	Existing	On-site Impacts	Off-site Impacts	Mitigation Ratio	Off-site Mitigation
Diegan coastal sage scrub (32500)	2.39	2.39	0.0	2:1	4.78
Non-native grassland (42200)	0.0	0.0	0.0	0.5:1	0.0
Disturbed habitat (11300)	0.65	0.65	0.0	--	N/A
Developed (12000)	0.52	0.52	0.53	--	N/A
TOTAL	3.56	3.56	0.53	--	4.78

¹Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008)

Impacts also would occur to disturbed habitat a non-sensitive vegetation community (Table 2). Impacts to these vegetation communities are not considered significant because they are not considered sensitive.

Sensitive Plant Species

No sensitive plant species are proposed or anticipated to be directly impacted by the project.

Sensitive Animal Species

The proposed project could impact a portion of the coastal California gnatcatcher territory (Figure 6). Impacts to this species would be significant under the first CEQA Threshold listed above.

Jurisdictional Areas

Although a jurisdictional delineation was not conducted within the project site, no potential jurisdictional areas were identified during the initial site survey, and no impacts to any jurisdictional areas are anticipated.

Wildlife Corridors and Movement

The project would not impact wildlife corridors, as no barriers to wildlife movement would be constructed. The project may temporarily interfere with local wildlife movement during construction, but these impacts are considered less than significant since construction would occur during daylight hours, thus minimizing disruption to animal species that may be present in the vicinity. Substantial interference with local wildlife movement would not occur because of the small area of proposed disturbance (outside of which wildlife movement could still occur), combined with the temporary nature of some of the project impacts.

Local policies, Ordinances and Adopted Plans

The project would not conflict with the provisions of any adopted Habitat Conservation Plan, NCCP, other approved local, regional, or state habitat conservation plan or any other local policies or ordinances that protect biological resources. The project is, however, impacting coastal sage scrub subject to the NCCP. An HLP application must be filed with the County and approval requires concurrence from USFWS and CDFW.

Indirect Impacts

Since the project site is not located within or adjacent to designated preserve areas, potential indirect impacts (e.g., drainage/toxins, lighting, and invasive plant species) from the project were not analyzed. There is a potential for construction noise to impact sensitive species outside of the project limits, which is further discussed below.

Construction Noise

Noise from such sources as grubbing, earthwork, and construction would be a temporary impact to local wildlife. Noise-related impacts would be considered significant if listed species were displaced and failed to breed. Listed species (e.g., coastal California gnatcatcher) nesting within any area impacted by construction noise exceeding 60 dB L_{eq} may be significantly impacted. Any such impacts would be considered significant.

Cumulative Impacts

The area of consideration for cumulative biological projects impacts was restricted to projects occurring within a one-mile radius of the Project site (Figure 7). No projects were indentified within the City of Escondido Projects which surrounds the site on the East and West. A total of seven projects were reviewed for this cumulative analysis within the County of San Diego (Figure 7; Table 3). Of these 7 cumulative projects, none would result in significant or potentially significant cumulative impacts to sensitive biological resources. Of these projects all have been approved, closed, or withdrawn, there were no open projects in the immediate vicinity.

In accordance with County guidelines, the proposed Project would mitigate for these impacts through the off-site preservation of 4.78 acres of occupied coastal sage scrub habitat in accordance with the County and Wildlife Agencies. Thus the proposed Project's impacts to Coastal sage scrub and habitat for California Gnatcatcher, while significant at the project level, are fully mitigated through acquisition of appropriate habitat off site. As the Project would be in conformance with County and City guidelines and mitigation ratios, cumulative impacts would be considered fully mitigated. Accordingly, the proposed Project's contribution to cumulative impacts to sensitive wildlife would be less than significant.

**Table 3
 CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES**

MAP REFERENCE NO.	PROJECT NO.	PROJECT NAME/ STATUS	IMPACTS TO RESOURCE COASTAL SAGE SCRUB
1	PDS2001-3000-01-055	Administrative Permit Closed	0
2	PDS2002-3100-5240	Jack Rabbit Acres TM Closed	0
3	PDS2011-3300-86-009	Rincon Del Diablo MWD Office Addition MUP Approved by PERB 4/24/86	0
4	PDS2009-3200-20208	Doug Logan TPM Approved by Director 8/22/95	0
5	PDS2009-3200-19942	Nelson TPM Approved 4/3/92	0
6	PDS2001-3300-01-022	Buddhist Sanctuary MUP Approved	0
7	PDS2004-3200-20761	Groenberg Approved	0
TOTAL	--	--	0.0

MITIGATION

The project would significantly impact sensitive biological resources. The following measures are proposed to mitigate for these impacts.

Direct Impacts

Sensitive Vegetation Communities

Permanent impacts to Diegan coastal sage scrub would be mitigated according to the ratios presented in the City's draft Subarea Plan and County's Biological Guidelines (County 2010). Mitigation ratios are based on City of Escondido non-preserve designated areas (i.e., outside of the Focused Planning Areas (FPA), and mitigation is assumed to occur within the FPA, possibly within the Red Mountain Mitigation Bank. Accordingly, impacts to Diegan coastal sage scrub would be mitigated at a 2:1 ratio, for a total of 4.78 acre of mitigation (Table 2).

Sensitive Plants

No impacts to sensitive plants are anticipated. Given the low potential for any sensitive plants to occur within the project site (Attachment C), a rare plant survey would not be necessary.

Sensitive Animals

A single coastal California gnatcatcher was detected on site during vegetation surveys, although protocol gnatcatcher surveys were negative. The subject property will mitigate potential impacts to gnatcatcher territory at a 2:1 ratio in accordance with the NCCP, for a total of 4.78 acres of occupied Diegan coastal sage scrub mitigation.

To avoid potential direct impacts to California gnatcatchers within the limits of grading, vegetation clearing prior to grading shall take place outside of the breeding season (February 15 through August 31).

In addition, in order to maintain compliance with the MBTA and to avoid potential significant impacts to nesting birds, vegetation clearing shall take place outside of the general avian breeding season (February 1 through July 31), if feasible. If vegetation clearing must occur during the avian breeding season, a qualified biologist would conduct a pre-construction survey for nesting birds no more than 7 days prior to vegetation clearing. If no active nests are found, clearing can proceed. If active nests are found, no clearing may take place within 100 feet of any active nest until a qualified biologist determines that the nest is no longer active or has failed.

In order to prevent inadvertent disturbance to Diegan coastal sage scrub temporary construction fencing shall be installed along the project footprint prior to the commencement of any grading and or clearing in association with this project.

Jurisdictional Areas

No impacts to jurisdictional areas are anticipated to occur and no mitigation measures are proposed.

Wildlife Corridors and Movement

No permanent impacts to wildlife corridors and movement would occur and no mitigation measures are proposed.

Indirect Impacts

Construction Noise

Noise from such construction-related sources as grubbing, clearing, and grading, as well as construction-related vehicular traffic, would impact local wildlife. Noise-related impacts would be considered significant if sensitive species (such as coastal California gnatcatchers or raptors) were displaced from their nests and failed to breed. Birds nesting within any area impacted by noise exceeding 60 dB L_{eq} or ambient levels (if ambient is greater than 60 dB L_{eq}) may be significantly impacted.

There is potential for coastal California gnatcatchers to nest in Diegan coastal sage scrub located outside of the limits of grading. In order to avoid potential indirect noise impacts to this species, construction would take place outside of the gnatcatcher breeding season (February 15 to August 31). If construction must occur during the breeding season, and habitat within 300 feet of the limits of work is determined to be occupied during protocol surveys, then additional measures (e.g., noise walls) would be implemented to bring average noise levels to below 60 dB L_{eq} per hour.

SUMMARY OF PROJECT IMPACTS AND MITIGATION

The proposed project is located on a hilltop containing developed, disturbed, and native habitat, including sensitive Diegan coastal sage scrub and non-native grassland. Impacts to these native vegetation types are significant and would require mitigation. Total impacts to sensitive vegetation include 2.39 acres of Diegan coastal sage scrub. Total proposed mitigation would consist of 4.78 acres of occupied Diegan coastal sage scrub or other habitat of similar quality, to be purchased from a mitigation bank. Final mitigation will need to be determined in coordination with the County and Wildlife Agencies. A potential mitigation site identified by the Wildlife Agencies on December 19, 2013 was Red Mountain Mitigation Bank.

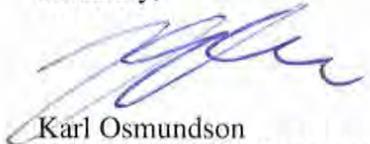
In order to avoid direct impacts to California gnatcatchers within the limits of grading, vegetation clearing prior to grading will be restricted during the California gnatcatcher breeding season (February 15 through August 31).

In addition, in order to maintain compliance with the MBTA and to avoid potential significant impacts to nesting birds, vegetation clearing should take place outside of the general avian breeding season (February 1 through July 31).

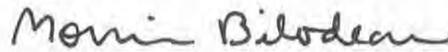
Temporary construction fencing will be placed around the project footprint prior to any clearing and or grading in order to prevent inadvertent disturbance to Diegan coastal sage scrub adjacent to the project boundaries.

Implementation of the mitigation measures listed above would reduce all impacts to below a level of significance. Please do not hesitate to contact me or Monica Bilodeau (Project Manager) at (619) 462-1515 if you have any questions.

Sincerely,



Karl Osmundson
County-approved Biologist



Monica Bilodeau
Project Manager

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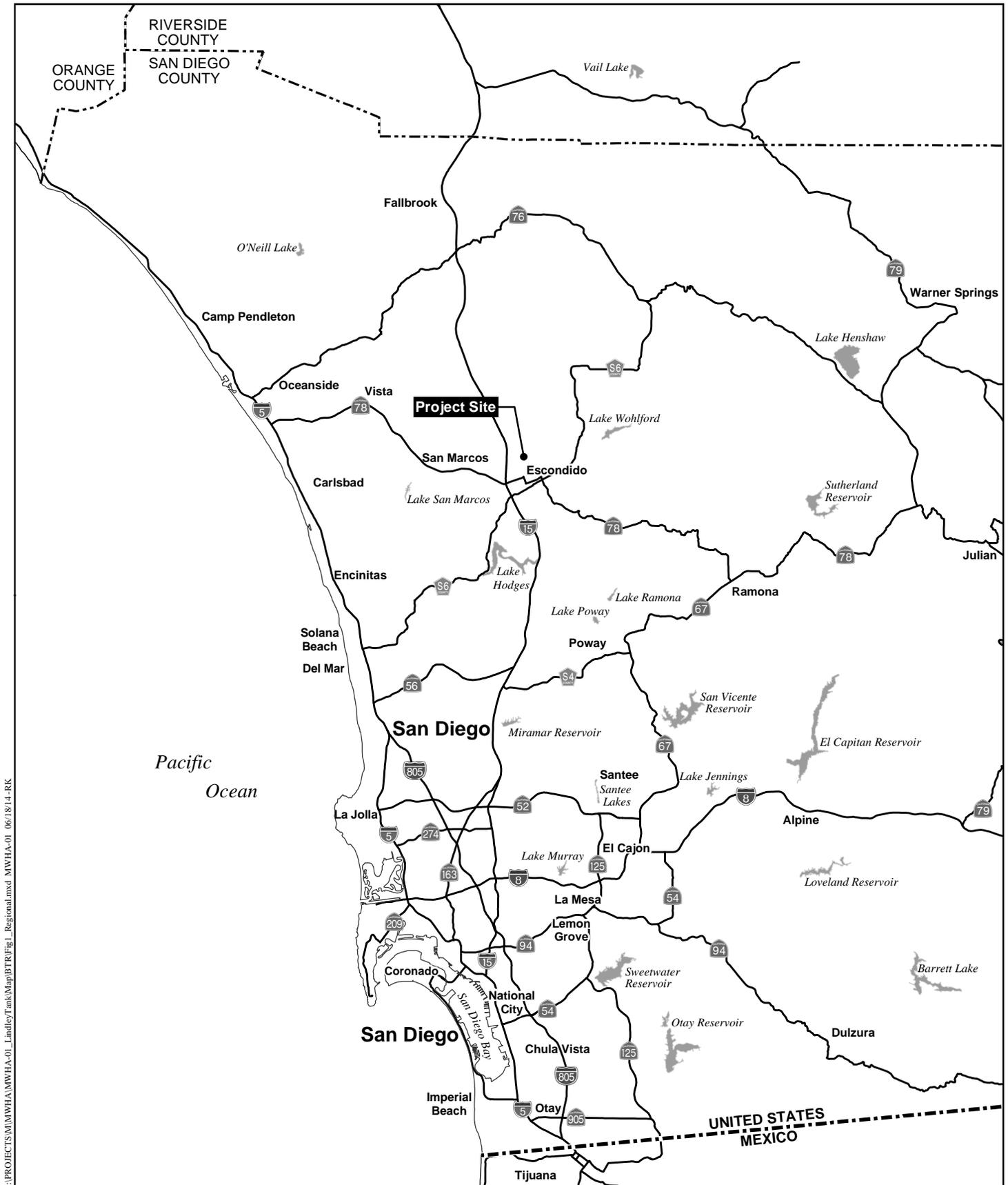
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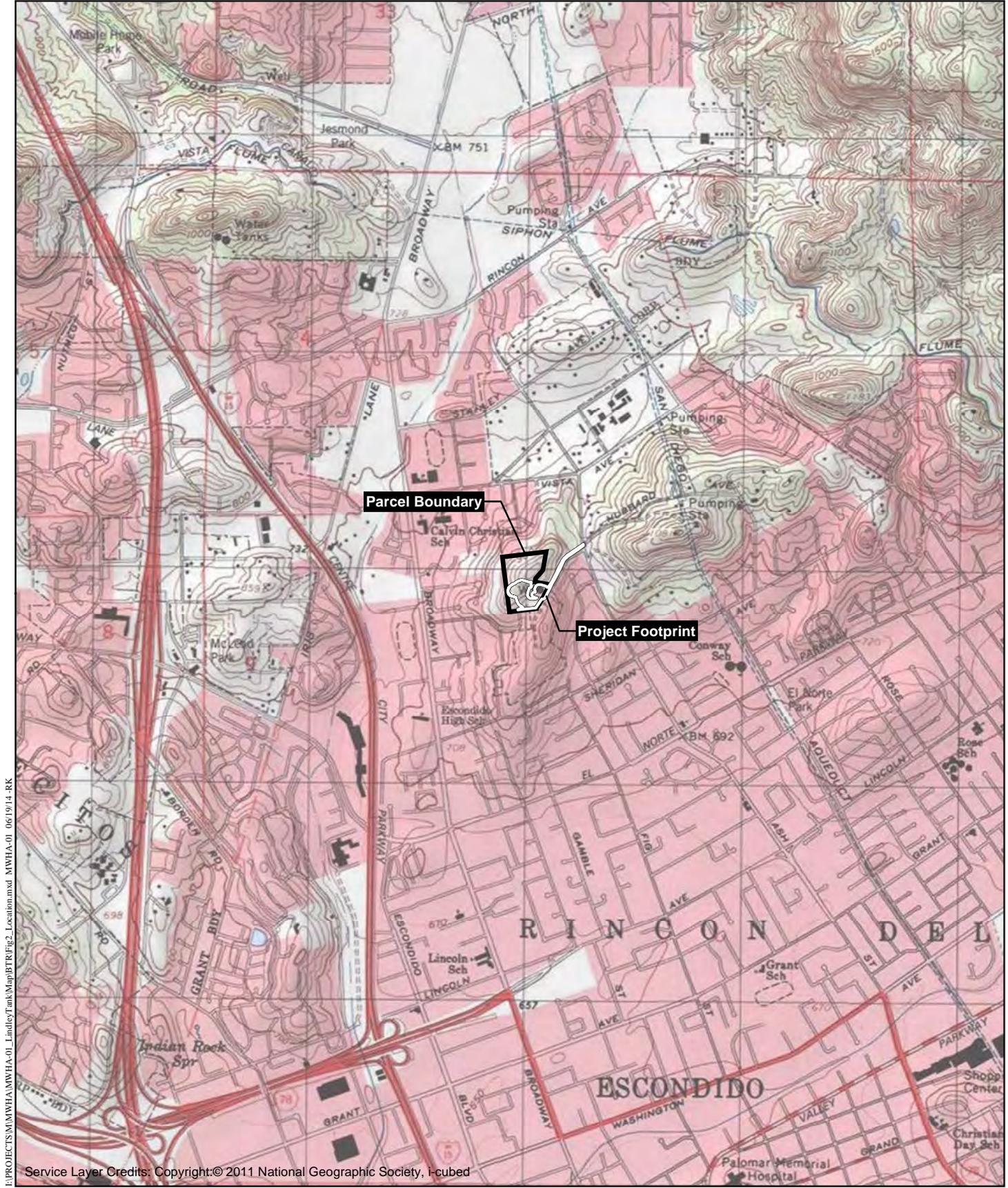
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Regional Location Map

LINDLEY TANK

Figure 1



Project Location Map

LINDLEY TANK

Figure 2



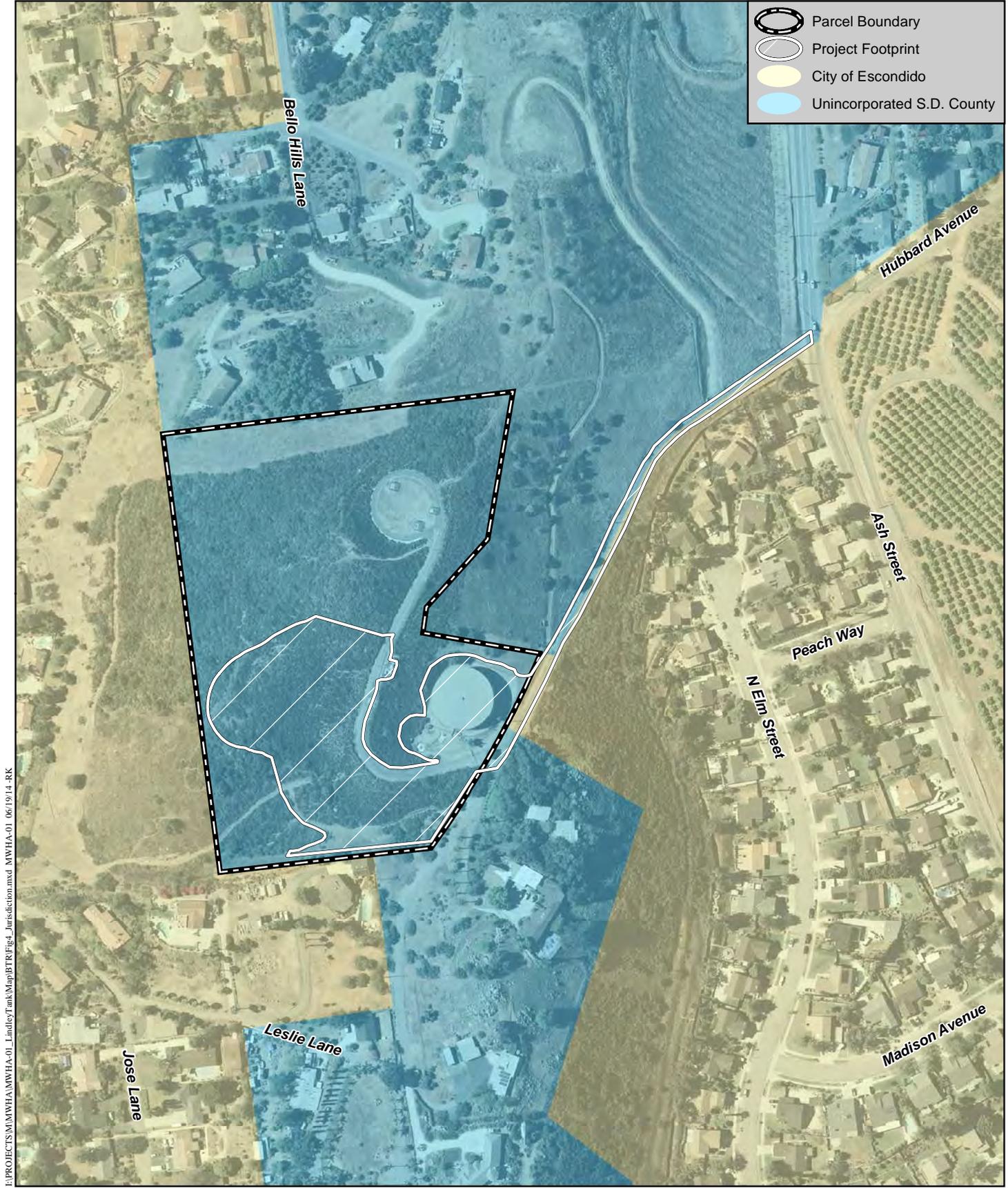
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Aerial Photograph

LINDLEY TANK

Figure 3



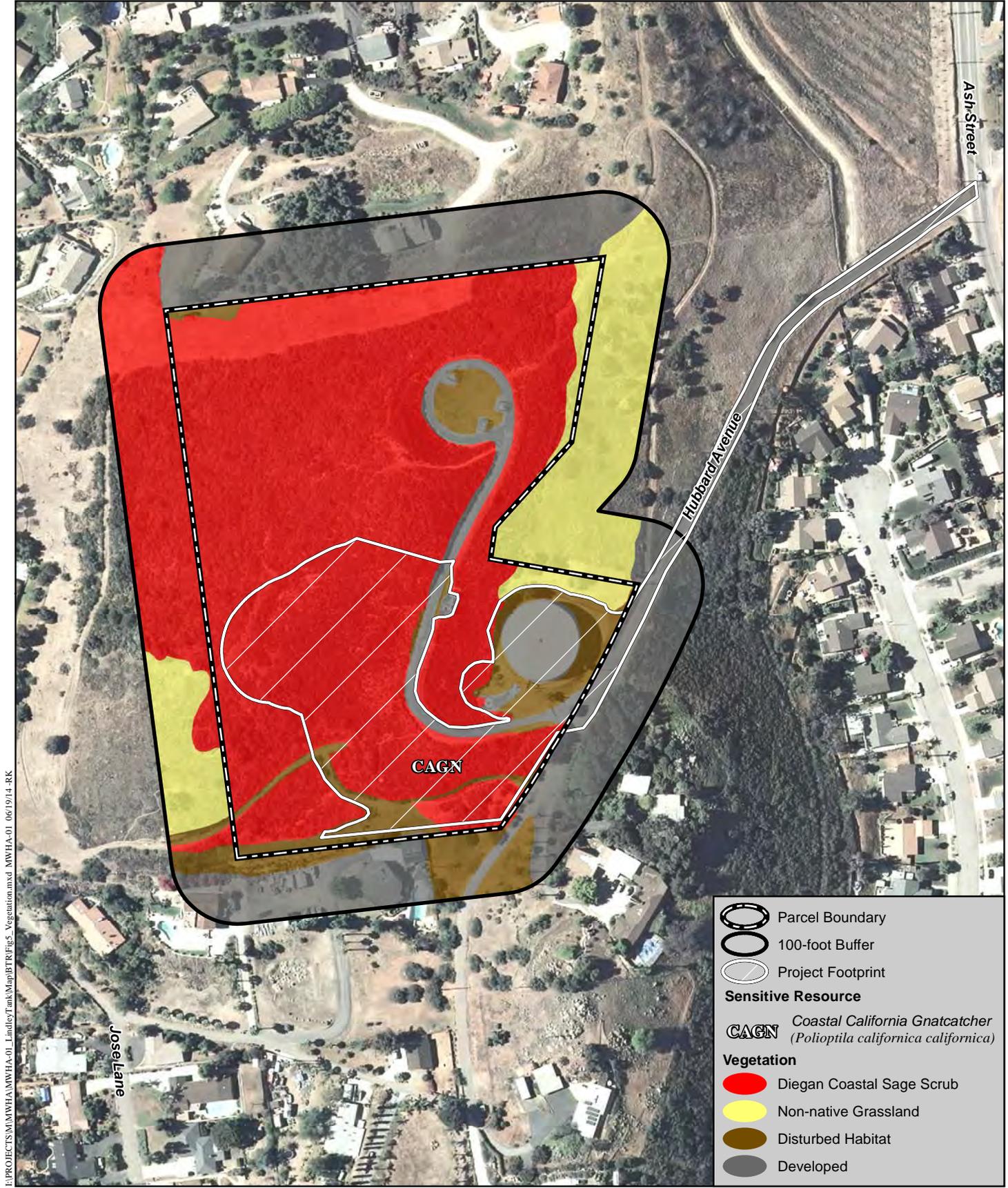


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Jurisdiction

LINDLEY TANK

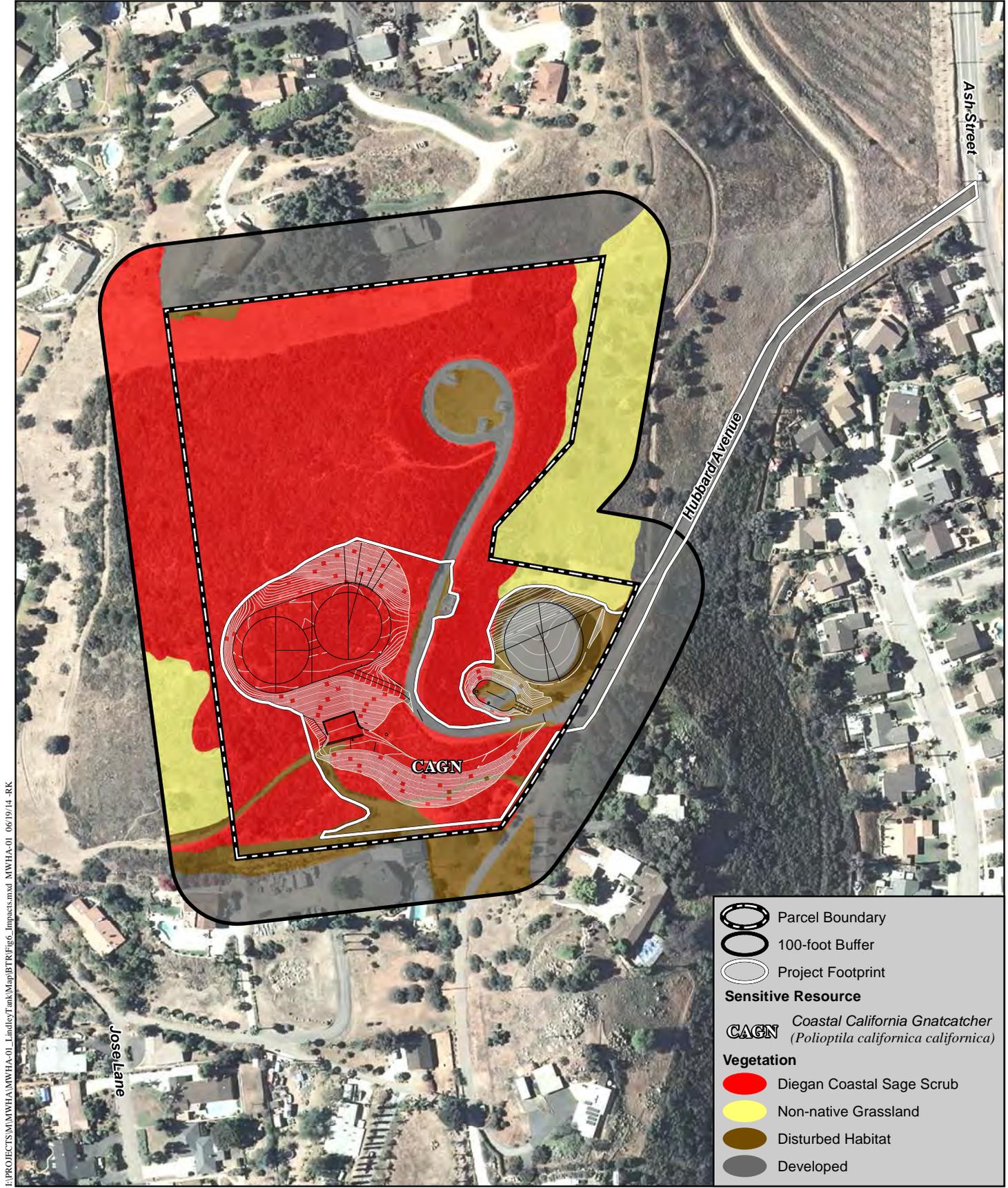
Figure 4



Vegetation and Sensitive Resources

LINDLEY TANK

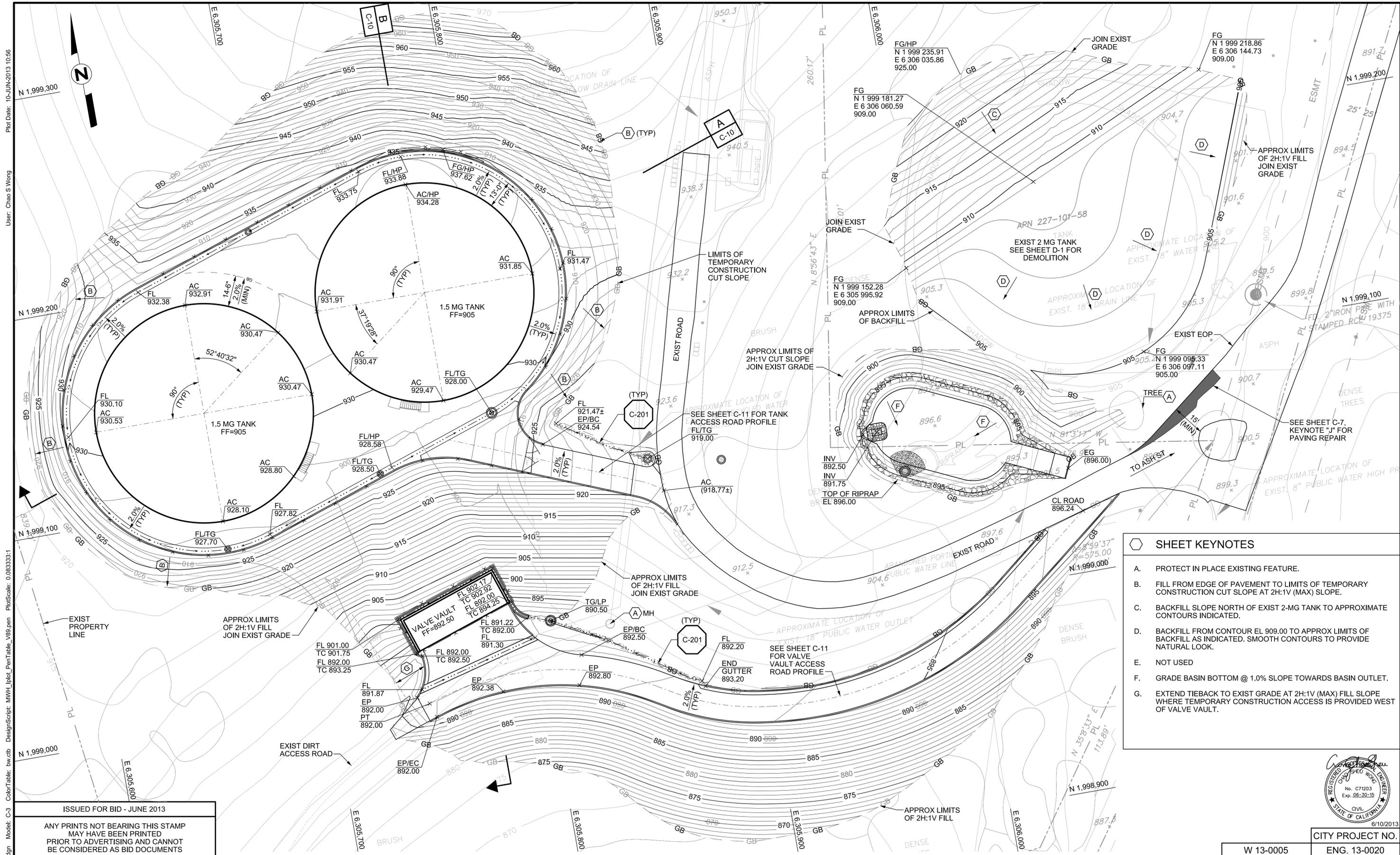
Figure 5



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Vegetation and Sensitive Resources/Impacts

LINDLEY TANK



User: Chao S Wong
 Plot Date: 10-JUN-2013 10:56
 File: LINDY-C-01.dgn Model: C-3 ColorTable: bw.ctb DesignScript: MWH_Iplot_PenTable_V89.pen PlotScale: 0.08333331

- ### SHEET KEYNOTES
- A. PROTECT IN PLACE EXISTING FEATURE.
 - B. FILL FROM EDGE OF PAVEMENT TO LIMITS OF TEMPORARY CONSTRUCTION CUT SLOPE AT 2H:1V (MAX) SLOPE.
 - C. BACKFILL SLOPE NORTH OF EXIST 2-MG TANK TO APPROXIMATE CONTOURS INDICATED.
 - D. BACKFILL FROM CONTOUR EL 909.00 TO APPROX LIMITS OF BACKFILL AS INDICATED. SMOOTH CONTOURS TO PROVIDE NATURAL LOOK.
 - E. NOT USED
 - F. GRADE BASIN BOTTOM @ 1.0% SLOPE TOWARDS BASIN OUTLET.
 - G. EXTEND TIEBACK TO EXIST GRADE AT 2H:1V (MAX) FILL SLOPE WHERE TEMPORARY CONSTRUCTION ACCESS IS PROVIDED WEST OF VALVE VAULT.

ISSUED FOR BID - JUNE 2013

ANY PRINTS NOT BEARING THIS STAMP
MAY HAVE BEEN PRINTED
PRIOR TO ADVERTISING AND CANNOT
BE CONSIDERED AS BID DOCUMENTS

REV	DATE	BY	DESCRIPTION

SCALE: 1" = 20'

WARNING: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

Plans Prepared Under Supervision Of
John E. Kearney
Date: 6/7/2013
R.C.E. No. C59038

DESIGNED: C. WONG
DRAWN: C. WONG
CHECKED: S. WILLIAMS



Approved: _____
By: Deputy Director of Utilities
Construction and Maintenance

CONSTRUCTION RECORD	
Contractor	
Inspector	
Date Completed	

LINDLEY RESERVOIR 2013

CIVIL

FINAL GRADING PLAN

CITY PROJECT NO. W 13-0005 ENG. 13-0020

DRAWING C-3 SHEET NO 14 OF 60



**Attachment A
PLANT SPECIES OBSERVED
LINDLEY TANK RESERVOIR**

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>HABITAT</u>‡
MONOCOTS			
Poaceae	<i>Avena sp.</i>	oats	DCSS, NNG
	<i>Bromus diandrus</i>	common ripgut grass	NNG
	<i>Bromus madritensis*</i>	foxtail chess	DH, NNG
	<i>Pennisetum setaceum</i>	fountain grass	NNG
EUDICOTS			
Anacardiaceae	<i>Malosma laurina</i>	laurel sumac	DCSS
Asteraceae	<i>Artemisia californica</i>	California sagebrush	DCSS
	<i>Baccharis pilularis</i>	coyote brush	DCSS
	<i>Centaurea melitensis*</i>	star thistle	DCSS, NNG
	<i>Conyza sp.</i>	fleabane	DCSS
	<i>Sonchus asper*</i>	prickly sow thistle	DCSS, DH
			DCSS, NNG
Brassicaceae	<i>Brassica nigra*</i>	black mustard	DH
Cactaceae	<i>Opuntia littoralis</i>	coastal prickly pear	DCSS
Cucurbitaceae	<i>Marah macrocarpa</i>	wild cucumber	DCSS
Crassulaceae	<i>Dudleya pulverulenta</i>	chalk-lettuce	DCSS
Euphorbiaceae	<i>Chamaesyce sp.</i>	spurge	DH
	<i>Croton setigerus</i>	dove weed	DH
Fabaceae	<i>Acmispon glaber</i>	deerweed	DCSS
Hydrophyllaceae	<i>Phacelia sp.</i>	phacelia	DCSS
Lamiaceae	<i>Salvia apiana</i>	white sage	DCSS
	<i>Salvia mellifera</i>	black sage	DCSS
Polygonaceae	<i>Eriogonum fasciculatum</i>	buckwheat	DCSS
Primulaceae	<i>Anagallis arvensis</i>	scarlet pimpernel	DH

‡Habitat acronyms: DCSS=Diegan coastal sage scrub, NNG=non-native grassland, DH=disturbed habitat

* Non-native species

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Attachment B
ANIMAL SPECIES OBSERVED OR DETECTED
LINDLEY TANK RESERVOIR

SCIENTIFIC NAME

COMMON NAME

INVERTEBRATE

Lepidoptera – Butterflies and Moths

Nymphalinae

Precis coenia

buckeye butterfly

Papilioninae

Papilio rutulus

Western tiger swallowtail

VERTEBRATES

Reptile

Phrynosomatidae – Earless, Spiny, Tree, Side-blotched, and Horned Lizards

Uta stansburiana

side-blotched lizard

Sceloporus occidentalis

Western fence lizard

Birds

Accipitridae – Hawks, Old World Vultures, Kites, Harriers, and Eagles

Buteo jamaicensis

red-tailed hawk

Columbidae – Doves and Pigeons

Zenaida macroura

mourning dove

Corvidae – Jays, Magpies, and Crows

Corvus corax

common raven

Emberizidae – Sparrows, Longspurs, and Emberiza Buntings

Pipilo crissalis

California towhee

Fringillidae – Finches

Carpodacus mexicanus

house finch

Mimidae – Mimic Thrushes

Mimus polyglottos

northern mockingbird

Parulidae – Songbirds and Warblers

Dendroica coronata

yellow-rumped warbler

Sylviidae

Polioptila californica californica†

Coastal California gnatcatcher

Trochilidae – Hummingbirds

Calypte anna

Anna's hummingbird

Tyrannidae – Flycatchers

Sayornis nigricans

black phoebe

Attachment B (cont.)
ANIMAL SPECIES OBSERVED OR DETECTED
LINDLEY TANK RESERVOIR

SCIENTIFIC NAME

COMMON NAME

VERTEBRATES (cont.)

Mammals

Canidae – Foxes, Wolves, and Relatives

Canis latrans

coyote (scat)

Geomyidae – Gophers

Thomomys sp.

pocket gopher (burrow)

Sciuridae – Squirrels, Chipmunks, and Marmots

Spermophilus beecheyi

California ground squirrel (burrow)

†Sensitive species

Attachment C
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
San Diego thornmint (<i>Acanthomintha ilicifolia</i>)	FT/SE CNPS List 1B.1 MHCP Narrow Endemic	Very low. Grassy openings in the chaparral or sage scrub, or near vernal pools, with friable or broken clay soils are the preferred habitat. This species occurs within Escondido; however, limited suitable habitat occurs within the project site.
San Diego ambrosia (<i>Ambrosia pumila</i>)	FE/-- CNPS List 1B.1	Very low. Found in a variety of habitats, including sage scrub, grasslands, wetlands, disturbed habitat, and sloped areas. Known in California from fewer than 20 occurrences. Critical habitat for this species occurs near Lake Hodges.
San Diego sagewort (<i>Artemisia palmeri</i>)	--/-- CNPS List 4.2	Low. Occurs in stream courses or moist slopes, often within coastal sage scrub and southern mixed chaparral. Minimal suitable habitat occurs within the project site.
San Diego milk-vetch (<i>Astragalus oocarpus</i>)	--/-- CNPS List 1B.2 CA Endemic	Very low. Occurs in open or disturbed areas of cismontane woodland and chaparral. Suitable habitat is limited within the project site.
Encinitas baccharis (<i>Baccharis vanessae</i>)	FT/SE CNPS List 1B.1 CA Endemic MHCP Narrow Endemic	None. Mature but relatively low-growing chaparral is the primary habitat. Also found in southern maritime and southern mixed chaparrals. Suitable habitat does not occur within the project site.
Thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	FT/SE CNPS List 1B.1 CA Endemic MHCP Narrow Endemic	None. Clay soils in vernal moist grasslands and vernal pool periphery are typical locales. Appropriate habitat does not occur within the project site.
Orcutt's brodiaea (<i>Brodiaea orcuttii</i>)	--/-- CNPS List 1B.1	None. Vernal moist grasslands, mima mound topography, and vernal pool periphery are preferred habitat. Occasionally will grow on streamside embankments in clay soils. Suitable habitat does not occur within the project site.
Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>)	--/-- CNPS List 1B.1	None. Occurs in seasonally moist (saline) grasslands and peripheral salt marsh. Although grasslands occur within the project site, appropriate soils do not.

Attachment C (cont.)
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>)	--/-- CNPS List 1B.1 CA Endemic	None. Prefers valley and foothill grasslands, particularly near alkaline locales. Although grasslands occur within the project site, appropriate soils do not.
Delicate clarkia (<i>Clarkia delicata</i>)	--/-- CNPS List 1B.2	Low. Prefers shaded areas or the periphery of oak woodlands and cismontane chaparral. Minimal suitable habitat occurs within the project site.
Summer holly (<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>)	--/-- CNPS List 1B.2	None. Mesic north-facing slopes in southern mixed chaparral are the preferred habitat of this large, showy shrub. Suitable habitat does not occur within the project site.
Palmer's goldenbush (<i>Ericameria palmeri</i> var. <i>palmeri</i>)	--/-- CNPS List 2.2	Very low. This sizeable shrub grows along coastal drainages, in mesic chaparral sites, or rarely in Diegan coastal sage scrub. Occasionally occurs as a hillside element (usually at higher elevations inland on north-facing slopes). Known in California from only 6 occurrences. Some suitable habitat occurs within the project site.
Engelmann oak (<i>Quercus engelmannii</i>)	--/-- CNPS List 4.2	None. Oak woodland and southern mixed chaparral. Larger oaks sometimes occur in vast savannah grasslands. In foothills, may also occur as a shrubby element within the chaparral.

*Refer to Attachment D for an explanation of status codes.

Attachment D
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

FEDERAL AND STATE CODES

U.S. Fish and Wildlife Service (USFWS)

FE	Federally listed endangered
FC	Federal candidate species (discussed in more detail, below)
FT	Federally listed threatened
BCC	Birds of Conservation Concern (discussed in more detail, below)

California Department of Fish and Wildlife (CDFW)

SE	State listed endangered
ST	State listed threatened
SSC	State species of special concern
Fully Protected	Fully Protected species refers to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

OTHER CODES AND ABBREVIATIONS

USFWS Federal Candidate (FC) Species

Federal candidate species are those for which the USFWS has on file “sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. [The USFWS] maintain[s] this list for a variety of reasons: to notify the public that these species are facing threats to their survival; to provide advance knowledge of potential listings that could affect decisions of environmental planners and developers; to provide information that may stimulate conservation efforts that will remove or reduce threats to these species; to solicit input from interested parties to help us identify those candidate species that may not require protection under the [Endangered Species Act] or additional species that may require the Act’s protections; and to solicit necessary information for setting priorities for preparing listing proposals” (Federal Register 70:90 [May 11, 2005]).

USFWS Birds of Conservation Concern (BCC)

This report from 2002 aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS’ highest conservation priorities and draw attention to species in need of conservation action. USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. The report is available online at <http://migratorybirds.fws.gov/reports/bcc2002.pdf>.

Attachment D (cont.)
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

OTHER CODES AND ABBREVIATIONS (cont.)

Multiple Habitat Conservation Program (MHCP) Covered Species (City of Escondido)

Species listed as MHCP covered species indicate that these species would receive formal protection and take authorization upon MHCP approval under the federal and state and Endangered Species acts.

MHCP Narrow Endemic

Narrow Endemic is a sensitivity rating given by the MHCP to indicate “those species considered so restricted in distribution and abundance that substantial loss of their populations or habitat might jeopardize the species’ continued existence or recovery.”

County of San Diego

Plant Sensitivity

- Group A Plants rare, threatened, or endangered in California and elsewhere
- Group B Plants rare, threatened, or endangered in California but more common elsewhere
- Group C Plants that may be quite rare but need more information to determine true rarity status
- Group D Plants of limited distribution and are uncommon but not presently rare or endangered

Animal Sensitivity

- Group 1 Animals that have a very high level of sensitivity either because they are listed as threatened or endangered or because they have very specific natural history requirements.

- Group 2 Animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific within their suitable habitat types.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County has take authorization within MSCP area.

Attachment D (cont.)

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

OTHER CODES AND ABBREVIATIONS (cont.)

California Native Plant Society (CNPS) Codes

Lists

List/Threat Code Extensions

1A = Presumed extinct.	.1 = Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.	.2 = Fairly endangered in California (20 to 80 percent occurrences threatened)
2 = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.	.3 = Not very endangered in California (less than 20 percent of occurrences threatened, or no current threats known)
3 = Distribution, endangerment, ecology, and/or taxonomic information needed. Some eligible for state listing.	A CA Endemic entry corresponds to those taxa that only occur in California.
4 = A watch list for species of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.	All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no threat code extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

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Attachment E
SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
INVERTEBRATES		
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE/--	None. Potential habitat includes vegetation communities with areas of low-growing and sparse vegetation. These habitats include open stands of sage scrub and chaparral, adjacent open meadows, old foot trails and dirt roads. The project site is outside the U.S. Fish and Wildlife Service (USFWS) Survey Area for this species.
Harbison dun skipper (<i>Euphyes vestris harbisoni</i>)	--/--	None. Occurs in riparian habitats and chaparral with narrow canyons or drainages, where perennial sources of water provide adequate habitat for the larval foodplant, San Diego sedge (<i>Carex spissa</i>). San Diego sedge not observed within the project site.
VERTEBRATES		
Reptiles and Amphibians		
Arroyo toad (<i>Anaxyrus californicus</i>)	FE/SSC	None. Found on banks with open-canopy riparian forest characterized by willows, cottonwoods, or sycamores; breeds in areas with shallow, slowly moving streams, but burrows in adjacent uplands during dry months. No suitable habitat occurs within the project site.
Orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	--/SSC	Moderate. Occurs in coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (<i>Reticulitermes</i> sp.). Suitable habitat occurs within the project site.
Coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	--/--	Moderate. Open coastal sage scrub, chaparral, and woodlands. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions. Suitable habitat occurs within the project site.
Coastal rosy boa (<i>Charina trivirgata</i>)	--/--	Low. Occurs in rocky Diegan coastal sage scrub. Minimal habitat occurs within the project site.

Attachment E (cont.)
SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Reptiles and Amphibians (cont.)		
Northern red-diamond rattlesnake (<i>Crotalus ruber ruber</i>)	--/SSC	Moderate. Occurs in dense chaparral or coastal sage scrub, often near large rocks or boulders. Habitat occurs within the project site.
Coronado skink (<i>Eumeces skiltonianus interparietalis</i>)	--/SSC	Moderate. Grasslands, coastal sage scrub, open chaparral, oak woodland, and coniferous forests, usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs (Zeiner et al. 1988). Potential habitat occurs within the project site.
San Diego horned lizard (<i>Phrynosoma coronatum</i>)	--/SSC	Moderate. Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites. Require native ants, especially harvester ants (<i>Pogonomyrmex</i> sp.), and are generally excluded from areas invaded by Argentine ants (<i>Linepithema humile</i>).
Western spadefoot (<i>Spea hammondi</i>)	--/SSC	None. Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; require temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (<i>Rana catesbiana</i>) or crayfish (<i>Procambarus</i> sp.). Appropriate habitat not observed within the project site.
Birds		
Burrowing owl (<i>Athene cunicularia</i>)	--/SSC (burrow sites)	Very low. Grassland or open scrub habitats. Appropriate habitat within the project site is minimal.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	--/WL	Moderate. Coastal sage scrub and open chaparral as well as shrubby grasslands. Some suitable habitat occurs within the project site.
Cooper's hawk (<i>Accipiter cooperii</i>)	--/WL	Moderate. Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests. No suitable nesting habitat occurs in the project site.

Attachment E (cont.)
SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Birds (cont.)		
San Diego cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>)	BCC/SSC	None. Occurs in cactus thickets. No suitable habitat occurs within the project site.
White-tailed kite (<i>Elanus leucurus</i>)	--/Fully Protected	Moderate. Riparian woodlands and oak or sycamore groves adjacent to grassland. Some suitable habitat occurs within the project site.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/SE	None. Breeds within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons. Migrants may be found among other shrubs in wetter areas. No suitable habitat occurs within the project site.
Yellow-breasted chat (<i>Icteria virens</i>)	--/SSC	None. Mature riparian woodland. No suitable habitat occurs within the project site.
White-faced ibis (<i>Plegadis chihi</i>)	--/WL	None. Nests in freshwater marshes and forages in shallow waters and wet, grassy habitats. No suitable habitat occurs in the project site.
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT/SSC	Present. Detected on site during vegetation surveys but was not present during protocol level surveys.
Western bluebird (<i>Sialia mexicana</i>)	--/--	Moderate. Montane coniferous and oak woodlands. Some suitable habitat occurs within the project site.
Barn owl (<i>Tyto alba</i>)	--/--	Moderate. Woodland habitats and open areas with trees or other structures that can offer shelter. The project site contains suitable habitat.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, BCC/SE	None. Occurs in mature riparian woodland. No suitable habitat occurs within the project site.

Attachment E (cont.)
SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals		
Pallid bat (<i>Antrozous pallidus</i>)	--/SSC	Very low. Deserts and canyons. Daytime roosts in buildings, crevices; less often in caves, mines, hollow trees, and other shelters. Project area lacks appropriate habitat.
Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>)	--/SSC	Low. Primarily associated with mature chaparral. It has, however, been trapped in mule fat scrub and is known to occur in coastal sage scrub.
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	FE/ST	Very low. Sparsely vegetated habitats of sagebrush or annual grasses. Minimal suitable habitat occurs within the project area.
Western yellow bat (<i>Lasiurus xanthinus</i>)	--/--	Low. Found in wooded areas and desert scrub. Roosts in foliage, particularly in thorny vegetation palms and other desert riparian habitats. Appropriate habitat on site is limited.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	--/SSC	Low. Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present. Limited suitable habitat occurs within the project area.
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	--/SSC	Moderate. Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca. Some suitable habitat occurs within the project area.
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	--/SSC	Very low. Desert habitat. Daytime roosts in rock outcrops. Project site lacks appropriate habitat.

Attachment E (cont.)
SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR/COMMENTS
VERTEBRATES (cont.)		
Mammals (cont.)		
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	--/SSC	Low. Rocky areas, in day they roost in rocky cliffs, sometimes caves, buildings, or tree holes. Minimal suitable habitat occurs within the project site.
American badger (<i>Taxidea taxus</i>)	--/SSC	Very low. Open plains and prairies, farmland, and sometimes edges of woods. Some suitable habitat occurs within the project site.

*Refer to Appendix D for an explanation of status codes.

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January 10, 2013

MWHA-01

Ms. Susie Tharratt
U.S. Fish and Wildlife Service
6010 Hidden Valley Rd.
Carlsbad, California 92011

Subject: Year 2012 Coastal California Gnatcatcher Survey Report for the Lindley Tank Reservoir Project

Dear Ms. Tharratt:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey conducted for the coastal California gnatcatcher (*Polioptila californica californica*; [CAGN]) by HELIX Environmental Planning, Inc. (HELIX) for the City of Escondido's (City's) proposed Lindley Tank Reservoir project. This report describes the methods used to perform the survey and the results. It is being submitted to the USFWS as a condition of HELIX's Threatened and Endangered Species Permit TE778195.

PROJECT LOCATION

The 10.8-acre project site is located east of State Route 15, north of El Norte Parkway, west of north Ash Street, north of Leslie Lane, off Hubbard Avenue in the City of Escondido, California (Figures 1, 2, and 3). The project site is located within the unincorporated County of San Diego (County) immediately adjacent to the City of Escondido (City). The project site is situated in Township 12 South, Range 2 West on the U.S. Geological Survey Valley Center quadrangle map, APN 227-101-58 (Figure 2).

PROJECT DESCRIPTION

The City would like to demolish the existing steel tank and replace it with two tanks with a combined storage capacity of 2.5 to 3.0 million gallons (mg). The City would like to increase the high water level of the replacement tanks by 3 to 4 feet, if feasible. The two tanks would be piped to allow isolation of one tank for maintenance shutdown while leaving the other tank in service. Replacement tanks shall be prestressed and post-tensioned concrete reservoirs, per

AWWA D110. The City's preference is for the tanks to be partially or fully buried. The existing steel tank is to remain in service until one of the two replacement tanks can be put into service.

METHODS

The survey consisted of three site visits that were performed by HELIX biologist Jason Kurnow (TE 778195) in accordance with the current (1997) USFWS protocol. The CAGN survey area encompassed approximately 10.1 acres of potential CAGN habitat. The survey was conducted on foot (Figure 3) with the aid of binoculars. Taped gnatcatcher vocalizations were played for approximately 10 seconds at approximate 5-minute intervals, unless gnatcatchers were heard before playing the tape. In those instances, the tape was not played. The tape also was not played after a gnatcatcher was detected. Table 1 details the survey locations, times, and conditions.

Table 1 SURVEY INFORMATION				
DATE	BIOLOGIST	TIME (start/stop)	ACRES (ac) SURVEYED/ SURVEY RATE (ac per hour)	WEATHER CONDITIONS (start/stop)
11/20/12	Jason Kurnow Erica Harris (supervised)	0745/1000	10.1 ac/4.49 ac	55.0°F, 0% cloud cover, wind 0-1mph/ 73.0°F, 0% cloud cover, wind 1-3mph.
11/29/12	Jason Kurnow	0745/0935	10.1 ac/5.52 ac	59.8°F, 100% cloud cover, wind 1-3mph/ 64.2°F, 100% cloud cover, wind 1-3mph.
12/6/12	Jason Kurnow	0800/1000	10.1 ac/5.05 ac	58.4°F, 20% cloud cover, wind 1-3mph/ 61.2°F, 45% cloud cover, wind 1-3mph.

VEGETATION COMMUNITIES

Three vegetation communities occur on the site: Diegan coastal sage scrub, non-native grassland, and disturbed habitat. In addition, the site contains developed land (Figure 3).

Diegan Coastal Sage Scrub (DCSS)

DCSS occurs on xeric sites characterized by shallow soils and steep slopes. Dominated by drought-deciduous shrub species with relatively shallow root systems and open canopies, coastal sage scrub communities often contain a substantial herbaceous component. Characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), lemonadeberry (*Rhus integrifolia*), and laurel sumac (*Malosma laurina*).

Within the survey area, this community consisted primarily of California sagebrush, California buckwheat, and black sage. Patches of laurel sumac occurred throughout this community in low densities as well.

Non-native Grassland (NNG)

Non-native grassland is a dense-to-sparse cover of annual grasses, often associated with native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Most of the introduced annual species that comprise non-native grassland originated from the Mediterranean region of Europe, an area with a climate similar to that of California and a long history of agriculture. Characteristic species within this vegetation community on the project site include oats (*Avena* spp.), red brome (*Bromus madritensis* ssp. *rubens*), and wild mustard (*Brassica* sp.).

Disturbed Habitat (DH)

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

Developed Land (DEV)

Developed land exists where permanent structures and/or pavement has been placed (preventing the growth of vegetation) or where landscaping is clearly tended and maintained.

RESULTS

The coastal California gnatcatcher (*Polioptila californica californica*) was not observed or detected during the course of this presence/absence survey.

Letter to Ms. Susie Tharratt
January 10, 2013

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CERTIFICATION

I certify that the information in this survey report and enclosed exhibit fully and accurately represents my work.

Please contact me at (619) 462-1515 if you have any questions.

Sincerely,



Jason Kurnow
Biologist

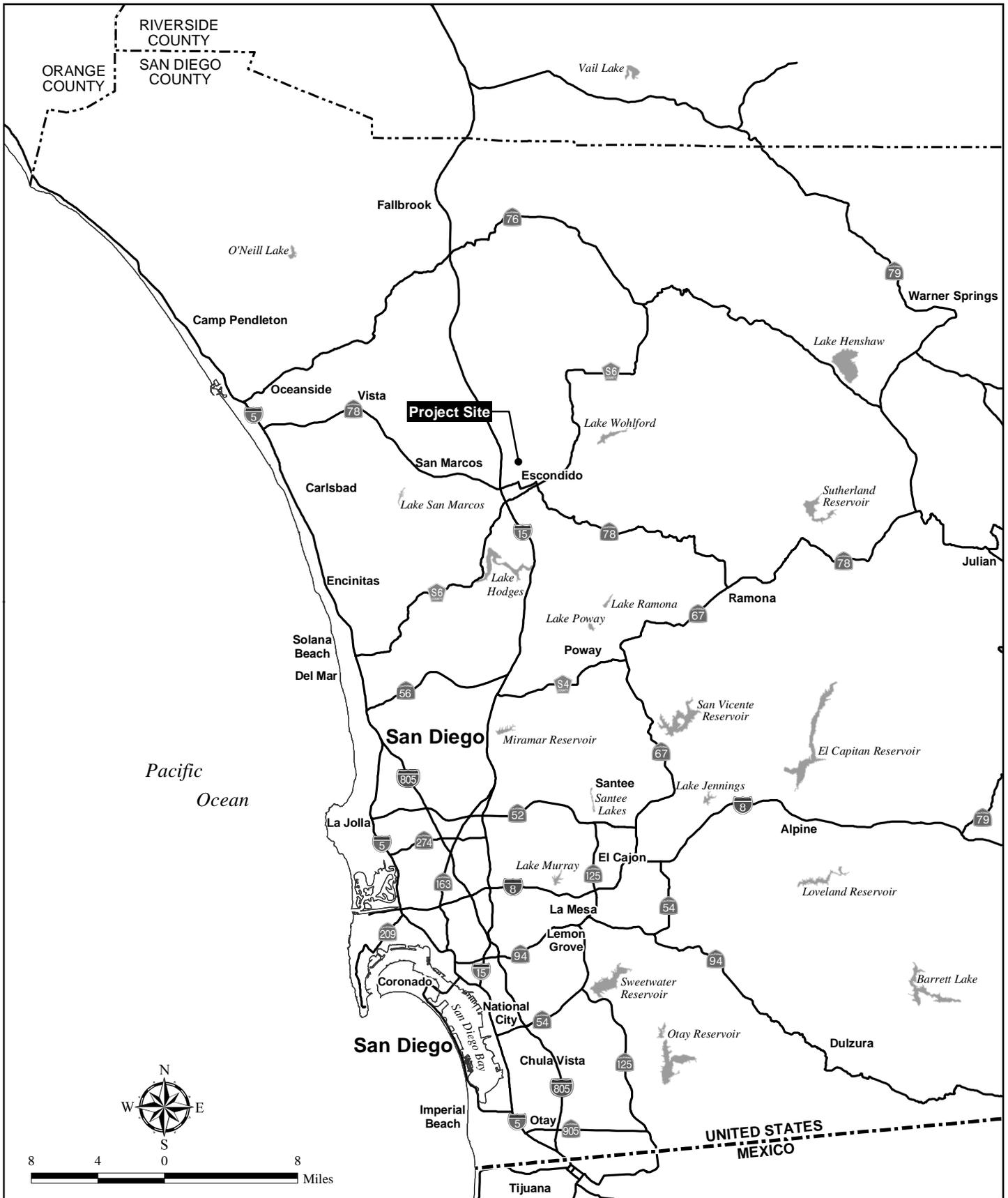
Enclosures:

- Figure 1 Regional Location Map
- Figure 2 Project Location
- Figure 3 Vegetation and Sensitive Resources

REFERENCES

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, 156 pp.

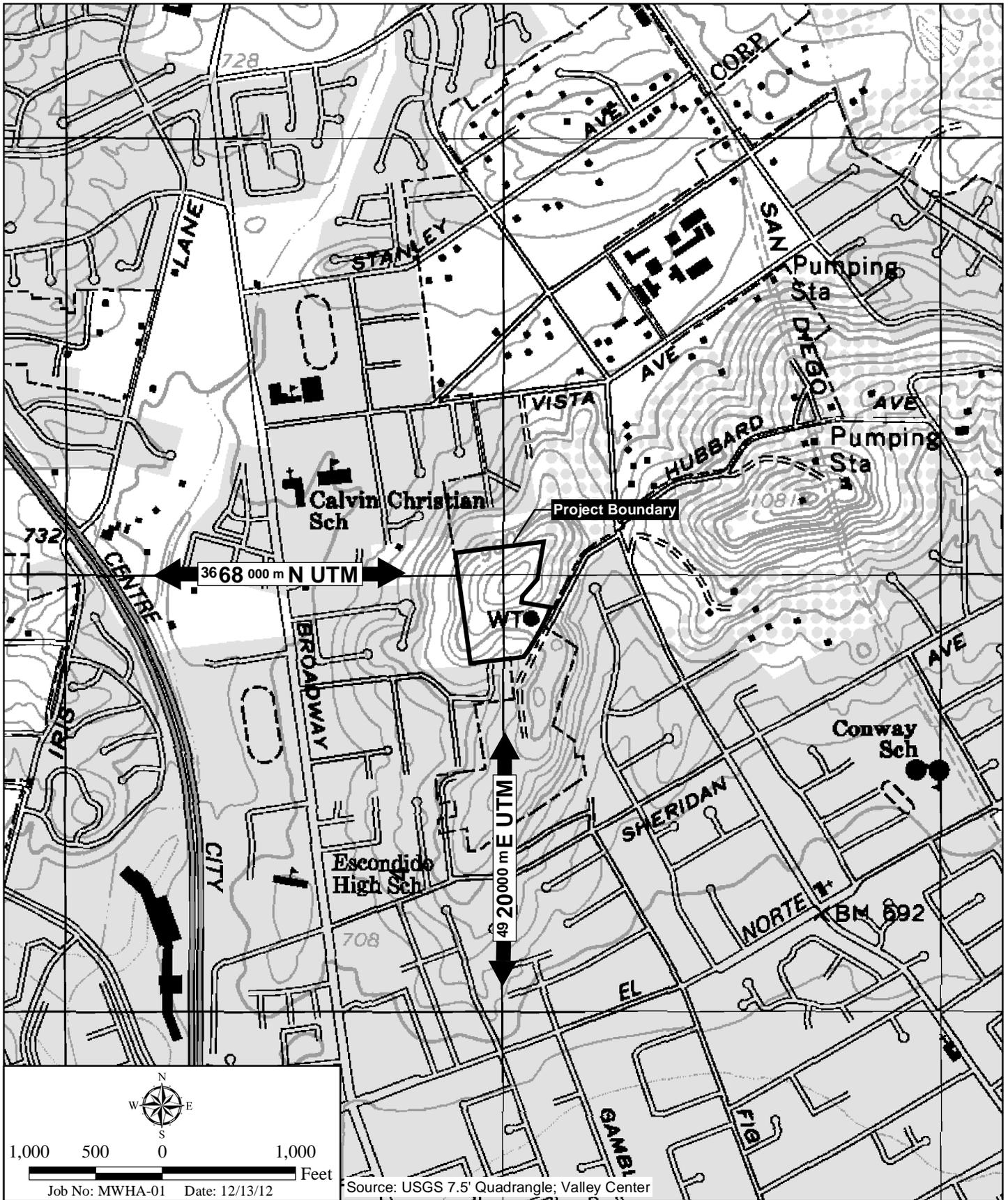
U.S. Fish and Wildlife Service. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. 5pp.



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Regional Location Map

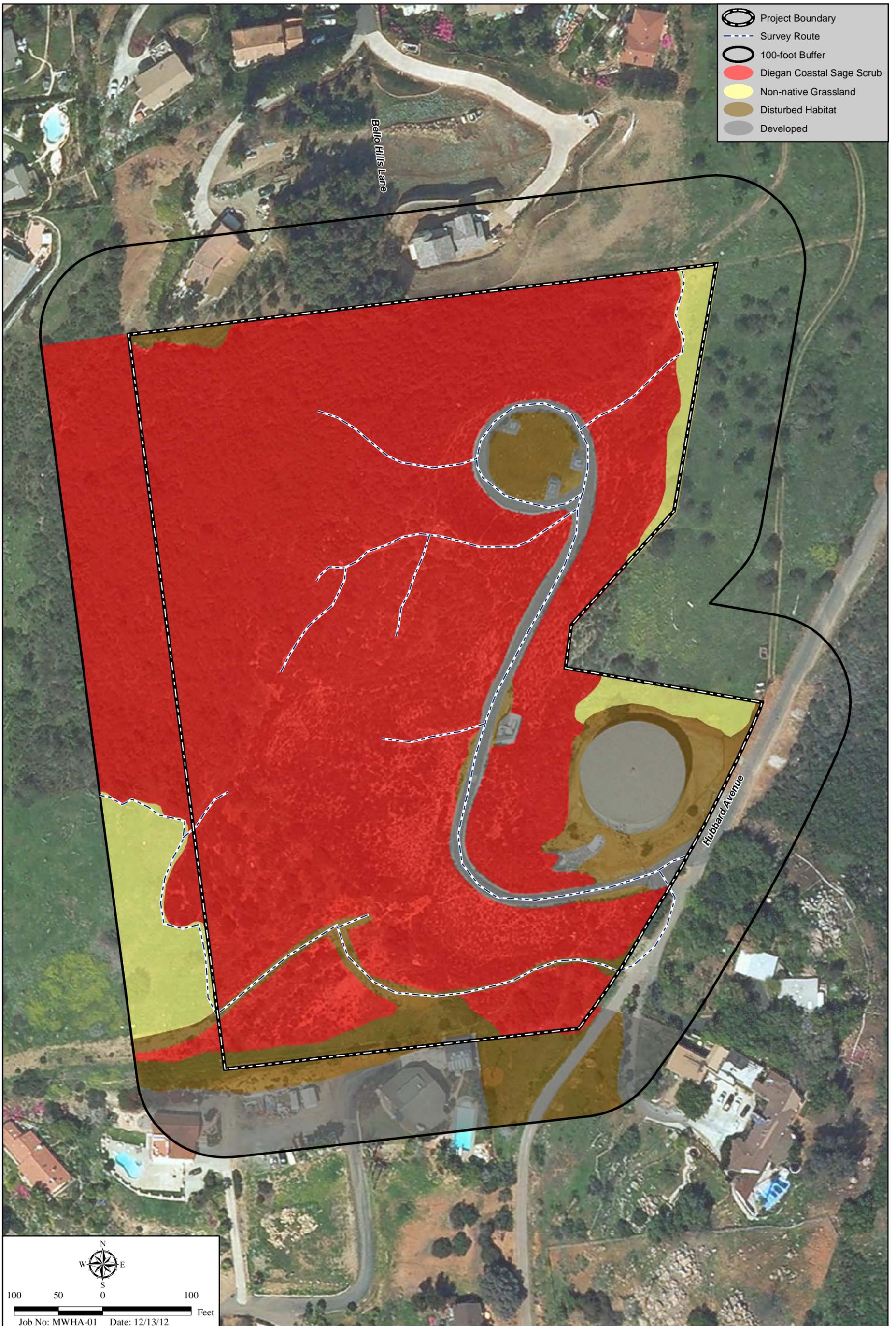
LINDLEY TANK



Project Location Map

LINDLEY TANK

Figure 2



Vegetation and Sensitive Resources

LINDLEY TANK

Figure 3