

DOCKET

11-AFC-3

DATE OCT 24 2011

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QUAIL BRUSH GENCO, LLC

9405 Arrowpoint Boulevard
Charlotte, NC 28273

October 24, 2011

Mr. Robert Olgesby
Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Quail Brush Generation Project Application for Certification

Dear Mr. Olgesby:

Pursuant to the provisions of Title 20, California Code of Regulations, Quail Brush Genco, LLC hereby submits the Quail Brush Generation Project Application for Certification Data Adequacy Supplement. The project comprises a nominal 100 MW natural gas-fired peaking power facility located within the City of San Diego.

This data adequacy supplement was compiled in response to the Energy Commission's Data Adequacy Recommendation (11-AFC-3) dated September 28, 2011. This document provides the additional information necessary to fulfill the Application for Certification data adequacy requirements for the following technical areas:

- Air Quality
- Alternatives
- Biological Resources
- Cultural Resources
- Paleontological Resources
- Project Overview
- Traffic and Transportation
- Transmission System Design

If you have any questions, please contact me at RickNeff@Cogentrix.com.

Regards,



C. Richard Neff
Vice President

cc: Gary L. Palo
Ella Foley Gannon, Esq.

Air Quality

Air Quality: Appendix B(g)(1)

Information required:

Please provide an evaluation of the project's cumulative air quality impacts.

Response:

The cumulative impacts assessment methodology, which is summarized in Appendix F.8- Cumulative Impacts Analysis Protocol, includes the applicable sources within an 8-mile radius of the proposed Project site that meet the following criteria.

1. Projects that have recently commenced operations whose emissions may not be reflected in the ambient monitoring background data, i.e., commenced operations after January 2010.
2. Projects that have filed for air pollution permits to construct which have not been issued, but that are reasonably anticipated to be issued, and subsequently constructed and operated.
3. Foreseeable (reasonably known) projects that have not, to date, filed any applications for development.

Historically, the CEC has reviewed the inventory prior to the commencement of the modeling analysis in order to remove sources that the CEC does not typically consider in this type of analysis. For example, emergency equipment is not included in the cumulative modeling inventory. Because the local APCD often requires a longer lead timeframe than the application schedule allows, the actual cumulative modeling assessment is often supplied as a post data-adequacy requirement.

Once the applicant receives the cumulative source inventory from the APCD, the Applicant, in cooperation with CEC staff, will finalize the listing of sources to be included, and the cumulative modeling and analysis will be prepared and submitted for review and comment.

Based on the protocol in Appendix F.8, the data identified in items 1 through 3 above, has been requested from the San Diego APCD.

Thus, based on past CEC filings, the Applicant believes that the cumulative analysis protocol has met the needs of the data adequacy requirements.

Air Quality: Appendix B(g)(8)(a)

Information required:

Please provide the permit application completeness letter from the San Diego Air Pollution Control District.

Response:

Per the San Diego APCD rules, the AFC document serves as the Application for the Authority to Construct permit at the District level. The AFC document, which included the APCD permit

application forms, was filed with the Air District on September 13, 2011. This submittal included the payment of the required fees as calculated by both the District and the Applicant. A permit application completeness letter from the San Diego APCD was sent on October 4, 2011; the application was deemed incomplete by the APCD. A copy of the letter is provided in Attachment A.1. The Applicant is working with the APCD to resolve the items listed in their letter; a preliminary summary of the Applicant's response is shown in Attachment A.2. It is noted that the specific response will vary from that provided in the attachment pending the outcome of the Applicant and the APCD's discussions.

The current project contact at the San Diego APCD is as follows:

Mr. Art Carbonell, AQ Engineer
San Diego APCD
10124 Old Grove Road
San Diego, Ca. 92131
(858) 586-2741
arthur.carbonell@sdcounty.ca.gov

Alternatives

Alternatives: Appendix B(f)(1)

Information Required:

Please provide a discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives.

Response:

As explained in the AFC, with implementation of reasonable and feasible mitigation measures, there will be no significant effects from the proposed Project. The Applicant, however, provides this discussion of the infeasibility of alternative technologies, additional discussion regarding feasible alternative sites, and the potential impacts of the feasible alternative sites in an effort to fully address Staff's request. The evaluation of the comparative merits of the alternatives is included in Table 3.4-2 and the response to Alternatives: Appendix B(f)(2) below.

Infeasible Alternative Technologies

Based on the objectives described in the AFC, Section 3.1 Project Objectives, and 3.4.17 Comparison of Alternatives, the Applicant determined that the No Project Alternative is not feasible when considering the environmental, engineering and economic merits of the Project. It must also be noted that the Request for Proposals (RFP) prepared by San Diego Gas and Electric Company (SDG&E) was responded to by numerous parties, with each respondent proposing a technology or mix of technologies that they believed would meet the needs of the RFO. Simple cycle turbine technology was rejected by SDG&E as not adequate to meet its power demands for providing flexible and efficient peaking and load-shaping power (see Section 3.5.1.2, Conventional Simple-Cycle Combustion Turbine Processes, of the AFC). In addition, the Wärtsilä engine and natural gas fuel supply was specified by SDG&E in the Power Purchase Tolling Agreement (PPTA) with the Applicant. Therefore, alternative power generation technologies and alternative fuel technologies are not technically feasible for this Project.

The Applicant determined that alternative power generation technologies did not meet the project objectives and screening criteria as described in the AFC, Section 3.5.1.12 Comparison of Power Generation Technologies. The Applicant determined that fuel technology alternatives did not meet the project objectives as described in the AFC, Section 3.5.2 Fuel Technology Alternatives. The Applicant determined that NO_x control alternatives did not meet the project objectives as described in the AFC, Section 3.5.3 NO_x Control Alternatives. The Applicant determined that heat rejection alternatives did not meet the project objectives as described in the AFC, Section 3.5.4 Heat Rejection Alternatives as Wärtsilä does not offer another cooling option with their large reciprocating engines.

Feasible Alternatives

Section 3.3.2 of the AFC described three site alternatives that were deemed infeasible due to lack of site control. Upon obtaining further feedback from the landowners since the AFC was filed, there is reason to believe that the parcels could potentially be acquired; therefore although

the Applicant does not currently have site control for the alternative sites, site control is possible. All three alternatives would feasibly obtain most of the basic objectives of the Project. The Project will comply with all applicable LORS, and will help to meet the local energy capacity and reliability needs of the area and will result in environmental impacts that are less than significant. Where needed to assure that environmental impacts remain below significance thresholds, mitigation has been built in to the Project design which is described in the AFC.

Each site was evaluated on the basis of the AFC environmental areas, and estimated engineering and economic costs associated with the various perceived mitigation measures. Table 3.4-2 summarizes institutional factors, engineering/construction feasibility, length of linear features, and whether a site is feasible or not from an environmental impacts perspective as compared to the proposed Project.

Table 3.4-2 Comparison of the Proposed Project and Alternatives

Characteristic	Proposed Project	Alternative A	Alternative B	Alternative C
Institutional Factors				
Site control	Yes	No	No	No
Ability to obtain required permits	Feasible	Less feasible	Less feasible	Less feasible
Engineering/Construction Feasibility				
Underground transmission line required	Yes	Yes	Yes	No
New power plant access road construction required	Yes	Yes	Yes	Yes
Equal or more difficult engineering constraints for new power plant access road than proposed project	n/a	Yes	Yes	Yes
Equal or greater site grading requirements than proposed project	n/a	Yes	Yes	Yes
Equal or greater engineering costs than proposed project	n/a	Yes	Yes	Yes
Length of Linear Features				
Length of power plant access road (feet)	2,000	4,800	6,400	8,700
Length of gas lateral (feet)	2,032	4,764	6,416	8,669
Length of gen tie (feet)	5,600	2,200	800	1,500
Total length of linear features (feet)	9,632	11,764	13,616	18,869
Environmental Factors¹				
Cultural resources impacts with mitigation	-	Greater than	Greater than	Greater than
Land use impacts with mitigation	-	Equal to	Equal to	Equal to
Noise impacts with mitigation	-	Equal to	Equal to	Equal to
Traffic and transportation impacts with mitigation	-	Greater than	Greater than	Greater than
Visual resources impacts with mitigation	-	Equal to	Greater than	Greater than
Socioeconomics impacts with mitigation	-	Equal to	Equal to	Equal to
Air quality impacts with mitigation	-	Greater than	Equal to	Equal to
Public health impacts with mitigation	-	Equal to	Equal to	Equal to
Hazardous materials handling impacts with mitigation	-	Equal to	Equal to	Equal to

Characteristic	Proposed Project	Alternative A	Alternative B	Alternative C
Worker health and safety impacts with mitigation	-	Equal to	Equal to	Equal to
Waste management impacts with mitigation	-	Equal to	Equal to	Equal to
Biological resources impacts with mitigation	-	Greater than	Greater than	Greater than
Water resources impacts with mitigation	-	Equal to	Equal to	Equal to
Agriculture and soils impacts with mitigation	-	Equal to	Equal to	Equal to
Paleontological resources impacts with mitigation	-	Equal to	Equal to	Equal to
Geological hazards and resources impacts with mitigation	-	Equal to	Equal to	Equal to

¹ Environmental impacts of alternative sites categorized as greater than, equal to, or less than the proposed Project.

Alternative A

The Applicant does not currently have site control for Alternative A, however upon obtaining further feedback from the landowners; there is reason to believe that the parcel could potentially be acquired. Alternative A would result in greater impacts to air quality and transportation than the proposed Project, but may result in a slight reduction in the impact to cultural resources and biological resources for construction of the gen tie line.

Regarding length of linear features, the length of the power plant access road for Alternative A would be 2,800 feet longer than the proposed Project. The length of the gas lateral for Alternative A would be 2,732 feet longer than the proposed Project. The length of the gen tie line for Alternative A would be 3,400 feet shorter than the proposed Project and would substantially lessen impacts over the proposed Project. Environmental impacts associated with the construction of a longer gen tie (e.g., increased surface disturbance and potential disturbance of sensitive biological and cultural resources) would be decreased if Alternative A were constructed. However, the longer power plant access road and gas lateral in Alternative A would result in an increase in potential impacts to biological and cultural resources. As the total length of linear features for Alternative A is greater than the proposed Project, the impacts to biological and cultural resources from Alternative A would be slightly greater than the proposed Project.

Alternative A presents greater difficulty than the proposed Project regarding institutional and environmental factors. Air quality impacts would be greater because Alternative A would be located next to an existing 4.5 MW landfill gas combustion facility (with two large flares) that operates 24 hours a day 7 days a week. The cumulative effects of closely situated Alternative A and the landfill gas facility would be greater than if the Project were located elsewhere. As a result of the increased air quality impacts, air permitting would be more difficult for Alternative A than the proposed Project.

Transportation impacts during construction would be greater for Alternative A over the proposed Project because more construction traffic would be necessary to construct the longer access road over steeper terrain. Additionally, as the turning radius for the access road would be very difficult to engineer; the transport of materials to Alternative A would be more difficult than the proposed Project, which may result in more traffic impacts.

There are no advantages regarding engineering/construction feasibility with Alternative A as compared to the proposed Project. Alternative A would require an underground transmission line and a new power plant access road as would the proposed Project. From an engineering perspective, Alternative A presents difficulties as the power plant access road would be longer and would have to traverse steeper terrain. Alternative A would be subject to equal or greater site grading requirements and equal or greater engineering costs than the proposed Project.

Alternative B

Alternative B presents greater difficulty than the proposed Project regarding institutional and environmental factors. The Applicant does not currently have site control for Alternative B; however upon obtaining further feedback from the landowners, there is reason to believe that the parcel could potentially be acquired. Alternative B would result in greater impacts to visual resources and transportation than the proposed Project, but may result in a slight reduction in the impact to cultural resources and biological resources for construction of the gen tie line.

Regarding length of linear features, the length of the power plant access road for Alternative B would be 4,400 feet longer than the proposed Project. The length of the gas lateral for Alternative B would be 4,384 feet longer than the proposed Project. The length of the gen tie line for Alternative B would be 4,800 feet shorter than the proposed Project and would substantially lessen impacts in comparison with the proposed Project. Environmental impacts associated with the construction of a longer gen tie (e.g., increased surface disturbance and potential disturbance of sensitive biological and cultural resources) for the proposed Project would be decreased if Alternative B were constructed, however the proposed Project impacts to biological and cultural resources are less than significant. However, the longer power plant access road and gas lateral in Alternative B would result in an increase in potential impacts to biological and cultural resources. As the total length of linear features for Alternative B is greater than the proposed Project, the impacts to biological and cultural resources from Alternative B would be slightly greater than the proposed Project.

Visual impacts would be greater for Alternative B over the proposed Project. Recreational users of Mission Trails Park and travelers on Highway 52 would have a nearly unobstructed view of the Alternative B site from where Highway 52 crosses Spring Canyon.

Due to the greater amount of land disturbance within the Mission Trails Park expansion plan boundary resulting from the longer power plant access road and gas lateral and the increased visual impacts when compared to the proposed Project, the Applicant would expect more push back from the City of San Diego with regard to Alternative B, and therefore, the ability to obtain required permits for this alternative would be less feasible than the proposed Project.

Transportation impacts during construction would be greater for Alternative B over the proposed Project because more construction traffic would be necessary to construct the longer access road over steeper terrain. The access road to the site would present engineering and logistical challenges. The access road grade cannot be greater than 6 percent per SDG&E requirements. Due to the extremely steep slope on this parcel; engineering an access road to these specifications would be difficult in this terrain. Additionally, although construction of the access road may be feasible, the Applicant may not be able to obtain an easement for the access road. The costs of constructing the access road for Alternative B (including obtaining the easement and engineering the access road) would likely be greater than the costs of constructing the access road for the proposed Project.

There are no advantages regarding engineering/construction feasibility with Alternative B as compared to the proposed Project. Alternative B would require an underground transmission line and new access road as would the proposed Project. From an engineering perspective, Alternative B presents difficulties as the power plant access road would be longer and would have to traverse steeper terrain. Alternative B would be subject to equal or greater site grading requirements and equal or greater engineering costs than the proposed Project.

Alternative C

Alternative C presents greater difficulty than the proposed Project regarding institutional and environmental factors. The Applicant does not currently have site control for Alternative C; however upon obtaining further feedback from the landowners, there is reason to believe that the parcel could potentially be acquired. Alternative C would result in greater impacts to visual resources and transportation than the proposed Project, but may result in a slight reduction in the impact to cultural resources and biological resources for construction of the gen tie line.

Regarding length of linear features, the length of the power plant access road for Alternative C would be 6,700 feet longer than the proposed Project. The length of the gas lateral for Alternative C would be 6,637 feet longer than the proposed Project. The length of the gen tie line for Alternative C would be 4,100 feet shorter than the proposed Project and would substantially lessen impacts over the proposed Project. Environmental impacts associated with the construction of a longer gen tie (e.g., increased surface disturbance and potential disturbance of sensitive biological and cultural resources) would be decreased if Alternative C were constructed. However, the longer power plant access road and gas lateral in Alternative C would result in an increase in potential impacts to biological and cultural resources. As the total length of linear features for Alternative C is greater than the proposed Project, the impacts to biological and cultural resources from Alternative C would be slightly greater than the proposed Project. No underground transmission line would be required for Alternative C; in this respect, Alternative C would substantially lessen the effects over the proposed Project. Environmental impacts associated with construction of the underground transmission line (e.g., surface disturbance and potential disturbance of sensitive biological and cultural resources) would be avoided if Alternative C were constructed. However, the proposed Project impacts to biological and cultural resources are less than significant.

Visual impacts would be greater for Alternative C as compared to the proposed Project. Recreational users of Mission Trails Park and travelers on Highway 52 would have a nearly unobstructed view of the Alternative C site from where Highway 52 crosses Spring Canyon.

Due to the greater amount of land disturbance within the Mission Trails Park expansion plan boundary resulting from the longer power plant access road and gas lateral and the increased visual impacts when compared to the proposed Project, the Applicant would expect more push back from the City of San Diego with regard to Alternative C, and therefore, the ability to obtain required permits for this alternative would be less feasible than the proposed Project.

Transportation impacts during construction would be greater for Alternative C over the proposed Project because more construction traffic would be necessary to construct the longer access road over steeper terrain. The access road to the site would present engineering and logistical challenges. The access road grade cannot be greater than 6 percent per SDG&E requirements. Due to the extremely steep slope on this parcel, engineering an access road to these specifications would be difficult in this terrain. Additionally, although construction of the access

road may be feasible, the Applicant may not be able to obtain an easement for the access road, though it is feasible. The costs of constructing the access road for Alternative C (including obtaining the easement and engineering the access road) would likely be greater than the costs of constructing the access road for the proposed Project.

The elimination of the underground transmission line is the only advantage from the engineering/construction feasibility perspective of Alternative C as compared to the proposed Project. Alternative C would require a new power plant access road as would the proposed Project. Alternative C presents difficulties as the power plant access road would be longer and would have to traverse a steeper terrain. Alternative C would be subject to equal or greater site grading requirements and equal or greater engineering costs than the proposed Project.

Alternatives: Appendix B(f)(2)

Information Required:

Please provide the comparison of engineering, economic, and environmental merits of feasible alternatives to the project.

Response:

Alternatives A, B and C were determined to feasibly attain most of the basic objectives of the project. Regarding environmental factors, air quality impacts would be greater and permitting would be more difficult for Alternative A than the proposed Project. Transportation impacts would be greater for all alternatives than the proposed Project. Visual impacts would be greater for Alternatives B and C than the proposed Project. The permitting requirements for all three alternatives would be less feasible than the proposed Project.

Regarding engineering/construction feasibility, the engineering/construction requirements for all alternatives are greater than or equal to the proposed Project for new power plant access road construction, engineering constraints for new power plant access road, site grading requirements, and engineering costs. The proposed Project and Alternatives A and B require construction of an underground transmission line, but Alternative C does not.

Regarding lengths of linear features, the lengths of the gen tie lines for all three alternatives are shorter than the proposed Project. In this respect, all alternatives would reduce impacts over the proposed Project because environmental impacts associated with the construction of a longer gen tie (e.g., increased surface disturbance and potential disturbance of sensitive biological and cultural resources) would be decreased if any of the alternative sites were constructed. However, the lengths of the power plant access road and gas lateral for all three alternatives are longer than the proposed Project. The overall impacts to biological and cultural resources from all three alternatives would be slightly greater than the proposed Project.

Biological Resources

Biological Resources: Appendix B(g)(1)

Information required:

Please provide a map of the vegetation communities of the 1-mile buffer around the project site and out to 1,000 feet of the outer edge for proposed linear facilities. Also provide a discussion of these areas.

Response:

Exhibit 1 has been prepared by Michael Brandman Associates (MBA) and provides a map of the vegetation communities of the 1-mile buffer around the Project site and out to 1,000 feet of the outer edge for proposed linear facilities. Exhibit 1 was developed using the City of San Diego's detailed vegetation map, which includes the 1-mile buffer area in combination with ground truthing at selective areas around the Project site. There are a large number of parcels within the buffer areas. Not all of these parcels were visited for ground truthing as MBA did not have permission to access them. The letters from property owners who granted permission to survey on private land are provided in Attachment B.1 of this Supplement. The vegetation mapping and ground truthing provided sufficient information to determine direct, indirect, and cumulative impacts to the surrounding 1-mile buffer area, as discussed below.

The area within the 1-mile buffer of the Project site contains similar habitat to that found within the Project site, which includes rolling hills with north to south trending ridge-lines and canyons. Elevation limits within the 1-mile buffer range from 300 to 930 feet above mean sea level. The area within 1,000 feet of the linear facilities ranges in elevation from 300 to 730 feet above mean sea level. The vegetation communities associated with the Project site are described in the AFC from page 4.12-11 through 4.12-16. The following is a brief description of the additional vegetation communities observed in the 1,000-foot buffer area surrounding the linear components that was not included in the original AFC submittal.

Southern Mixed Chaparral (37120)

This plant community is similar to Northern Mixed Chaparral (37110) but is typically not as tall (1.5-3m) or dense. Occasionally, with patches of bare soil, it also forms a mosaic with Diegan Coastal Sage Scrub (32500). Southern Mixed Chaparral can be divisible into Granitic (37121) and Mafic (37122) subtypes based on substrate, but floristic distinctions between these two subtypes remain unknown.

Similar to Northern Mixed Chaparral (37110), this plant community is found in areas with somewhat lower precipitation and more moderate temperatures. This plant community is often found adjacent to and on moister sites than Chamise Chaparral (37200).

Characteristic Species that occur within the plant community include Toyon (*Adenostoma fasciculatum*), Eastwood's manzanita (*Arctostaphylos glandulosa*), white fairy lantern (*Calochortus albus*), woolly-leaved ceanothus (*Ceanothus tomentosus olivaceus*), bush poppy (*Dendromecon rigida*), deer weed (*Lotus scoparius*), scrub oak (*Quercus dumosa*), sugar bush (*Rhus ovata*), laurel sumac (*Rhus laurina*), white sage (*Salvia apiana*), and Our Lord's Candle (*Hesperoyucca whipplei*).

General distribution is similar to Northern Mixed Chaparral (37110) but relatively infrequent in northern San Diego compared to its abundance in southern San Diego. It is also the predominant chaparral type in Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties. This plant community is located north of the Project site. At this point, the higher elevation provides more moisture availability and Chamise Chaparral converts to Southern Mixed Chaparral.

Southern Riparian Scrub (63300)

Southern Riparian Scrub vegetation is a generalized plant community that occurs in association with watercourses and water bodies. The representative plant species are typically well adapted to a hydrological regime ranging from semi-permanent inundation to occasional soil saturation on or near the surface during at least a portion of the growing season. This community typically consists of a relatively dense tangle of broad-leaved, winter-deciduous riparian thickets typically dominated by willow species.

The Southern Riparian Scrub receives sufficient flow to support a cluster of arroyo willow (*Salix lasiolepis*) and cottonwood (*Populus fremontii*) trees. This community occurs south of the Project site along the San Diego River.

Coastal Sage-Chaparral Scrub (37600)

This plant community contains a mix of sclerophyllous, woody chaparral species and drought-deciduous, malacophyllous sage scrub species. It is often described as a post-fire successional community and is a catch-all type intermediate between Coastal Scrubs (32000) and chaparrals (37000).

Characteristic Species that occur within the plant community include chamise (*Adenostoma fasciculata*), coastal sage (*Artemisia californica*), black sage (*Salvia mellifera*), and poison oak (*Toxicodendron diversilobum*).

It is often found on the outer Coast Ranges and Peninsular Range from the Big Sur Coast south to Baja. Within the 1-mile buffer area, this vegetation community is limited to a single area north of the Project site that contains a mix of coastal sage scrub and southern mixed chaparral.

Southern Arroyo Willow Riparian Forest

Southern Arroyo Willow Riparian Forest is similar to Southern Riparian Scrub, except the vegetation is much more mature and is dominated by a dense stand of arroyo willows (*Salix lasiolepis*). The representative plant species are typically well adapted to a hydrological regime ranging from semi-permanent inundation to occasional soil saturation on or near the surface during at least a portion of the growing season. This community typically consists of a relatively dense tangle of arroyo willow with little to no understory.

The Southern Arroyo Willow Riparian Forest receives sufficient flow to support a cluster of arroyo willow (*Salix lasiolepis*) with a sparse understory of scattered mule fat (*Baccharis salicifolia*). This community occurs east of the Project site and north of the San Diego River along the edges of the Santee Recreation Lakes.

Southern Cottonwood-willow Riparian Forest

Southern Cottonwood-willow Riparian Forest consists of tall, open, broad-leaved winter-deciduous trees dominated by cottonwood (*Populus fremontii*) and several willow species and is

similar to Central Coast Cottonwood-Sycamore Riparian Forest (61210); although, apparently with less coast live oak (*Quercus agrifolia*) or alder (*Alnus rhombifolia*). The understory of this community usually consists of shrubby willows.

This community occurs around sub-irrigated and frequently overflowed lands along rivers and streams. The dominant species require moist, bare mineral soil for germination and establishment. This is provided after flood waters recede, leading to uniform-aged stands in this seral type.

Characteristic species that occur within the plant community include: mugwort (*Artemisia douglasiana*), wildlife cucumber (*Marah macrocarpus*), western sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and nettle (*Urtica holosericea*).

This community occurs along perennially wet stream reaches of the Transverse and Peninsular Ranges, from Santa Barbara County south to Baja California Norte, and east to the edge of the deserts. This community occurs along the portion of Sycamore Creek that occurs within the existing golf course area southeast of the Project in the City of Santee.

Southern Coast Live Oak Riparian Forest

Southern Coast Live Oak Riparian Forest is open to locally dense evergreen sclerophyllous riparian woodlands dominated by coast live oak (*Quercus agrifolia*). This community appears to be richer in herbs and poorer in understory shrubs than other riparian communities. It is similar to and questionably distinct from Central Coast Live Oak Riparian Forest (61220).

This community often occurs along bottomlands and outer flood plains along larger streams, on fine-grained, rich alluvium.

Characteristic species that occur within the plant community include coast live oak, big leaf maple (*Acer macrophyllum*), mugwort, toyon, wild cucumber, heart-leaved keckiella (*Keckiella cordifolia*), wild honey suckle (*Lonicera subspicata*), skunk brush (*Rhus trilobata*), blackberry (*Rubus ursinus*), Mexican elderberry (*Sambucus mexicana*), and poison oak.

This plant community commonly occurs within canyons and valleys of coastal southern California, mostly south of Point Conception. Southern Coast Live Oak Riparian Forest occurs west of the Project site along Oak Canyon.

Coastal and Valley Freshwater Marsh (52410)

This community is dominated by perennial, emergent monocots 4 to 5 meters tall, often forming completely closed canopies. Bulrush (*Scirpus* sp.) and cattails (*Typha* sp.) dominate this community.

Coastal and Valley Freshwater Marsh occurs on sites with still water (lacking significant current) permanently flooded by fresh water (rather than brackish, alkaline, or variable). Prolonged saturation of this community permits accumulation of deep, peaty soils.

Characteristic species that occur within this plant community include rough sedge (*Carex senta*), yellow nut-grass (*Cyperus esculentus*), tall cyperus (*Cyperus eragrostis*), spikerush (*Eleocharis* spp), hard-stemmed bulrush (*Scirpus acutus*), *S. americanus*, *S. californicus*, *S. robustus*, Sparganium eurycarpum, narrow-leaved cattail (*Typha angustifolia*), and broad-leaved cattail (*Typha domingensis*).

This community occurs occasionally along the coast and in coastal valleys near river mouths and around the margins of lakes and springs. It is most extensive in the upper portion of the Sacramento-San Joaquin River Delta, and is common in the Sacramento and San Joaquin Valleys in river oxbows and other areas on the flood plain. It also occurs occasionally along the Colorado River on the California-Arizona border, but is now much reduced in area through its entire range. This vegetation community occurs along the northern edge of Hollins Lake within the Mission Trails Regional Park.

Freshwater, Open Water (13100)

Although not a vegetation community, Freshwater, Open Water does provide suitable habitat for a number of aquatic plants and wildlife species. The portion of the 1-mile buffer area around the Project site that contains open water is specifically associated with Hollins Lake within the Mission Trails Regional Park, the Santee Recreation Lakes, and a few golf course lakes associated with the Carlton Oaks Country Club. Water in these lakes is present year round. The Holland classification code for this plant community is 13100.

Urban Developed (12000)

Urban Developed areas are typically paved and landscaped and provide little to no habitat value to wildlife species. Unlike disturbed areas, which may revert back to a native or non-native plant community over time, these areas are typically paved and have no potential for reestablishing a viable vegetation community. This type of “habitat” is not a plant community and is considered to have no value to wildlife.

The Urban Developed areas near the Project site are associated with three main residential developments to the east, southeast, and south of the Project site. There are also some Urban/Developed areas within the Mission Trails Regional Park. The Holland classification code for this plant community is 12000.

Biological Resources: Appendix B(g)(1)

Information required:

Please conduct general surveys for special status species of the 1-mile buffer around the Project site and 100% survey of the linear facilities out to 1,000 feet from the outer edge to supplement 2011 surveys. Then provide discussions of direct, indirect, and cumulative impacts of any special status species found during surveys of the proposed linears.

Response:

Summary of Surveys Completed

Based on technical discussions with staff, the Applicant understands that, in this data request, staff is requesting that a desk top survey be completed for the 1,000-foot buffer around linear facilities. This desk top survey has been completed and the results are shown on Exhibits 2-6. The Applicant further understands that the information provided in the AFC regarding special status species within the 1-mile buffer of the Project site is sufficient for data adequacy purposes.

Direct, Indirect, and Cumulative Impacts

The following is a list of sensitive plant and wildlife species that were observed (*) or previously recorded (**) within the 1,000-foot buffer area of the linear facilities:

San Diego Barrel Cactus (*Ferocactus viridescens*)*
 Willowy Monardella (*Monardella linoides* ssp. *viminea*)*
 Variegated Dudleya (*Dudleya variegata*)*
 Heart-leaved pitcher sage (*Lepichinia cardiophylla*)*
 Cooper's hawk (*Accipiter cooperii*)*
 Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)*
 Coronado Island skink (*Plestiodon skiltonianus interparietalis*)*
 White-tailed kite (*Elanus leucurus*)*
 San Diego black-tailed jackrabbit (*Lepus californicus*)*
 Coastal California Gnatcatcher (*Polioptila californica californica*)**

San Diego Barrel Cactus (*Ferocactus viridescens*)*
 Willowy Monardella (*Monardella linoides* ssp. *viminea*)*
 Variegated Dudleya (*Dudleya variegata*)*
 Coastal California Gnatcatcher (*Polioptila californica californica*)**

Focused pedestrian surveys conducted within portions of the 1,000-foot linear buffer area indicated the presence of San Diego barrel cactus, willowy monardella, variegated dudleya, heart-leaved pitcher sage, Cooper's hawk, southern California rufous-crowned sparrow, Coronado Island skink, white-tailed kite, and San Diego black-tailed jackrabbit. No coastal California gnatcatchers were observed or otherwise detected during protocol surveys in 2011 (AFC page 4.12-33). There will be no Project-related impacts to any coastal California gnatcatchers. The following includes a discussion of direct, indirect, and cumulative impacts associated with the above-mentioned species that were observed within the 1,000-foot buffer area.

Direct Impacts

Construction activities associated with the installation, maintenance, and operation of the proposed linear facilities as currently defined will not impact any willowy monardella, heart-leaved pitcher sage, southern California rufous-crowned sparrow, or San Diego black-tailed jackrabbit because these species are located in an area that is not anticipated to be impacted by construction of the linear facilities. In addition, no suitable habitat for this species occurs within the 1,000-foot buffer area for linears (AFC page 4.12-39). Therefore, within the 1,000-foot buffer area, there would be no project related impacts to any willowy monardella heart-leaved pitcher sage, southern California rufous-crowned sparrow, or San Diego black-tailed jackrabbit.

The proposed linear facilities will potentially impact the San Diego barrel cactus, variegated dudleya, Coronado Island skink, and white-tailed kite (AFC, p. 4.12-39). Construction and installation of the proposed Project will potentially impact approximately 40 San Diego barrel cactus, of which, approximately three individuals are specifically associated with the construction and installation of the linear facilities. Construction and installation of the proposed project will potentially impact approximately 10 variegated dudleya, of which all are specifically associated with the construction and installation of the linear facilities. Construction activity along the linears may impact Coronado Island skink and white talked kite. These are the only sensitive plant and/or wildlife species that will be impacted by project-related activities within the

linear facility portion of the project as addressed in the AFC (page 4.12-39). Vegetation community impacts are included in Table 1 below. Permanent impacts are impacts from permanently developed project components including the Quail Brush power plant, access roads, and gen tie tower footprints. Temporary impacts are those impacts that are only necessary for construction of the Project and can be revegetated once construction activities have been completed. These activities include graded slopes, temporary work areas, and the gas line right-of-way.

Table 1: Habitat Types/Vegetation Communities Impacts to Linear Facilities

Habitat / Vegetation Community	Permanent Impacts (Acres)	Temporary Impacts (Acres)
Diegan Coastal Sage Scrub	0.12	0.46
Diegan Coastal Sage Scrub with non-native grassland	0.02	0.25
Disturbed Habitat	0.03	1.03
Granitic Chamise Chaparral	0.04	0.31
Non-Native Grassland	2.08	7.28

Indirect Impacts

Based on the Project design features and the known locations of the existing sensitive plant and wildlife species, there will be no indirect impacts to sensitive species from project-related activities.

Indirect impacts or secondary effects are those impacts that are reasonably foreseeable and could be caused by the Project outside the Project area. The indirect impacts to sensitive biological resources resulting from construction of the linear facilities that may have the potential to be significant are (1) stormwater pollution and (2) impacts to nesting migratory birds. Water quality in riparian areas can be adversely affected by pollutants in runoff and by sedimentation occurring during construction. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Construction activities occurring within the Project area but in the vicinity of nesting birds outside the Project area, that generate construction noise and vibration, may have the potential to cause an active nest to fail.

In both cases, Best Management Practices (BMPs) and avoidance measures will be incorporated to reduce impacts to less than significant levels. These measures are provided in the Quail Brush Generation Project AFC, pages 4.13-23, and are summarized in the response below to the data request for information on mitigation measures for impacts to sensitive species found within the linear facilities

Cumulative Impacts

A cumulative impact “consists of an impact which is created as a result of the combination of the [proposed Project] together with other projects causing related impacts” (CCR Title 14 § 15130 [a][1]). The proposed Sycamore Landfill expansion is the only major development project proposed for the East Elliot Community Plan Area. As part of the ongoing CEQA process for the expansion of the Sycamore Landfill, the landfill is working with the City of San Diego to mitigate for biological impacts associated with the expansion in conformance with the City of San Diego

biological guidelines and the MHPAs located within the Multi-Species Conservation Plan (MSCP). It is not anticipated that the Proposed Project, in combination with the Sycamore Landfill, would have any cumulative impacts on the special status species identified in the 1,000 foot buffer surrounding the linear.

Specifically, protection of biological resources in the project area occurs at a regional level through implementation of the MSCP and the City Subarea Plan. Projects that conform to the MSCP, the Subarea Plan, and implementing ordinances (including the City of San Diego's Biology Guidelines and Environmentally Sensitive Lands Regulations) are not anticipated to result in a significant cumulative impact to biological resources covered by the MSCP (City of San Diego 2011). These resources include vegetation communities identified as Tier I through IV, and species covered by the City Subarea Plan for the "Eastern Area" which covers the proposed Project. By this standard, any impacts to the vegetation communities listed in Table 4.12-9 of the AFC, and covered species, which include Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), San Diego barrel cactus, variegated dudleya, Coronado Island skink and white tailed kite, are the only special status species located within the 1,000-foot linear buffer that will be impacted by the proposed Project, and would not be cumulatively significant.

Biological Resources: Appendix B(g)(1)

Information required:

Provide suggested mitigation measures of any special status species found during surveys of the linears.

Response:

Mitigation Measure Bio-3 currently provides:

To minimize the impacts to San Diego barrel cactus, a Sensitive Plant Relocation Plan will be prepared similar to the existing plan currently approved for the adjacent Sycamore Landfill. The sensitive plants will be relocated to the existing Sycamore Landfill relocation site or to the proposed exchange parcel or other suitable habitat area as deemed appropriate by the City of San Diego. If any variegated dudleya are impacted by construction of the gen tie, a species specific Sensitive Plant Relocation Plan will be prepared and appropriate mitigation approved by the City of San Diego. (AFC, p. 4.12-47).

This measure will be amended to also apply to the ten variegated dudleya, as follows:

To minimize the impacts to San Diego barrel cactus and variegated dudleya, a Sensitive Plant Relocation Plan will be prepared similar to the existing plan currently approved for the adjacent Sycamore Landfill. The sensitive plants will be relocated to the existing Sycamore Landfill relocation site or to the proposed exchange parcel or other suitable habitat area as deemed appropriate by the City of San Diego. If any variegated dudleya are impacted by construction of the gen tie, a species-specific Sensitive Plant Relocation Plan will be prepared and appropriate mitigation approved by the City of San Diego.

Mitigation measures for impacts to Sensitive Species Found During Surveys of Linear Facilities will require a plant relocation plan, similar to the one used at the Sycamore Landfill. The plan

will include a conservation area appropriate for relocating the three individual San Diego barrel cactus and ten variegated dudleya.

Habitat Types/Vegetation Communities

The City of San Diego has prepared pre-approved mitigation ratios for impacts to vegetation communities identified in the MSCP Subarea Plan. Based on the MSCP, Tier II and Tier III habitats require mitigation replacement ratio of 1:1 for impacts to habitat within the MHPA that will be replaced by habitat preserved within the MHPA. Therefore, project related impacts would be mitigated by the conservation of 0.46 acre of Diegan coastal sage scrub, 0.31 acre of granitic chamise chaparral, and 7.28 acres of non-native grasslands (Table 2). The mitigation mentioned above is specifically related to linear facilities only. Additional mitigation measures are required for permanent impacts associated with the plant facility and the Switchyard and are included in the AFC.

All temporary impacts to linear facilities will be restored with native vegetation as appropriate within the proposed project development such as disturbed graded slopes and temporary work areas. Revegetation of temporary impact areas may be considered as part of the overall mitigation if a restoration plan is prepared to ensure proper restoration and meets design requirements as approved by the City of San Diego. Restoration of areas of low quality non-native grasslands and low quality coastal sage scrub to high quality habitats is beneficial in providing more appropriate habitat for sensitive plant and wildlife species that may be occupied by the sensitive plant and wildlife species that are known to occur in the area in the future. These mitigation measures mentioned above will reduce the impacts to less than significant.

Table 2: Mitigation Requirements for Impacts to Habitat Types/Vegetation Communities

Habitat / Vegetation Community	Habitat Replacement at a 1:1 Ratio (Acres)	Habitat Restoration at a 1:1 Ratio (Acres)
Diegan Coastal Sage Scrub	0.12	0.46
Diegan Coastal Sage Scrub with non-native grassland	0.02	0.25
Disturbed Habitat	0.03	1.03
Granitic Chamise Chaparral	0.04	0.31
Non-Native Grassland	2.08	7.28

Biological Resources: Appendix B(g)(13)(A)

Information required:

Please provide a map at a scale of 1:100,000 (or other suitable scale) which includes sensitive biological resources out to 10 miles of the project site and shows the project site, linears, laydown site(s), roads, proposed mitigation lands, and any Multiple Species Conservation Program and Multi-Habitat Planning Area boundaries.

Response:

MBA has prepared the following exhibits in order to respond to this request:

- Exhibits 2a-1, 2b-1, 2c-1, and 2d-1 showing the location of sensitive plant species within a 10-mile radius of the Proposed Project;
- Exhibits 2a-2, 2b-2, 2c-2, and 2d-2 showing the location of sensitive wildlife within a 10-mile radius of the Proposed Project.

These exhibits were prepared using a 1:100,000 scale map; however, since the sensitive species that occur within a 10-mile radius of the Project site do not fit within a single map at a 1:100,000 scale, MBA created two four-panel maps to clearly depict the required information.

Each map shows the location of the Proposed Project and associated facilities including access roads, the MSCP boundary line, the City of San Diego MSCP Subarea boundary line, and the MHPA boundary line. Because specific locations for laydown sites and proposed mitigation lands are still not known by the Applicant, these are not depicted on the maps. However, it is assumed that these project elements will be located within the Project area boundary as currently defined, and within the area previously surveyed for biological resources.

Biological Resources: Appendix B(g)(13)(A)(i), (ii), (iii), and (iv)

Information required:

Please conduct a 9 quad search of the CNDDDB for the following quads: Del Mar, El Cajon, Jamul Mountains, La Jolla, La Mesa, National City, Point Loma, San Vicente Reservoir and Poway. Take this list and amend existing Special-Status Plant and Wildlife Tables 4.12-5 and 4.12-6 in AFC with all species listed in CNDDDB search. Within the tables under the column “Potential to Occur/Known Occurrence/Suitable Habitat”, please explain for each species from the search its potential to occur.

The 9 quad CNDDDB search in the AFC provided a list of 75 species (including plant communities). Staff conducted the same 9 quad CNDDDB search and found 179 species (including plant communities). Because of this discrepancy, and no explanation as to the reasoning behind excluding several species abbreviated list for field surveys, the lack of general surveys for the 1-mile buffer and 100% coverage for linear facilities out to 1,000 feet, and conducting surveys late in the year, it is not known if all federal and state endangered species have been accounted for.

Response:

Tables 4.12-5 and 4.12-6 in the AFC are incorrect because they were mistakenly based on the results of a preliminary CNDDDB search. MBA has conducted the requested CNDDDB 9-quad search is included as Attachment B.2. Attachment B.2 identifies 180 special status species, 92 sensitive plant species, 75 sensitive wildlife species, and 13 sensitive plant communities. One additional sensitive plant species, graceful tarplant (*Holocarpha virgata* ssp. *elongata*), was added to the list of sensitive species at the request of the California Department of Fish and Game (CDFG) staff, but was not included in the 9-quad CNDDDB search. This species does not have a CNDDDB recorded occurrence within the 9-quad search area. On rare occasions, information is provided by a resource agency, in this case CDFG, on a known location of sensitive species that are not included in the CNDDDB. These 180 sensitive biological resources

were evaluated for potential occurrence within the Project site. Tables 4.12-5 and 4.12-6 have been updated to include an evaluation of all 167 sensitive plant and wildlife species (Attachment B.3, Species Tables). In addition, Table 3: 9-Quad CNDDDB List of Sensitive Plant communities has been added. The additional thirteen sensitive biological resources evaluated for potential to occur are associated with sensitive plant communities, which include the plant communities shown in Table 3.

Table 3: 9-Quad CNDDDB List of Sensitive Plant Communities

Sensitive Plant Communities Identified		
Within Project Site	Within 1-Mile Buffer	Outside of 1-Mile Buffer
Southern Riparian Scrub	San Diego Mesa Hardpan Vernal Pool	Maritime Succulent Scrub
Southern Sycamore Alder Riparian Woodland	Southern Coast Live Oak Riparian Forest	San Diego Mesa Clay Pan Vernal Pool
	Southern Cottonwood Willow Riparian Forest	Southern Coastal Salt Marsh
	Southern Riparian Forest	Southern Interior Cypress Forest
		Southern Maritime Chaparral
		Torrey Pine Forest
		Valley Needlegrass Grassland

Biological Resources: Appendix B(g)(13)(B)

Information required:

Please provide complete list of species observed within 1 mile of the project site and 1,000 feet from the outer edge of proposed linear facility corridors once surveys are completed.

Response:

A complete list of all species observed within a 1-mile buffer area around the Project site and 1,000 feet from linear facilities is included in Attachment B.4, Species Compendium. This list of species includes all of the species that were observed within the Project site and those found within the buffer area surrounding the Project site and linear facilities. No additional surveys were conducted per technical discussions with CEC staff. The Applicant understands that in this data request, staff is requesting that a desk top survey be completed for the 1-mile buffer around the Project area, and the 1,000-foot buffer around linear facilities. This desk top survey has been completed and the results are shown on Exhibits 2-6. The Applicant further understands that the information provided in the AFC regarding special status species within the 1-mile buffer of the Project site is sufficient for data adequacy purposes.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

MBA has created the following maps in response to this request:

- Exhibit 3 - 1-Mile Buffer Facilities Index Map
- Exhibit 3a-1 - 1-Mile Buffer Facilities Index Map - Quadrant A
- Exhibit 3a-2 - 1-Mile Buffer Facilities Index Map - Quadrant B
- Exhibit 3a-3 - 1-Mile Buffer Facilities Index Map - Quadrant C
- Exhibit 3a-4 - 1-Mile Buffer Facilities Index Map - Quadrant D
- Exhibit 3a-5 - 1-Mile Buffer Facilities Index Map - Quadrant E
- Exhibit 3a-6 - 1-Mile Buffer Facilities Index Map - Quadrant F
- Exhibit 3a-7 - 1-Mile Buffer Facilities Index Map - Quadrant G
- Exhibit 3a-8 - 1-Mile Buffer Facilities Index Map - Quadrant H

Due to the size of the 1-mile buffer area, a series of 7 panels were necessary to cover the entire 1-mile buffer area at a 1:6,000 scale. The updated maps include the 30 percent overlay of the proposed Project site and related facilities as requested. They also include the 1-mile buffer area and the 1,000-foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities including linears and includes species from CNDDDB search. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

MBA has created the following maps in response to this request:

Exhibit 4 - CNDDDB 1-Mile Project Site Buffer Index Map

Exhibit 4a-1 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant A

Exhibit 4a-2 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant B

Exhibit 4a-3 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant C

Exhibit 4a-4 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant D

Exhibit 4a-5 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant E

Exhibit 4a-6 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant F

Exhibit 4a-7 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant G

Exhibit 4a-8 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant H

Due to the size of the 1-mile buffer area, a series of 7 panels were necessary cover the entire 1-mile buffer area at a 1:6,000 scale. The updated maps include the 30 percent overlay of the

proposed Project site and related facilities. They also include the 1-mile buffer area as well as the 1,000 foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities including linears and includes species from project related field surveys. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

A series of maps was created at a 1:6,000 scale that depicts the proposed Project site and related facilities as well as all sensitive species recorded during Project-related surveys within the 1-mile buffer area and 1,000-foot buffer of linear facilities. Due to the size of the 1-mile buffer area, a series of 7 panels were necessary cover the entire 1-mile buffer area at a 1:6,000 scale. The maps (Exhibit 5) include an index map and Quadrants A through H. The updated maps include the 30 percent overlay of the proposed Project site and related facilities. They also include the 1-mile buffer area as well as the 1,000 foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(C)(i)

Information required:

Please provide a complete list of all the species observed in the 1-mile buffer around the project site and out to 1,000 feet from the outer edge of linear facilities once surveys are completed.

Response:

Please see response to data request for Appendix B(G)(1) above for a discussion of the survey process for the 1-mile buffer around the Project site and 1,000 feet buffer around the linear facilities.

Please see response to data request for Appendix B(g)(13)(B) for a complete list of all species observed with the 1-mile buffer around the Project site and 1,000 feet buffer around the linear facilities.

Biological Resources: Appendix B(g)(13)(C)(ii)

Information required:

Please follow instructions from first paragraph in Appendix B (g) (13) (A) (i) above.

Please provide a vegetation communities map for the 1-mile buffer around project site and out to 1,000 feet from the outer edge of proposed linear facilities. Include any sensitive vegetation communities on this map.

As discussed above for Appendix B (g) (13) (A) (i), it is not known if all sensitive species and habitats with potential to occur have been accounted for.

Response:

Please see response to data request for Appendix B(g)(13)(A)(i), above, for a discussion of the completion of the 9-quad search of the CNDDDB. The results of this search are included here as Attachment B.2 – CNDDDB List.

Please see response to data request for Appendix B(g)(1), above, for a discussion regarding preparation of a Vegetation Communities Map, which is included here as Exhibit 1 – Vegetation Communities within a 1-Mile Radius of Project Site. Exhibit 1 also delineates the 1,000-foot buffer around the linear facilities.

Biological Resources: Appendix B(g)(13)(D)

Information required:

As discussed under Appendix B (g) (13) (A) (i) above, the results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities are incomplete.

Please provide a description and results of all field studies and seasonal surveys used to provide biological baseline information for the project site and associated facilities for the 1-mile buffer around project site (100% coverage not required) and complete coverage out to 1,000 feet from the outer edge of linear facilities.

Response:

Because MBA did not have access to all surrounding, privately held lands, surveys conducted for biological resources associated with the proposed Project site did not include the entire 1-mile Project buffer area or the 1,000-foot buffer for linear facilities. However, some portions of these areas were surveyed during the general biological resources studies for the proposed Project on June 15, 22, 30, and July 7, 2011. In response to these Data Adequacy comments, and per technical discussions with CEC staff, a desktop study was conducted to document the existing conditions and verify the surrounding land use and vegetation communities present in the buffer areas that were not subject to pedestrian surveys. The responses in this Supplement provide the results of this effort.

As depicted in Exhibit 3a-1, 3a-2, 3a-4, 3a-5, 3a-7, and 3a-8 for Quadrants A, B, D, E, G, and H, project-related surveys within offsite adjacent properties were conducted to get a better understanding of surrounding land use. No pedestrian surveys were conducted in areas depicted in Exhibits 3a-3 and 3a-6 (Quadrants C and F, respectively).

MBA typically surveys a 1-mile radius of a project site on a general level to identify adjacent land use and connectivity of suitable habitat for sensitive plant and wildlife species that commonly occur in the vicinity of the site. A detailed vegetation map was obtained from SanGIS, which was created as part of the base-line information for the MSCP. This information is general in nature and requires some ground truthing to verify existing conditions. MBA evaluated the existing vegetation map data and adjusted boundary lines based on existing conditions onsite.

Based on our assessment of the 1-mile buffer area, the area includes a total of 4,007.22 acres of land. Table 4 below includes a list of all the habitat types/vegetation communities documented within the 1-mile buffer area. Vegetation communities with an asterisk are recorded in the CNDDDB search as a CDFG sensitive plant community.

Table 4: Habitat Types/Vegetation Communities in the 1-Mile Buffer

Habitat / Vegetation Community	Acres
Coastal and Valley Freshwater Marsh	1.60
Coastal Sage Scrub-Chaparral Scrub	4.71
Diegan Coastal Sage Scrub	1,185.38
Diegan Coastal Sage Scrub with non-native grassland	11.83
Disturbed Habitat	219.09
Freshwater: Open Water	22.89
Granitic Chamise Chaparral	552.30
Granitic Chamise Chaparral with non-native grassland	9.78
Granitic Southern Mixed Chaparral with non-native grassland	1.00
Non-Native Grassland	819.04
Non-Vegetated Channel	19.68
Riparian Woodlands	1.70
Southern Coast Live Oak Riparian Forest*	4.97
Southern Mixed Chaparral	39.61
Southern Cottonwood-Willow Riparian Forest*	6.15
Southern Riparian Scrub*	93.80
Southern Arroyo Willow Riparian Forest	7.24
Southern Riparian Forest	66.06
Southern Sycamore-Alder Riparian Woodland*	21.77
Urban/Developed	918.62
Total	4,007.22

* Included in CNDDDB search as a CDFG sensitive plant community

Table 5 below includes a list of all the habitat types/vegetation communities documented within the 1,000-foot buffer of linear facilities.

Table 5: Habitat Types/Vegetation Communities and Impacts within the 1,000-foot buffer of Linear Facilities

Habitat / Vegetation Community	Acres
Diegan Coastal Sage Scrub	73.92
Diegan Coastal Sage Scrub with non-native grassland	10.88
Disturbed Habitat	37.03
Granitic Chamise Chaparral	34.80
Granitic Southern Mixed Chaparral with non-native grassland	1.00
Non-Native Grassland	247.40
Non-Vegetated Channel	7.82
Riparian Woodlands	0.55
Southern Riparian Scrub*	1.68
Southern Sycamore-Alder Riparian Woodland*	7.41
Urban/Developed	39.04
Total	461.53

* Included in CNDDDB search as a CDFG sensitive plant community

Additional information regarding sensitive plant and wildlife species occurring within the 1-mile buffer was evaluated at a desktop level based on known recorded occurrences of sensitive species and sensitive habitats based on the most current version of the CNDDDB. This was also cross-referenced with soils data and USGS topographic quadrangle maps to better understand the potential for sensitive plant and wildlife species to occur within adjacent properties.

Biological Resources: Appendix B(g)(13)(D)(i)

Information required:

Please describe in detail the methods used for botanical and wildlife field surveys.

As discussed under Appendix B (g) (13) (A) (i) above, the results of all field studies and seasonal surveys used to provide biological baseline information about the Project site and associated facilities are incomplete.

Please explain why *Bloomeria clevelandii* occurs on the list of plants found during field surveys but is not mapped with the other special status plants and is not discussed in the impacts and mitigation sections. If this species was found please provide a map of its location(s) as well as a discussion of the species, impacts and mitigation.

Response:

Botanical surveys began with an overview search of the CNDDDB for plant species previously recorded to occur within a three-mile radius of the Project site. Species within this range typically have the highest potential to occur onsite due to the close proximity of existing populations. Following a review of the CNDDDB, a US Geological Survey topographic map was reviewed to identify the survey area elevation limits. A soil map was created to identify the existing soils within the Project site. Many sensitive plant species have specific soils requirements, such as alkaline, clay, or volcanic soils. Potentially occurring plant species were eliminated from consideration prior to conducting plant surveys based on soil requirements and elevation limits.

Photographs were compiled of the remaining plant species identified as potentially occurring within the Project site and brought to the Project site during plant surveys, which were conducted on May 10, 11, 12, and July 7, 2011 by MBA biologists Scott Crawford, Diana Lloyd, Kelly Rios, and Dale Hameister. A current resume for Dale Hameister is included in Attachment B.5, Resume, as requested during the September 21, 2011 meeting with technical staff. The sensitive plant survey and habitat assessment were carried out simultaneously over 100 percent of the survey area during the same field effort, rather than conducting a sensitive plant survey subsequent to and based upon the results of the habitat assessment. Over four days of focused surveys, each biologist surveyed at a rate of approximately 35 acres per day. Sensitive plant species observed during the sensitive plant/habitat assessment surveys were recorded using a Trimble GPS unit with sub-meter accuracy. Data collected during this survey were used to prepare the detailed vegetation map for the Project.

Wildlife surveys began by conducting the CNDDDB 9-quad and 10-mile radius records searches using CNDDDB data with ARCVIEW GIS software. The detailed vegetation map prepared from the data collected during the habitat assessment/sensitive plant survey was used for the wildlife surveys. Habitat requirements for each of the 75 potentially occurring wildlife species were evaluated. Wildlife surveys were conducted within the survey area on June 15, 22, 30, and July

7, 2011. Additional surveys were also conducted for coastal California gnatcatcher (*Polioptila californica californica*) on May 25, June 3, 9, 15, 23, and 30, 2011; and for Herme's copper butterfly (*Lycaena hermes*) on May 25, June 9, 23, and July 7, 2011. Surveys were conducted by MBA biologists Scott Crawford, Diana Lloyd, and Kelly Rios. Sensitive wildlife species observed during the wildlife surveys were recorded using a Trimble GPS unit with sub-meter accuracy. The survey was conducted within the designated survey area as indicated in Exhibit 3 submitted in Appendix H of the AFC.

Bloomeria clevelandii

During the sensitive plant surveys conducted during the May through June blooming period, the *Bloomeria* species observed onsite was misidentified as the sensitive San Diego goldenstar (*Bloomeria clevelandii*). This species was included in an early version of the species compendium, but was later determined to be the common goldenstar (*Bloomeria crocea*) species. Two key characteristics that were used to identify this species include a brown line that runs on the bottom of the flower petal in *Bloomeria crocea* and is absent or green in *Bloomeria clevelandii*. Also, the stamen are straight up in *Bloomeria crocea* and lay almost flat against the petals in *Bloomeria clevelandii*. The goldenstars within the Project site exhibited a brown stripe along the bottom of the flower petal and the male flower parts struck straight up as in *Bloomeria crocea*. The occurrence of *Bloomeria Clevelandii* in the species compendium was an oversight and should not have been included.

Quino Checkerspot Butterfly

While the specific request for information on the Quino checkerspot butterfly was deleted from the final Data Adequacy Worksheet package, at the September 21, 2011, CEC staff requested that MBA provide a response for this species. The Quino checkerspot butterfly's current known distribution is in the coastal plains and inland valleys in portions of Riverside and San Diego counties and northwestern Baja California. The species' historic range includes areas of southern California and Baja California, and portions of San Diego, Orange, Los Angeles, and western Riverside counties. This species is threatened by one or more of the following factors: habitat loss and fragmentation due to urban development, over collection and other human disturbances, drought, fire, or other weather extremes, and by the displacement of the primary larval food plant by non-native grasses and other weedy annuals.

The Quino checkerspot butterfly exists in low elevation (sea level to 3,000 feet), open grasslands, and sunny openings within shrubland habitats; it is usually associated with clay soils or deposits of cryptogamic crust. The cryptogamic plants develop a hard crust that is occupied by low growing herbaceous annuals including the Quino checkerspot butterfly larvae's primary food plant, dwarf plantain (*Plantago erecta*) and the larvae's additional food plant, owl's clover (*Castilleja exserta*). The Quino checkerspot butterfly is found only in areas where there are dense stands of one or both of the larvae's food plants.

Adult Quino checkerspot butterflies live from 4 to 8 weeks and are in flight from approximately late January to mid-May. Courtship behavior consists of male butterflies hill-topping on open or sparsely vegetated rounded hilltops, ridgelines, and rocky outcrops. Adults sun themselves at the base of hills and have been observed flying through areas of unsuitable habitat, most likely dispersing to sites with the food plants. After mating, female adults lay eggs, which hatch in about 10 days. The larvae feed on the food plants for about two weeks, at which time the food plants senesce and wither. Larvae then locate cracks in the soil or other concealed areas where

they diapause and remain dormant during the dry season until the next winter. After the winter, plants germinate following fall or winter rains, the larvae pupate into adults. The larvae may remain dormant for one or more seasons, which is dependent on how quickly rain facilitates the sprouting of food plant seeds. In approximately a two-week period, the adults emerge, feed, disperse, reproduce, and then die.

Although Scott Crawford holds a permit to conduct protocol Quino checkerspot butterfly surveys (U.S. Fish and Wildlife Service [USFWS] Permit # TE 019947-03), at no time were any protocol surveys conducted within the survey area for Quino checkerspot butterfly. MBA conducted a habitat assessment for this species and determined that only a few host plants occur within the Project site, but not in enough numbers to support a population of this species. Dwarf plantago and purple owl's clover generally occur during the Quino checkerspot butterfly's flight season, normally from early February to late April. However, during times of extended rainfall, these plants can be identified as late as the beginning of June. Measurable rainfall was recorded on April 8 and 26, May 9, 18, and 28, and June 1, and 8, 2011. This extended rainy season provided sufficient moisture to sustain the Quino checkerspot butterfly host plants within the Project site. There was no evidence of any additional plants including dried-up plants, which often can still be identified long after the plant has died.

Known populations of Quino checkerspot butterfly typically occur where *Plantago* patches are extensive and dense, at roughly 5,000 plants/square meter. The survey area contained three individual *Plantago* and six individual purple owls' clover specimens. There is not a sufficient density of *Plantago* within the Project site to support a population of Quino checkerspot butterfly. Other key constituent habitat components also absent from the Project site include rocky outcrops and cryptogamic soils crust.

The only habitat components observed within the survey area include marginal quality coastal sage scrub habitat and hilltop areas. Patrick Gower, a USFWS representative, indicated that the known population of Quino checkerspot butterfly in the Mission Trails area has not been observed since the 2007 fire (Personal Communication June 8, 2011). Although marginal quality habitat has started to return to the area, there is still not a sufficient population of host plant to support Quino checkerspot butterfly. Based on MBA survey efforts, the lack of a sufficient number of host plants, a lack of other constituent habitat components and the assessment by Mr. Gower of the USFWS, in Scott Crawford's professional opinion, focused surveys for Quino checkerspot butterfly were not necessary. However, the determination of whether protocol surveys are required on a specific project site is at the discretion of the USFWS.

Based on the current USFWS protocol, all areas that are not excluded should be surveyed for butterflies, regardless of Quino checkerspot butterfly host plant presence, absence, and/or density. The proposed Project site and surrounding areas are not considered excluded. Portions of the Project that provide suitable habitat for Quino checkerspot butterfly include sparse Diegan coastal sage scrub, open grassland areas, and any exposed hilltop areas. Although the key constituent habitat elements do not occur within the Project site, it is highly likely that the USFWS will require Quino checkerspot butterfly protocol during the 2012 survey season to determine presence/absence. Additional consultation with USFWS will be required to determine if protocol surveys are warranted at this location based on known recorded occurrences, existing site conditions, and current range of the species.

Based on the results of air quality modeling as presented in Section 4.7, Air Quality of the AFC, cumulative impacts associated to vegetation and associated special status species from nitrogen deposition are expected to be less than significant.

Biological Resources: Appendix B(i)(1)(A)

Information required:

Please Revise Table to Include Pages Referencing AFC Discussion of LORS.

Response:

Table 4.12-10 from the LORS for Biological Resources has been marked to include page number referencing to the AFC discussion. The table is in Attachment B.6, LORS Reference Pages.

Cultural Resources

Cultural Resources: Appendix B (g) (1)

Information Required:

Please include explicit discussions of how each proposed mitigation measure would effectively help to avoid, minimize, or mitigate particular significant effects that the proposed project would have on historical resources.

Response:

Incorporation of each proposed mitigation measure would reduce potential impacts on historical resources to less than significant. Since the Project avoids all identified cultural resources, these mitigations are focused on avoiding, minimizing, and mitigating impacts to potential and unanticipated historical resources that may be encountered during construction through archaeological monitoring efforts. Archaeological sites are typically considered CRHR-eligible based on data potential (Criterion 4). Therefore, mitigation measures are focused on retaining that data potential in any historical resources that may be encountered during the construction phase of the Project. Table 1, below, specifically describes how each measure either removes or reduces the potential to adversely affect unanticipated historical resources. Revised mitigation measures CUL-2, CUL-3, CUL-4, and CUL-5 are presented here (see responses to Appendix B (g) (2) (E) (i) and Appendix B (g) (2) (E) (iii)).

Table 1: Efficacy of Mitigation Measures

Proposed Mitigation Measure	Effect of Measure
<p>CUL-1. Continue Native American Consultations— On behalf of the CEC, Quail Brush Genco, LLC will continue to consult with Native Americans identified by the NAHC in order to identify potentially sacred sites and/or resources that may be impacted by the Project as well as to identify appropriate Native American monitors. Additionally, Quail Brush Genco, LLC will determine if additional Native Americans require consultation based on the City’s requirements and initiate contact with individuals not already contacted.</p>	<p>This mitigation measure is intended to avoid or minimize impacts on Native American resources, including traditional resources, religious sites, and Native American archaeological sites. Although no such resources have been identified within or adjacent to the APE, potential impacts on the data potential (CRHR Criterion 4) of unanticipated resources may occur during construction. Incorporation of this mitigation measure would reduce the potential impact level on those cultural resources to less than significant by ensuring that Native American’s who have an interest in any unanticipated historic resources discovered during project construction would have an opportunity to help identify how any such resource would be addressed.</p> <p>Although no additional input has been provided by consulted Native Americans since submittal of the AFC, continuing consultations will allow Quail Brush Genco, LLC to quickly identify and resolve potential impacts that may be identified at a later date by these represented communities. Maintaining these open lines of communication will better facilitate consultations should Native American-related historical resources be identified later in the planning process or during construction, and require avoidance, special treatment, or recovery. Successfully reaching an agreement with the Native American community as to</p>

Proposed Mitigation Measure	Effect of Measure
	how such resources should be handled would help ensure that there are no significant impacts to historical resources.
<p>CUL-2. Education/Training—Prior to Project implementation, all non-archaeological Project personnel will be briefed by a trained archaeologist on the prehistoric and historic use of the Project area and the results of the Project’s cultural resources survey. Further, personnel will be briefed on the importance of, and the legal basis for, the protection of significant archaeological resources and how these resources contribute to modern society, which personnel participate in. All archaeological and Native American monitors will be introduced and their roles explained.</p> <p>Personnel will be instructed on the identification of archaeological materials, particularly materials indicative of the site types considered likely to occur within the APE (lithic deposits, habitation sites, milling sites, temporary camps, military-related items or features, refuse deposits, homestead remnants, rock cairns or alignments, foundations, and prehistoric and historic isolates). In addition to a pocket brochure regarding identification of cultural resources and how to report finds, the training will include photographs of artifact classes likely to occur within the APE and, when possible, artifact samples that the personnel may handle and become more familiar with.</p>	<p>This mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Educating Project personnel as to the importance of prehistoric and historic cultural resources and training them how to identify such resources and the proper protocols to follow in the event of an unanticipated discovery will minimize the likelihood of a worker unknowingly or purposefully disturbing these resources. Educating workers as to the importance of cultural resources instills a sense of the significance of these resources to the Native American and scientific communities. Further, workers will come to understand how these resources contribute to our modern society and our understanding of history. With an understanding of these issues as well as the legal protections afforded historical resources, workers will develop an appreciation for cultural resources, thereby reducing the potential for workers to loot or damage the resources in the Project area. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>
<p>CUL-3. Monitoring—It has been requested by interested Native American tribes that a Native American monitor be present during ground-disturbing activities associated with the Project. Additionally, the APE is considered to have low to moderate archaeological sensitivity for unidentified surface resources and none to low subsurface archaeological sensitivity. Therefore, an archaeological monitor meeting the Secretary of the Interior’s Professional Qualification Standards for Archaeology as well as a Native American Consultant will be present onsite during initial ground disturbing activities. Given the geoarchaeological context of the proposed Project site and the proximity of the Stadium Conglomerate bedrock to the surface, cultural resource monitors will only be present during disturbance of the upper 20 cm. The monitors will be allowed to conduct a cursory survey of the proposed Project site following any initial mowing of vegetation. If any cultural resources are identified by the monitors during vegetation removal associated with construction, the resource will be treated as an unanticipated discovery and the protocols outlined in CUL-4 will be followed.</p>	<p>Similar to CUL-2, This mitigation measure is intended to avoid and minimize potential impacts to unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Archaeological monitoring insures that previously unidentified cultural resources are identified, recorded, and sufficiently treated or avoided during construction, thus minimizing the potential loss of data regarding historical resources. Further, monitoring acts as a deterrent in the event that education and training regarding cultural resources are not as effective as intended. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>

Proposed Mitigation Measure	Effect of Measure
<p>CUL-4. Unanticipated and Inadvertent Discoveries—If the archaeological monitors, construction staff, or others observe previously unidentified archaeological resources during construction, they will halt work in the vicinity of the find(s) and immediately notify the Project Archaeologist so that the resource value may be assessed as soon as possible and appropriate next steps determined in coordination with the CEC as the lead CEQA agency. Such finds will be formally recorded and evaluated for CRHR eligibility. The resource will be protected from further disturbance or looting pending evaluation and agreement from the CEC regarding the recommended CRHR eligibility status. Should the unanticipated discovery be determined to be a historical resource and cannot be avoided, Quail Brush Genco, LLC will provide justification as to why the resource cannot be avoided and recommend treatment options (i.e. data recovery) to the CEC and consulted Native American tribes and historical societies for agreement.</p> <p>If human remains and/or cultural items defined by the Health and Safety Code, Section 7050.5 are inadvertently discovered during construction activities, all work in the vicinity of the find will cease and the San Diego County Coroner will be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, work may be delayed in the vicinity of the find up to 30 days.</p>	<p>This mitigation measure is intended to avoid, minimize, or mitigate impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Stopping construction work in the vicinity of a find and allowing time to assess and evaluate an unanticipated or inadvertent discovery reduces the potential of data loss from a potential historical resource. Additionally, this time allows for all parties involved in the Project (Quail Brush Genco, LLC, CEC, consulted parties) to consult and determine if the resource can be avoided and, if not, appropriate treatments that would recover the data that will be destroyed. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>
<p>CUL-5. Additional Field Survey—If the finalized Project engineering design falls outside or beyond the current survey area, Quail Brush Genco, LLC will, in coordination with the CEC and City of San Diego, complete a cultural resources survey of those areas (including any CEC-required buffers). The survey methodology will be agreed upon by Quail Brush Genco, LLC, the CEC, and City of San Diego. Consulted Native Americans will be invited to participate in the survey. One paid Native American monitor will participate in the survey if interest is shown. Other interested Native Americans may participate in the survey on a voluntary basis. All cultural resources identified by the survey will be recorded on California DPR forms and mapped using a GPS unit with sub-meter accuracy. Results of the survey will be provided in a technical report conforming to the Archaeological Resource Management Report format (OHP 1990). The report will include maps of finalized engineering design and surveyed areas and any additional recommended mitigation measures will be provided to the CEC and the City of San Diego for comment and approval. If any resource identified by the survey cannot be avoided, it will be evaluated for CRHR eligibility and, if necessary to avoid significant impacts on the resource, additional treatments recommended. These recommendations will be submitted as a Historic Preservation Treatment Plan to the CEC, City of San Diego, and relevant consulting</p>	<p>This mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas outside of the survey area, should the final Project design result in the placement of Project components in these unsurveyed areas. Conducting additional field survey of any Project areas that fall outside of the original survey area allows opportunity to identify cultural resources within those areas, their recordation, evaluation for CRHR eligibility, and consideration for avoidance or appropriate treatment. Should any cultural resources in any additional survey area be determined to be historical resources, it would likely be under Criterion 4 (data potential). This mitigation measure will insure that the Project will not proceed unless and until an Historic Treatment Plan is developed, approved and implemented, insuring that any eligible resource would be avoided or mitigated. Incorporation of this mitigation measure would reduce the potential impact level on unanticipated cultural resources to less than significant.</p>

Cultural Resources

Proposed Mitigation Measure	Effect of Measure
parties for agreement. Any recommended treatments will occur prior to the initiation of Project activities within the vicinity of the historical resource. Project construction may occur elsewhere within the APE during this period and with applicable archaeological monitoring efforts.	

Additional References

California Office of Historic Preservation (OHP). 1990. *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. February 1990. Sacramento, California.

Cultural Resources: Appendix B (g) (2) (A)

Information Required:

The synthesis of the general prehistory of the San Diego region as a whole is sufficient as a broad introduction to the archaeology of the project area, but is insufficient to underpin the development of any research model for the pedestrian survey of the project area or as a useful context to facilitate the interpretation of the survey results. Using the San Diego region prehistory as a springboard and using the cultural resources technical reports and site forms that were gathered for the appendices of the AFC, please develop a discussion of the prehistoric archaeology of the project area vicinity. Explain what the archaeology looks like on the ground in the vicinity of the project area. Similarly, while the synthesis of the ethnography of the Kumeyaay, as a conceptual anthropological construct, provides a broad introduction to the Native American use of landscapes in the region, it does not relate how Kumeyaay bands did use or may have used the landscape in a 5-mile radius of the project area. Please provide an explicit discussion of whether such ethnographic information is available, and, if so, what that information has to say about local Native American land use.

Response:

The cultural setting of the technical report has been revised below. The prehistoric and historic contexts are intended to describe the chronology of the San Diego region applicable to the five-mile area surrounding the Project. The ethnohistoric context describes the cultural practices of the Kumeyaay within Southern California and the likely role of the Project area and surrounding five miles within the larger cultural patterns. No ethnographic study specific to the Project and surrounding five miles has been conducted. An archaeological context has been added at the end of the discussion to describe the archaeological resources and patterns within the five-mile radius surrounding the Project area.

2.2.1 Prehistoric Context

For purposes of this report, "prehistory" is considered the period of human occupation prior to Spanish contact (AD 1542). The prehistoric cultural chronology developed for Southern California has been extensively detailed in numerous previous investigations (Basgall and True 1985; Moratto 1984; Erlandson and Colton 1991). Archaeological complexes within the San Diego region are focused upon here, although they are discussed chronologically. Prehistorically, the San Diego region, including the five-mile area surrounding the Project,

sustained varying sequences of population densities and utilization. Current California archaeological theory characterizes prehistoric human occupation of the region as one that evolved through adaptation of settlement and subsistence strategies to the environment and available resources.

Pleistocene Period

Pleistocene occupation prior to ca. 10,000 years before present (BP) in the region has been debated, although less so recently, and remains an unsettled topic. None have been identified within the five miles surrounding the Project area. Some have argued that assemblages consisting of “crude” cobble artifacts represent a very early human presence. However without formal artifacts such as projectile points or ornamental items, or even human remains, this argument continues to be contested. Many believe the cobble artifacts to be of a natural origin. Laylander (2011) suggests that future archaeological investigations in the San Diego region, including observations of geological processes and materials, may be able to contribute additional information regarding the natural or cultural origin of such cobble assemblages.

A Late Pleistocene presence is generally more accepted due to the somewhat scarce occurrence of fluted points characteristic of the Clovis Pattern. However, even the temporal association of these is contested in the San Diego region due to their early use and potential to be traded through time periods. Of the three fluted points identified in the San Diego region (Laylander 2011), two have been reported as found in Cuyumaca State Park and Ocotillo Wells, 25 miles and 55 miles east of the Project respectively. The third, made of obsidian, is the only one to be collected from a controlled archaeological excavation conducted in a mountain Valley near Shingle Spring, approximately 44 miles northeast of the Project (Kline and Kline 2007). However, when the material was sourced it was found to be from the Casa Diablo source in Mono County of Northern California. The expansive distance between this material source and the artifact’s final deposition suggests a comparable amount of time passed before it was brought into the San Diego region by a more recent, post-Pleistocene population. However, Kline and Kline (2007:58) argue that if this were the case “it would more likely have been intermingled with later artifacts closer to the surface levels.” Thus, even with the rare presence of fluted points, the degree of Late Pleistocene occupation of San Diego, particularly along the coast and western mountains, remains debatable.

Early Period/Archaic Period

During this period between 10,000 and 1300 BP, people were highly mobile and their subsistence strategy focused on hunting large and small game and gathering seasonally available plants. A paucity of ground stone tools has led some to conclude that vegetal resources were not heavily utilized during this period (Rogers 1966; Warren 1967; Moratto 1984).

Two cultural complexes, San Dieguito and La Jolla, have been identified in the San Diego region, including the five-mile area surrounding the Project. Distinguishing between these two complexes has presented much fodder for debate. Crescents, bifaces, and scrapers are believed to be more common in San Dieguito site assemblages. Further San Dieguito lithic technology appears to be based on a combination of percussion and pressure flaking techniques, with a material preference of fine-grained felsitic (fine-grained igneous rock consisting essentially of quartz and feldspar) rock. San Dieguito sites are typically found on mesas, ancient desert terraces, inland dry lakes, and near river valleys and coastal lagoons

(Warren 1966). La Jolla assemblages on the other hand are dominated by more “crude” hammers/choppers, cores, and manos. Tools in this complex are considered inferior to San Dieguito tools and are typically made of water-worn cobbles (Laylander 2011). The La Jolla complex has been identified primarily in coastal settings, transverse valleys, sheltered canyons, benches, and knolls (Wallace 1955, Moriarty 1966).

The traditional view has placed La Jolla sites as later temporally than San Dieguito sites, but more recently this view has been challenged by new theories that propose the complexes are representations of different functions rather than cultural/population or temporal differences.

Archaic-Late Prehistoric Transition

There is also debate regarding the transition from Archaic to Late Prehistoric populations. In general, four theories have been postulated and have been summarized by Laylander (2011):

- Archaic populations persisted into the Late Prehistoric, their culture evolving independently and in place;
- Populations were influenced by neighboring groups and possibly by immigration of those groups into the San Diego region;
- Neighboring groups migrated into the San Diego area, displacing earlier populations; or
- An occupational hiatus occurred in the San Diego area as Archaic populations moved or died out and Late Prehistoric populations later migrated in.

In any case, there is a demonstrated scarcity of radiocarbon dates in the region surrounding the Project between 1300 BC and AD 200. Linguistic studies have identified a separation or transition of local, ethnographically-known languages at approximately the same time.

Late Prehistoric Period

The Late Prehistoric Period in southern San Diego County spanned between 1300 BP and Spanish Contact and is the most well-represented chronological period in the 5-mile region surrounding the Project. In this region, the period is represented by the Cuyamaca complex. Cuyamaca populations are regarded as the ancestors of the ethnohistorically documented Kumeyaay culture. This complex is defined by the use of the bow and arrow, smaller projectile points, presence of obsidian and pottery, changes in mortuary practices from inhumations to cremations, and an emphasis on inland/upland food gathering (e.g. acorns, piñon nuts) and processing. Settlement patterns in the San Diego and Project area range from permanent villages along or near water courses, or semi-permanent seasonal village sites, to temporary camps. Artifact assemblages include small, triangular pressure-flaked projectile points (Cottonwood and Desert Side Notched series), serrated projectile points, Butte obsidian, portable milling implements, bedrock milling features, buff and brownware pottery, bone awls, *Olivella* shell beads, and other stone and shell ornaments and cremations. Pictographs, petroglyphs, and geoglyphs are also associated with this complex (Meighan 1954, Moratto 1984).

During this period, numerous trail systems developed for short- and long-range travel as people continued to diversify their resource base by accessing nearby habitats and acquiring goods through long distance trading networks. One was noted by Gallegos (2002:Figure 3.2) as along the southern bank of the San Diego River, south of the Project. The numerous canyons and drainages of the five miles surrounding the Project were likely also used as travel routes between the more coastal environments west of the Project and the more mountainous, higher

elevation environments to the east. Commodities such as obsidian, marine shell, fish, and salt were traded and purchased. Late Prehistoric sites are generally associated with water sources, aquatic resource areas, trails, pictographs, petroglyphs, bedrock grinding surfaces, permanent and temporary camps, caches, and rock shelters (Moratto 1984).

2.2.2 Ethnohistoric Context

The Project falls within the territory ethnographically inhabited by the Kumeyaay, a Yuman-speaking group of the Hokan language stock. The Kumeyaay occupied territory extending from the Batiquitos Lagoon in the north, south past Ensenada, Mexico, west to the Pacific Ocean, and east to near the Colorado River. They have typically been lumped with Diegueño groups and, as a result, are not specifically described in ethnohistoric documents (see Hedges 1975, Kroeber 1925, Luomala 1978). In the 20th century, the Yuman-speaking bands of southern California and northern Baja California acquired the tribal name of Kumeyaay. They are also referred to as the Ipai (northern region), Tipai (southern region) and the Kamia (eastern desert region) (Luomala 1978). Research efforts for this Project did not encounter an ethnographic study focused on the Project area and the surrounding five miles. Therefore, the following discussion is based upon ethnographic information known from within the general San Diego region and traditional Kumeyaay territory.

Traditionally the Kumeyaay were mobile hunters and gathers that existed in autonomous bands, exploiting a variety of coastal, mountain, and desert environments, with occasional use of the Imperial Valley for agriculture (Hedges 1975:81). Ethnographic accounts identify four Kumeyaay groups: coastal, hill, mountain, and desert. Given the wide traditional Kumeyaay territory their available resource base and economy were equally as varied and could be based on maritime or terrestrial resources, depending on a village location (Gallegos 2002:31). Settlements were scattered although valley areas have been identified as the preferred setting for settlements, providing the widest range of available resources. Band size varied as people moved through a seasonal gathering round for available water, plant, and animal resources. Western and eastern Kumeyaay groups would meet in autumn in the mountainous regions to harvest acorns, trade, and conduct ceremonies (Hedges 1975, Luomala 1978, Gallegos 2002). In fact, Gallegos (2002:Figure 3.2) indicates a major trail leading from the coast, along the southern bank of the San Diego River past the Project area, and east into the mountains. Late Period settlements included multiple loci of activity. Most would have incorporated at least two permanent base camps and special-purpose sites, such as quarries or milling stations (Luomala 1978; Gallegos 2002:31).

As with most Native American groups, little is known regarding the religious practices of the Kumeyaay. Several peaks within their territory though are known to have sacred qualities. These include Kuuchamaa (Tecate Peak), Table Mountain, Mount Signal (Eagle Mountain), Jacumba Peak, Mount Woodson, Viejas Mountain, and Otay Mountain (Shipek 1985:67, 69, 71). Most of these are along the United States and Mexico border south of the Project or in the Imperial Valley or Colorado Desert, well east of the Project. Mount Woodson and Viejas Mountain are the nearest to the Project, approximately 11 miles north and 18 miles east, respectively.

Dwellings varied from windbreaks, caves and rock shelters, and sunken, dome thatched structures with wooden pole framework (Luomala 1978). The selected structure type depended on need, the season, locality, and available raw materials. Kroeber describes structures as earth-covered with three posts in a row and connected by a short log balanced across the top.

Additional poles were then leaned against the sides and covered with brush. The design of these structures has been attributed to an interaction sphere with Luiseno, Cahuilla, and the Colorado River tribes (Kroeber 1925:721).

Many of the technological changes seen in the ethnographically documented Late Period, including improvements in hunting technology and food storage, can be attributed to innovation and diffusion. These include several ethnographically documented features such as the brush-covered dwellings described above, sweat houses, small cooking hearths, roasting pits, heating platforms, granary bases, milling slicks, bedrock mortars, and pictographs (Gallegos 2002:37). Also during this time the bow and arrow were introduced, as evidenced by accounts that three of Cabrillo's sailors were wounded by such at San Diego Bay. The source of obsidian, obtained by trade and apparently rare in the Project and surrounding five-mile region, also changed in the Late Period from the Coso source to the closer Obsidian Butte source, though access to Obsidian Butte varied with the water level in Lake Cahuilla. Burial practices were also altered, switching from burial to cremation, presumably for the purposes of public health (Gallegos 2002:35-36). Evidence of burial practices is present within the large sites of the San Diego River Valley south of the Project.

Hunting resources consisted of small game such as rabbit, rodents, and birds, and occasional bighorn sheep and deer. A wide variety of seeds and plants were gathered including acorns, rice grass, piñon nuts, wild plums, mesquite pods, yucca, agave (mescal), and cacti (Luomala 1978, Spier 1923). Being within proximity to the San Diego River (one mile), Pacific coast (14.5 miles), and San Diego Bay (13 miles), the Kumeyaay of the Project area likely also made use of fish, shellfish, marine mammals, and aquatic plants for subsistence as well as tools, cordage, and adornments (Moratto 1984). Cultural use of resources, particularly coastal resources, would have been affected by the Medieval Climatic Anomaly during the Middle to Late Holocene (AD 900-1350) (Jones, et al. 1999; Gallegos 2002:27). The warming and arid climate during this time resulted in sedimentation of coastal lagoons, subsequently shifting settlement and subsistence patterns into canyons where resources were more dependable. Interpretations of San Diego's ethnographic record with respect to systems of settlement have varied based on location. As Laylander (2011) notes some studies suggest that eastern Kumeyaay groups moved seasonally through a range of habitats as groups combined and divided along the way. Other Kumeyaay communities are reported to have been distributed between permanent central villages and outlying, more temporary "homesteads." Laylander (2011) also describes regional debate that field camps would have been located within proximity to a few specific resources, while residential bases would have been located within proximity to a wide range of resources. Overall, however, it appears that most efforts to interpret the ethnographically documented Late Prehistoric settlement system focused on northern San Diego County. In general, it appears that the Kumeyaay had a relatively flexible system of nonpermanent settlements. Nevertheless, Gallegos notes that settlement of the San Diego River Valley has been continuous for the past 7,000 years (Gallegos 2002:27, 35). Little study regarding early settlement systems in San Diego has been conducted, including studies that would have covered the Project and surrounding five miles.

Today, the descendants of the Kumeyaay bands are divided among 12 reservations in the southern portion of San Diego County, and the Luiseño bands are divided among five reservations in the northern portion of the county. The traditional origin belief of the Kumeyaay people is expressed through the oral tradition of ceremonial song cycles, known as the Bird Songs. These songs describe how the Kumeyaay people were created within the region and

have been there from the beginning of time. They believe there is continuity between the ancestral coastal, mountain, and desert people of the region and the Native descendants of today (Wilson 2001, Russell et. al 2007).

2.2.3 Historic Context

Written history in the area begins with early Spanish mission settlement and exploration, Euro-American settlement, railroad and mining development, and the military. The first Spanish mission and presidio was founded in 1769 at present day San Diego, followed by San Luis Rey (1798), the San Luis Rey Mission at Pala (1816), and Chapels of the San Diego Mission at Santa Ysabel (1818). Local Native American tribes were indoctrinated into the mission system as a source of forced labor under the auspices of religious conversion. One of the first Spanish expeditions through the region was Don Gaspar de Portola in 1769, headed north to Monterey. Portola's route remained along the coast however, away from the Project area (Carrico 1977). Juan Bautista de Anza led another expedition in 1774 through what is now San Diego County to establish an overland route. This route remained well east of the Project, running through the western edge of the Colorado Desert (NPS 2011), but once established served as a route for supplies and personnel moving north from Mexico to the missions in California. Explorers such as Portola and de Anza introduced horses, cattle, agricultural tools and products, and new architectural and construction styles to the San Diego region, including the Project area and surrounding five miles. In 1821, Mexico successfully revolted against Spain, achieving independence and shifting control of southern California to Mexico. During this time, cattle ranching dominated agricultural activities in the region. After the signing of the Treaty of Guadalupe Hidalgo, California became a territory of the United States and in 1850 achieved statehood (Robinson 1948).

The 1849 California Gold Rush brought thousands of diverse immigrants to the state. By 1854, the San Diego Trail (formally Pedro Fages' Oriflamme Canyon route) became the main route for travelers coming from the east. In 1865, the San Diego to Fort Yuma Wagon Road was opened. This access road later became the basis of the Old Highway 80 alignment (Bates 1970, Rensch 1957).

During the 1860s through the 1870s, settlers were drawn yet again to the San Diego region due to the discovery of gold near Cuyamaca and Julian. The first lode was discovered in 1870 at the Julian Mine. The mines were worked by individuals and by corporations such as the Chariot Mining and Milling Corporation. Production for mining peaked between 1872 and 1873 and was only practiced at a small scale level after the rush (Cook and Fulmer 1981). The increase in population and migration created the need for efficient transportation corridors in the region. Several trails, stage roads, and eventually rail lines and automobile roads crossed the area, providing a means of travel and transportation of supplies for people.

Homesteading was also encouraged in the region in the late 1800s. The historic community of Linda Vista was established in 1886 as a dispersed settlement of farmsteads centered northwest of the Project area in San Clemente Canyon. However, the community was considered to cover farmsteads scattered across the immediate area practicing mixed farming, including cattle and chicken ranching and growing wheat. Residents constructed wells in canyons and pumped water up to the mesas to supplement the limited water supply in the area. Earthen dams were also constructed across drainages and cisterns were used to store rainwater for household use. The community declined and eventually ceased when the community school closed in 1912 and devastating flooding occurred in 1916. The establishment

of military facilities in the area displaced any remaining community members (Hector et al 2004:18-20).

Several military facilities have existed within the boundaries of what is now Marine Corps Air Station (MCAS) Miramar, north and west of the proposed Project. These included Camp Kearny (National Guard, 1917-1920), Camp Holcomb/Camp Elliot (1934-1960), Naval Auxiliary Air Station, Camp Kearny (1943-1946), and Miramar (1946-present) (Hector et al 2004:20-23). The activities of all of these bases were focused to the east and west of the Project Area in Sycamore and San Clemente Canyons, respectively.

2.2.4 Archaeological Context

The neighboring mesas and especially the valley to the south, known in Mission records as the Valle de San Luis (Robbins-Wade 2001:2), are rich in archaeological resources. Indeed several of the best known sites and sites with extensive time depth (CA-SDI-204, CA-SDI-8594, CA-SDI-9242, CA-SDI-9243, CA-SDI-10148) are in this area as well as further upstream along the San Diego River. However, as several previous surveys have noted much of the archaeological record along the San Diego River has been destroyed by development (Robbins-Wade 2001).

Based on the literature review for the Project, archaeology in the five-mile region surrounding the Project is dominated by prehistoric archaeological sites, specifically lithic scatters and bedrock milling sites. Both site types make use of the abundant naturally occurring and lithic resources of the Project area and surrounding five miles, including numerous eroding cobbles and rock outcrops. Further, sites in the environmental context of the Project do not appear to extend much below the surface (see Hector, et al. 2004 and Smith and Burke 1994). Within the one-mile radius records search conducted 53 prehistoric isolated artifacts (less than five within 50 meter radius) were identified, including at least 31 flakes, 19 cores, six tested cobbles, one hammerstone, one scraper, and one biface. Within the same radius 56 prehistoric sites (28 lithic scatters, 15 bedrock milling sites, five habitation sites, four temporary camps, and four lithic scatters and with groundstone), two historic sites (a cistern and the San Diego Mission Dam), and one multicomponent site (prehistoric lithic scatter with historic refuse) were recorded.

Bischoff, et al. (1995) notes that MCAS Miramar, the eastern boundary of which is approximately 1.5 miles west of the Project, has conducted several large surveys that have documented numerous archaeological sites within the Station's approximately 23,314 acres. At the time of Bischoff, et al.'s reporting 135 archaeological sites (93 prehistoric and 42 historic) and nine isolates (all prehistoric) had been recorded on base. Prehistoric resources include 78 lithic scatters, five bedrock milling sites, and five habitation sites. Historic resources include 19 refuse deposits and 20 structures/features (foundations, stone concentrations, dams, military use areas, a farmstead, a cemetery, a well, and narrow gauge railroad tracks). A post brush-fire of 9,635 acres of the Station in 2004 following the 2003 Cedar Fire identified only 13 new archaeological sites and two isolates. These newly recorded sites consisted of three prehistoric bedrock milling sites, one prehistoric concentration of stone artifacts, a 1929-1930 pick-up truck, historic-era well, a homestead, a refuse deposit, military refuse, and military structures/features (Giacomini and Caudell 2004). A survey of a large portion of the base conducted by Gallegos and Associates in 1992 developed a sensitivity model for the area that indicates ridgelines, which dominate the topography of the region, have the highest resource density, with one site per 64 acres. As a result of the study the Station assigns a higher priority to ridgelines and drainages in reconnaissance level investigations (Bischoff, et al. 1995:18).

The best known site in the region is in the Valle de San Luis along the San Diego River, approximately 0.75 mile south of the Project. CA-SDI-203 was originally recorded by Malcolm Rogers as a permanent village site with deposits ranging from the Early Archaic to Protohistoric Period, when, Rogers asserts, the Native American occupants were used to construct the Mission Dam. Notably, the site included numerous cremations, some inhumations, bedrock mortars, a paucity of shellfish, glass beads, bow pipes, projectile points (Robbins-Wade 2001).

Additional References

- Carrico, Richard L. 1977. Portola's 1769 Expedition and Coastal Native Villages of San Diego County. *The Journal of California Anthropology*, 4(1):31-41.
- Gallegos, Dennis R. 2002. Southern California in Transition: Late Holocene Occupation of Southern San Diego County. In Jon M. Erlandson and Terry L. Jones, eds., *Catalysts to Complexity – Late Holocene Societies of the California Coast*. Perspectives in California Archaeology 6:27-40, Cotsen Institute of Archaeology, University of California, Los Angeles.
- Hedges, Ken. 1975. Notes on the Kumeyaay: A Problem of Identification. *The Journal of California Anthropology*, 2(1):71-83.
- Jones, Terry L., Gary M. Brown, L. Mark Raab, Janet L. McVickar, W. Geoffrey Spaulding, Douglas J. Kennett, Andrew York, and Phillip L. Walker. 1999. Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly. *Current Anthropology*, 40(2):137-170.
- National Park Service (NPS). 2011. Juan Bautista de Anza National Historic Trail Guide: San Diego County. Electronic document, http://www.solideas.com/DeAnza/TrailGuide/San_Diego/index.html, accessed October 16, 2011.
- Shipek, Florence C. 1985. Kuuchamaa: The Kumeyaay Sacred Mountain. *Journal of California and Great Basin Anthropology*, 7(1):67-74.

Cultural Resources: Appendix B (g) (2) (B)

Information Required:

Please provide copies of all California Department of Parks and Recreation (DPR) 523 forms for the cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36 CFR 60.4(g)).

Response:

Hard copies of DPR 523 forms for the cultural resources identified in records search, as well as courtesy hard copies of survey reports previously submitted electronically, were provided under confidential cover to the CEC on September 22, 2011, referencing the AFC docket number.

Cultural Resources: Appendix B (g) (2) (C)

Information Required:

Page 4.1-16 notes that the portions of the survey area that have a slope \geq 35 percent were not subject to survey. Where those portions are and what the size of those portions are, are

unknown to staff. Page 4.1-20 notes that the proposed project is still evolving and that “the eastern end of the North Loop overhead line portion of the gen tie route, has been preliminarily designed to extend outside of the surveyed area” and that “the SDG&E switchyard, has been preliminarily placed along the boundary of the surveyed area in Spring Canyon,” where the CEC-required 200-foot survey buffer would now extend outside of the surveyed area. The new pedestrian survey for the proposed project is therefore incomplete. Please provide either a detailed map, at a scale of 1 in. = 500 ft. or greater, that depicts accurate boundaries of the portions of the survey area that were not surveyed and a compelling, explicit rationale for the choice of ≥ 35 percent as a threshold to not survey sloped terrain, or the results of a survey of those same portions of the survey area. In addition, please provide the results of a survey of those portions of the reconfigured survey area that, due to the reconfiguration of the proposed project, fall outside of the original survey area.

The present technical report does not adequately conform to the ARMR format. Please provide inserts for the technical report that develop, pursuant to section VII of ARMR, a research design for the archeological resource base in the project area, and that incorporate the direction of section X of ARMR into the report’s conclusions. Such a research design would ostensibly interpolate archaeological resource distribution patterns from the archaeological synthesis that would typically be one result of background archival research to derive a model of the archaeological remains that one would anticipate finding in the project area itself. That model would then be used to validate or question, and interpret the results of any new pedestrian surveys.

Response:

A USGS map depicting the boundaries of the pedestrian survey and slopes ≥ 35 percent within that area is provided as Figures 3-4a and 3-4b (see Attachment C.1). Note that some slopes of ≥ 35 percent were surveyed simply as a result of accessibility to the surrounding area.

Please note that the survey methodology/protocols were described at the Quail Brush June 8th Pre-Application meeting and no concerns or issues were voiced by the CEC at that time. The 35 percent slope limit is commonly used during archaeological survey as a health and safety precaution. Moreover, slopes steeper than this typically do not contain *in situ* cultural deposits. Exceptions are made for areas such as rock outcrops or where structures may be visible from afar. No such areas were observed during the pedestrian survey in May 2011.

A new survey has been planned to account for the poor ground surface visibility experienced during the May 2011 pedestrian survey and to cover areas and buffers subsequently designed outside of the original survey area. The new design has been submitted to the City of San Diego for review and agreement (the City has planning responsibilities regarding removal of a portion of the APE from a Habitat Conservation Area). The survey design and an accompanying map can be found as Attachment C.2 to this Supplement.

In order to respond to the data request, portions of the technical report provided as a confidential attachment to the AFC have been reorganized according to Sections VII and X of ARMR. When the additional survey work is completed and the technical report is revised to include the results from that survey, this discussion will be incorporated. A newly formulated research design has been added as Section 3.4 of the technical report and is provided below.

3.4 Research Design

The objective of this survey investigation is to gather information to more fully evaluate the potential impact of the Project. This effort is part of Quail Brush Genco LLC's fulfillment of CEQA, requiring such an evaluation, on behalf of the CEC. Depending on the type of resource(s) encountered, a wide range of research topics could potentially be addressed by cultural resources identified by the investigation (or subsequently in the event of an unanticipated discovery). The cultural and archaeological contexts described in Chapter 2 and the results of the records search described in Chapter 3 suggest that the following site types have the highest potential of occurring in the APE: lithic scatters, habitation sites, milling sites, quarry sites, temporary camps, special use localities, historic refuse deposits, homesteads, military-related features, and isolates. The research topics discussed below are not inclusive of the full range of interests within the San Diego region, but are consistent with current and local research trends. Laylander (2011) suggests several research themes and future directions for San Diego archaeology. Similarly, past studies on MCAS Miramar have identified research questions that are more specific to the Project location. The following research themes and questions are based upon these current and nearby archaeological research efforts, but are limited to topics applicable to resources with the highest potential of being found in the APE based upon archival research conducted for the Project.

3.4.1 Expected Site Types

Archival research has revealed that the Project is adjacent to areas of high archaeological site density. However, relatively very few sites and isolates have been found within the Project area despite several surveys having been conducted. The resources that have been identified are primarily prehistoric in context and are typically found atop the ridgelines and toes of the topographic features present in the Project area. The potential site types described below are based upon the cultural, natural, and archaeological context of the Project.

Prehistoric and ethnographic background context, recorded archaeological site data, the topographic features of the Project, and the proximity of the Project to the Pacific Coast, San Diego River, and other freshwater sources suggest that the following prehistoric site types could be encountered during the survey: lithic deposits, habitation sites, milling sites, temporary camps, and isolates. Given that the Project area was historically within the boundaries of MCAS Miramar and based on the few historic sites that have been recorded in the area, expected historic site types include: military sites or features, refuse deposits, homestead remnants, rock cairns or alignments, foundations, and military-related isolates.

3.4.2 Prehistoric Site Research Themes and Questions

Site Formation Processes. A variety of post-depositional processes can affect the integrity of an archaeological site, including deposition, erosion, bioturbation, and modern disturbance (i.e. construction). Therefore, identifying a site's formation processes, natural or cultural, is key to delineating horizontal and vertical distribution of artifactual materials. This affects our understanding of the site's chronology, purpose of features, discard of refuse, and the role of the site in the larger site distribution pattern. As Hector, et al. (2004:27) note, inland sites in settings similar to the Project are typically surficial due to the lack of natural deposition along ridgelines. Further, sites are typically dominated by lithic artifacts and lack temporally diagnostic artifacts and organic materials that could be dated.

Data Needs: As assessment of formation processes requires identification of the occupied landform, depositional setting, and post-depositional disturbance factors (i.e. bioturbation, modern development).

Chronology. Understanding a site's chronology provides the foundation for addressing most other research themes and questions. Research questions include:

1. Is there evidence of Late Pleistocene/Early Holocene (Paleoindian/Early Archaic) use or occupation of the site?
2. Can the site provide data that would contribute to the debate regarding the San Dieguito and La Jolla complexes? Does the data suggest population replacement, acculturation, or transformation? Or does the data simply suggest the complexes represent differences in the function of the complexes, constrained seasonal use, or use based upon gender?
3. Can the site provide data that would contribute to the understanding of the Archaic/Late Prehistoric Period transition?
4. Does the site include evidence of ethnohistoric/historic use? Is there continuity with a preceding Late Prehistoric Period occupation?

Data Needs: Addressing questions of chronology require the presence of materials suitable for absolute and relative dating, such as radiocarbon samples (organic materials including shell, bone, and charcoal), obsidian (for hydration dating), and diagnostic artifacts (tools, projectile points, beads and ornaments, ceramics).

Lithic Technology and Use. Laylander (2011) notes that there is wide diversity in the lithic material assemblages seen in San Diego's prehistoric archaeological sites. Differences in materials recovered between sites has been attributed to chronological changes in technology, mobility, or exchange systems or to differences in accessibility to lithic sources due to geographic constraint. Research questions regarding lithic materials include:

1. Do the lithic materials and tools present suggest a preference for specific materials used in making stone tools? If so, did these preferences change with time?
2. What is the nature of the lithic assemblage present at the site (i.e. formal vs. expedient) and in the Project area? Do the assemblages change over time? What do these characteristics suggest about the prehistoric use of the Project area?
3. Does toolstone selection appear to have been affected by geographic location or constraint? Is there a preference for local materials over more distant and perhaps better quality materials?

Data Needs: Analysis of assemblages can show if there is a preference for formal or expedient tools, methods of reduction and manufacture, raw material preferences, etc. Addressing questions of lithic material use and preference requires the site to contain formal stone tools and the identification of materials present, and knowledge of the underlying and surrounding geologic formations. Chronological control using data described under the research theme of Chronology would also be required to determine changes through time.

Milling Sites. Bedrock mortars and portable milling stones can be numerous or scarce in San Diego County, depending on the site and location. Their contexts and forms are highly varied and several theories related to chronology, ethnicity, and function have been proposed.

Research questions pertaining to milling implements focus on chronology, ethnicity, and function.

1. Do milling implements at the site contribute to an understanding of when the mortar was introduced? Does the density of milling implements at the site change with time? Does their form change?
2. Can residue analysis be used to identify what resources the milling implement was used on?

Data Needs: A site that contains milling implements will require chronological controls such as those discussed above in order to address these research questions. Further, standardized data regarding form (i.e. diameter, depth) and material, as well as standardized data regarding extent of use (the number and configuration of used surfaces, patterns of shaping and use wear, and tool condition) would be needed. Floral, faunal, and mineral surface residues would be required to determine function.

Inland Use of Marine Resources. Although the Project area is considered to be within a coastal region and experiences coastal weather patterns, it is still approximately 20 miles inland from the Pacific Ocean, which would have made obtaining marine resources more difficult. Terry Jones (1992:2) suggests that a coastal foraging strategy would become infeasible at approximately 6 miles from the coast. Inland from this a more terrestrial oriented hunting and foraging strategy would have been practiced. Marine resources are mostly found at processing and habitation sites within 0.5 to 1.25 miles of the San Diego coast. However, small quantities of marine resources, particularly shell, do occur at sites farther inland. The interpretation of marine resources found at inland sites may contribute to research themes of prehistoric mobility patterns, exchange systems, and the use or function of marine resources (Laylander 2011). Applicable research questions include:

1. What types of marine resources were used by site occupants? Were they used for subsistence, decoration, or other function?
2. From what coastal locality were the marine resources collected? What does this say about the method of obtainment?

Data Needs: In order to address questions related to inland use of marine resources, data regarding shell and sea mammal species present within the archaeological matrix are required as well as a standardized description of any modifications. Additionally, determining the most likely collection location would be necessary.

Villages and Camps. A wide variety of habitation sites have been identified in the archaeological record of southern San Diego County, including the five miles surrounding the Project. Such variety is noted in the various site sizes and the density and diversity of cultural materials present. Such differences between sites may be attributable to group sizes, period of occupation, and the range of activities practiced there. Identifying patterns in habitation site variability can help to reconstruct prehistoric social organization and economies. Laylander (2011) identifies several signatures that can be used to distinguish a habitation site type or settlement system: site size, presence or absence of midden, the presence and density of functional elements, presence or absence of exotic materials or trade items, degree of diversity in the artifact assemblage, indicators of season (i.e. floral or faunal remains), the natural setting of the site, and the spacing between contemporaneous sites. Questions related to villages and camps would include:

1. How does the village or camp fit into the settlement pattern of the area? Is there a preference for particular biotic communities/habitats in relation to site type? Were individual settlements located primarily to maximize access to a particular resource, or to maximize the diversity of the accessible resources?
2. What types of activities were practiced at the site? Is there indication of seasonality, trade, specialization?

Data Needs: In order to address issues of prehistoric social organization and economies at village sites and temporary camps, standardized observations of site size and soil characteristics will be necessary. The presence of exotic materials, features associated with storage and ceremonies, and indicators of seasonality will also be necessary. The density and diversity of the artifact assemblage as well as the variety of tools will also require standardized documentation. Mapping of the site relative to surrounding sites, resources (particular prehistoric distributions of those resources), and travel routes would also be necessary.

3.4.3 Historic Site Research Themes and Questions

Historic Refuse Deposits. Historic period refuse deposits are concentrations of intentionally abandoned domestic, construction, and industrial refuse that often lack association with a known habitation, or have no identifiable spatial association with remnants of other historic activity. Research questions include:

1. What was the chronological time frame of the deposit?
2. Does the deposit represent several dumping episodes over time?
3. Which functional domains are represented (e.g., homesteading, mining, railroad, military training activities)?
4. Is the deposit associated with an historic road or trail?

Data Needs: Analysis of historic-era records and documents of the properties near the refuse can provide information on occupants and activities in the region. Standardized dating of historic refuse materials (i.e. glass, ceramics, metal, cans, etc.) using industry accepted research sources (i.e. Lehner 1988, Toulouse 1971, and Rock 1989) would be necessary to determine the deposit's associated time period and duration of use.

Ranching and Homesteads. Historic period homesteads and farming/ranching features could include structural remains, wells, irrigation features, corrals, and watering troughs. Research questions include:

1. How was land acquired by settlers in the region? What was their ethnicity?
2. Is there a relationship between water availability, location of habitation sites, and the duration of occupation?
3. How did ranching and agricultural technology and practices change through time?

Data Needs: Analysis of historic-era records and artifacts (faunal remains, glass, ceramics, metal, cans, etc.) can allow the archaeologist to draw conclusions about the social class and ethnicity of the site inhabitants, duration of occupation, and quality of life, compared with the remains from other sites in the region. Ranging and agricultural technologies can be identified from features or artifact material such as machinery remnants, structures, windmills, and irrigation system remains.

Military-Related Activities. Archaeological sites associated with historic MCAS Miramar activities have been identified on Miramar. Given that the Project area was historically within the MCAS Miramar boundaries, similar resources may be present. Historic period military features could include refuse scatters, trails, track marks, rock alignments, and military-related isolates. Research questions include:

1. What type of military training activities (tactical, strategic, and logistical) took place in this portion of historic MCAS Miramar? How did that training prepare the troops for war? Is there evidence that the activities proved successful on the war field?

Data Needs: Data needs would be similar to those identified for historic refuse deposits. Military technologies can be identified from historic-era records and features or artifact material such as machinery remnants, military remnants, structures, trails, foundations, and rock features. Research can extend to primary sources such as unit histories and personnel records. Identification of specific units and individuals can also provide opportunities for oral history studies.

Additional References

Jones, Terry L. 1992 Settlement Trends along the California Coast. In: *Essays on the Prehistory of Maritime California*, ed. Terry L. Jones, pp. 1-37. Center for Archaeological Research at Davis Publication No. 10. University of California, Davis.

Lehner, Lois. 1988. *Lehner's Encyclopedia of US Marks on Pottery, Porcelain and Clay*. Collector Books, Paducah, Kentucky.

Rock, Jim. 1989. *Tin Canisters: Their Identification*. Document on file at Klamath National Forest, Yreka, California.

Toulouse, Julian Harrison. 1971. *Bottle Makers and Their Marks*. Thomas Nelson, Inc., New York.

Cultural Resources: Appendix B (g) (2) (C) (i)

Information Required:

The ethnographic, prehistoric, and historic summaries in the cultural resources technical report appear to be identical to those in the cultural resources section of the AFC, and, as such, staff would refer the applicant to our comment above on the latter summaries (see Appendix B (g) (2) (A)).

Response:

Please see response to Information Required under Appendix B (g) (2) (A).

Cultural Resources: Appendix B (g) (2) (C) (iv)

Information Required:

While staff can find this information parsed out over a number of separate maps, the AFC does not contain a single comprehensive map as required. Please provide the 1:24,000 scale, USGS 7.5' topographic quadrangle map depicting cultural resources.

Response:

A USGS 1:24,000 scale map depicting all previously recorded resources identified by the literature search as well as all cultural resources newly recorded as a result of the pedestrian survey has been submitted under confidential cover as Figure 7-12 (see Attachment C.3). This figure combines Figures 3-3 and 7-1 of the technical report (AFC Appendix C).

Cultural Resources: Appendix B (g) (2) (E) (i)

Information Required:

The proposed mitigation measures are referenced rather than discussed. Please first identify particular significant effects that the proposed project may have on significant cultural resources then explain how particular mitigation measures would mitigate such significant effects. In short, an analysis of the effectiveness of the proposed mitigation measures is not present; please provide this analysis.

Response:

Please note that none of the resources identified during the survey are located within the boundaries of the APE. Therefore, the Project is avoiding them and will have no impact on them, historical resources or not. If additional archaeological resources are identified within the APE during the forthcoming supplemental "shovel scrape" survey (see response to Appendix (g) (2) (c)) they will be evaluated for CRHR eligibility. If any identified resources are determined to be historical resources that cannot be avoided by the Project, Quail Brush Genco, LLC will consult with the CEC and consulted Native Americans and historical societies regarding acceptable treatment options to be completed prior to construction.

CUL-3, CUL-4, and CUL-5 have been revised to be more specific as to the CRHR evaluation of any unanticipated discoveries found during monitoring and construction: See Response to Information Required under Appendix B(g)(1) above.

Cultural Resources: Appendix B (g) (2) (E) (ii)

Information Required:

A set of contingency measures is present in the cultural resources AFC section. Staff has been unable to find any substantive analysis of the effectiveness of these measures. Please provide the analysis that resulted in the proposed contingency measures for this project.

Response:

Please see response to Information Required under Appendix B (g) (1).

Cultural Resources: Appendix B (g) (2) (E) (iii)

Information Required:

A provision is made for worker education, but staff has been unable to find any substantive analysis of the effectiveness of this measure. Please provide the analysis that resulted in the proposed worker education program for this project.

Response:

CUL-2 has been revised to be more specific as to the content of the Worker Education Program:
Please see response to Information Required under Appendix B(g)(1) above.

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Paleontological Resources

Paleontological Resources: Appendix B(g)(16)(D)

Information required:

The AFC stated that there are paleontological localities in canyons adjacent to the proposed project site. If these localities are within a one-mile radius of the project then please provide a 1:24,000 scale map and submit in a confidential filing together with available survey reports and locality records.

Response:

A letter presenting the results of a paleontological record search conducted for the Project is submitted under confidential cover as part of this supplemental AFC. Included with the letter are the paleontological locality records search from San Diego Natural History Museum and map of fossil localities within one mile of the Project site, also submitted under confidential cover.

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Project Overview

Siting Regulations: Appendix B (a) (1) (B)

Information required:

Please provide the location of the proposed linear infrastructure facilities (e.g. electrical transmission lines, natural gas line) by section, township, range, county and assessor's parcel numbers.

Response:

This information is provided on Figure 2.1-2 in Attachment E. The proposed Project is located within Township 15 South, Range 1 West, Section 7, Township 15 South, Range 2 West, Section 12, and unsectioned portions of the El Cajon and Mission San Diego Land Grants, within the La Mesa, California, United States Geological Survey (USGS) 7.5-minute topographic quadrangle map.

Siting Regulations: Appendix B (b) (1) (A)

Information required:

Please provide maps at a scale of 1:24,000 (1" = 2000'), along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities.

Response:

This information is provided on Figure 2.1-2 in Attachment E. The proposed Project is located within Township 15 South, Range 1 West, Section 7, Township 15 South, Range 2 West, Section 12, and unsectioned portions of the El Cajon and Mission San Diego Land Grants, within the La Mesa, California, United States Geological Survey (USGS) 7.5-minute topographic quadrangle map.

Siting Regulations: Appendix B (b) (2) (C)

Information required:

A complete response to the information requirements in the Transmission System Design worksheet will satisfy this deficiency.

Response:

See the Transmission System Design section of this supplemental AFC.

Siting Regulations: Appendix B (b) (2) (D)

Information required:

A description on how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electrical transmission Constraints; and

Response:

The final route of the 230kV gen tie line was selected based on access, ease of installation, avoidance of environmental sensitive areas and taking into consideration reliability/risk of existing SDG&E power lines. From the Project site, the gen tie ROW heads due north towards the Sycamore Landfill. The gen tie line will follow the outline of the landfill's property along the southwest side to avoid any additional disturbance to the area. As the gen tie approaches the existing SDG&E corridor the ROW will head due west to avoid having to cross the existing SDG&E transmission line (see Figure 2.1-2 in Attachment E). SDG&E does not want any other line crossing over the existing transmission lines to ensure transmission line reliability, hence, the gen tie will be undergrounded through the existing SDG&E corridor. The route from the existing corridor to the proposed SDG&E 230kV utility switchyard was based on the terrain in the area to eliminate the number of structures and disturbance to the area.

Traffic and Transportation

Traffic and Transportation: Appendix B(g)(5)(b)

Information Required:

According to the AFC (pg. 4.4-3), the project is located within 20,000 feet of Gillespie Field. The length of the runway is not provided. The air service discussion notes that project structures would be below the height threshold but the applicant will file the appropriate forms with the Federal Aviation Administration. Please discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.

Response:

The length of the Gillespie Field runways are:

- North-South runway = 4,141 feet
- East-West runway = 5,343 feet

The project will comply with all applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace. The project does not have a potential to obstruct or impede air navigation. Additionally, the project will not produce a thermal plume or visible water vapor plume. Glare will be minimized through appropriate design features, including but not limited to the use of non-glare paint and appropriate lighting (see Section 4.5.2.2 Project Visual Character and Visibility), to be developed in conjunction with the CEC and the City of San Diego. Electrical interference and surface structure height will comply with 14 CFR 77.13 et. seq. The Applicant will file Form 7460-1 with the Federal Aviation Administration at least 30 days prior to the date the proposed construction or alteration is to begin or the date an application for a construction permit is to be filed in accordance with 14 CFR 77.17.

Figure 4.4-3 displays the airport or airstrip runway configuration, the proposed power plant site, and related facilities.

Traffic and Transportation: Appendix B(g)(5)(C)(i)

Information Required:

Please provide design capacity for local roads.

Response:

Table 1 contains the design capacity for local roads.

Table 1. Quail Brush Existing Street Segment Design Capacities

Street Segment	Existing Design Capacity (LOS E) ¹
Mast Boulevard	
SR 52 to West Hills Parkway/Project Driveway	40,000
West Hills Parkway/Project Driveway to Fanita Parkway	40,000
Fanita Parkway to Carlton Hills Boulevard	40,000
West Hills Parkway	
North of Carlton Oaks Drive	40,000
South of Carlton Oaks Drive	40,000
Mast Boulevard to Mission Gorge Road	40,000
Mission Gorge Road	
East of W. Hills Parkway	57,000
West of W. Hills Parkway	50,000

Notes:

¹Capacities based on City of Santee or City of San Diego Roadway Capacity Tables

Transmission System Design

Transmission System Design: Appendix B (h) (2) (B)

Information required:

Provide a physical layout drawing showing distinctly (in a larger scale) the selected route (along any road or land) of the proposed 230 kV overhead and underground interconnection line including Right of Way (ROW) width(s) between the proposed Quail Brush Generation Project (QBP) 230 kV switchyard and the proposed SDG&E 230 kV switchyard. Describe whether the ROW would be through private and/or public lands.

Response:

The generation tie-line (gen tie) is provided in Attachment G Exhibit 1, Ampirical Solutions, LLC (Ampirical) Drawing No. QB-Planview Sheet 1 of 1, Quail Brush 230kV Transmission Line Plan View. The drawing depicts the 230 kV overhead and underground lines including the associated right-of-way (ROW) widths. The ROW for the 230 kV gen tie and the transmission line 230 kV loop lines are located on private lands.

Transmission System Design: Appendix B (b) (2) (C)

Information required:

Resubmit Tangent Pole design diagram (Figure 2.5-1) for the 230 kV generator overhead tie line showing ground clearance from the lowest conductor, height of the pole above and below ground and the ground conductor, if any with its size. Also include design diagrams of dead-end pole or structures for the overhead tie line at each end showing configuration of insulators and conductors with their respective position measurements on the pole including their heights. Include the proposed underground 230 kV single core UG cable line termination on the dead-end pole with their configuration, size, type and ampere rating. Submit details of the proposed UG cable tie line.

Submit a complete electrical one-line diagram (or resubmit Figure 2.5-2 with missing elements or sizes/ratings) of the proposed QBP 230 kV switchyard showing all equipment for all 11 generator units interconnection with the switchyard along with their respective sizes and/or ratings as follows: i) Any bus duct connectors or overhead conductors or cables, 13.8 kV switchgear, buses, breakers & disconnect switches on the low side of Generator step-up transformer (GSU). ii) The GSU and short overhead conductors and/or cables from the GSU to the switchyard with the configuration for the switchyard buses, breakers, disconnect switches on the 230 kV side, along with the proposed tie line transmission outlet from the switchyard.

Provide a one-line electrical diagram showing the proposed SDG&E 230 kV switchyard with the transmission outlets along with the configuration for buses, breakers, disconnect switches, and their respective sizes and/or ratings. Also provide a physical layout drawing.

Response:

The design diagram for all transmission pole structures providing required dimensions and wire sizes are provided in Attachment G, Exhibit 2, Ampirical Drawings (Framing: A-D-BF2-S-230;

Framing: SDJ-V-DEP-S-230; Framing: S3DJ-DEP-S-230; 230kV Transmission Riser Pole). Each structure has been identified with a unique tag number on the Transmission Line Drawing and is specifically referenced by a tag number on the appropriate Ampirical Drawing.

The gen tie utilizes underground circuit for a short distance. It will use 230 kV solid dielectric LDPE or XLPE cable 400 mm square aluminum conductor rated for 400 amperes in the duct banks configuration shown on the Plan and Profile Drawings presented in Attachment G, Exhibit 3, Ampirical Plan and Profile Drawing No. QB230-PP, Sheets 1 and 2. As requested, these exhibits show sags and ground clearances for both the gen tie and transmission line 230 kV loop lines.

The Electrical One Line Diagram provided in the AFC is superseded by Exhibit 4, Key One Line Diagram, which shows appropriate ratings of all components including the 11 generator units, non-segregated phase buses between 13.8 kV switchgear and GSU transformer, 230 kV circuit breaker and disconnect switches, and the gen tie leaving the plant switchyard (conductors fully defined for overhead (ACSR), and the underground solid dielectric cable).

The SDG&E 230 kV switchyard one line diagram is also shown on Exhibit 4, Key One Line Diagram with all components fully defined. The SDG&E 230 kV Switchyard Physical Arrangements Drawing is included as Exhibit 5. A typical section view of the 230 kV SDG&E Switchyard is presented in Attachment G, Exhibit 6, San Diego Gas & Electric Company Sketch 3.

Transmission System Design: Appendix B (b) (2) (E)

Information required:

Submit proof of payment with a study plan for the signed Large Generator Interconnection Study Process Agreement (LGISPA) with the California ISO, dated April 16, 2010.

Response:

Proof of payment is provided in Attachment G, Exhibit 7.

Transmission System Design: Appendix B (i)(3)

Information required:

Indicate when the Phase II System Impact Study for the San Diego area Cluster 2 projects (including QBP) is expected to be completed by the California ISO.

Response:

The Phase II Interconnection Study Report for the Quail Brush Generation Project was issued by the CAISO on August 24, 2011. Copies of the Phase II Individual Project Report were filed with the CEC Docket Office on October 13, 2011.

ATTACHMENT A.1
APCD LETTER

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Air Pollution Control Board

Greg Cox	District 1
Dianne Jacob	District 2
Pam Slater-Price	District 3
Ron Roberts	District 4
Bill Horn	District 5

October 4, 2011

RICHARD GRAY
QUAIL BRUSH GENCO, LLC
9405 ARROWPOINT BLVD.
CHARLOTTE, NC 28273

Mr. Gray:

Reference is made to your application for Authority to Construct/Permit to Operate a peaker plant consisting of eleven 9.3-MW natural gas engines and one emergency diesel engine (Application Nos. APCD2011-APP-001822 through 001833) to be located on Sycamore Canyon Road in Santee. Please be advised that your application has been deemed incomplete and that the following additional information is necessary to complete the processing of this application.

1. Please specify the toxic emission factors and the source the emission factors used to estimate the air toxic emissions listed in Table 4.8-5 of the Application for Certification (AFC). Please include any supporting information including source test data.
2. In section 3.5.1.2 of the AFC, it was mentioned that the use of one LMS100 gas turbine or two LM6000 gas turbines would not provide the flexibility needed for this project and the efficiency of these boilers decreases at reduced loads. Please provide an analysis of using several smaller conventional simple-cycle combustion turbines (on the order of 9.3 MW each) as to whether they would be feasible for this project.
3. Please note that lack of commercial availability does not eliminate equipment from BACT consideration. It must be shown that the equipment is either not technologically feasible or not cost effective for this project. Therefore, please provide a revised analysis of the advanced combustion turbine processes, especially in relation to the use of smaller combustion turbines as specified in Item 2 of this letter.
4. Please confirm that Quail Brush Genco, LLC, its parent companies, or any of its subsidiaries are not associated with the Sycamore Canyon Landfill or any other companies operating at the Sycamore Canyon Landfill.

Please submit this information by 30 days of the date of this letter.

10124 Old Grove Road , San Diego, California 92131-1649 • (858) 586-2600
FAX (858) 586-2601 • Smoking Vehicle Hotline 1-800-28-SMOKE • www.sdapcd.org

Please be advised that operation of this equipment without written authorization is a misdemeanor subject to fines or penalties up to \$10,000 a day. This is not a Permit to Operate. If you have any question regarding this letter, please call me at (858) 586-2741.

Sincerely,

A handwritten signature in cursive script, appearing to read "Arthur Carbonell".

Arthur Carbonell
Air Pollution Control Engineer

AC

**ATTACHMENT A.2
RESPONSES TO APCD COMMENTS**

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ATTACHMENT A.2

RESPONSES TO APCD COMMENTS

The following paragraphs provide the substance of the Applicant's response to the APCD's October 4, 2011 completeness letter on the Quail Brush Project. It is noted that the exact language of the response may change based on meeting between the Applicant and the APCD regarding completeness.

1. The toxic emissions factors used for the Wartsila power cycle engines, the fuel gas and warm start heaters were provided in Appendix F.1 of the Application. The Wartsila engine factors are presented in Table F.1-3, the fuel gas heater emissions factors are presented in Table F.1-5, and the warm start heater emissions factors are presented in Table F.1-7. Each of these tables contain the references for the factors, which are re-iterated here for your review.

Wartsila power cycle engine toxic emissions factor references:

- a. CARB/CATEF database for natural gas ICE, SCC20200202, 4 stroke, lean burn, uncontrolled factors (mean values).
- b. Humboldt Bay Generating Station, Final Determination of Compliance, North Coast Unified AQMD, Table 6, 4-8-08.
- c. EPA AP-42, Section 3.2, Table 3.2-2, 7/2000.

Fuel gas and warm start heaters toxic emissions factor references:

- a. CARB/CATEF database for natural gas fired heaters, mean values, 10-1-97.
- b. San Diego APCD Toxics EF database, Table B17. Natural gas boilers, low NOx burners, <100 mmbtu/hr, updated 6-8-01, D. Byrnes.
- c. EPA AP-42, Section 1.4, Table 1.4-3, 7/1998.
- d. South Coast AQMD, <http://www.aqmd.gov/prdas/pdf/COMBEM2001.pdf>.

With respect to the inclusion of source test data, no specific source data was relied upon in establishing the air toxics emissions estimates in the Application, but we would note that a large majority of the factors noted in the references above are based on source testing, and that these references and emissions factors have been used in numerous CEC documents for similar sources, most notably the East Shore Power Project (06-AFC-06) and the Humboldt Bay Generating Station project (06-AFC-07).

2. With respect to the reference in Section 3.5.1.2 of the Application, please note the following:
 - a. CEQA requires consideration of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" [14 CCR, 15126.6(a)].

- b. The CEQA Guidelines further provide that “among the factors that may be used to eliminate alternatives from detailed consideration in an Environmental Impact Report (EIR) are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts”.
- c. Section 3.5 of the Application (AFC) discusses alternative technologies to the proposed Project. These alternative technologies have to be discussed in relationship to the project objectives which were delineated in Section 3.1, as follows:
- Respond to the SDG&E 2009 solicitation for conventional generation sources that will operate under a tolling agreement (i.e., utilizing natural gas provided by SDG&E) and will provide reliable and efficient peaking and load-shaping power to meet needs of SDG&E service area and facilitate integration of variable renewable sources to the grid;
 - Use a site location within SDG&E’s service territory that has infrastructure with available capacity and ability to reliably support Project electric transmission, fuel supply, and water needs with minimal impact on existing infrastructure systems or required new construction;
 - Use a site that is commercially available, including control for reasonable access and linear facility rights-of-way; and
 - Develop a site that has compatible zoning, compatible adjacent land uses, and is located away from sensitive receptors.

Objective one (first bullet item above) is most likely the most important item with respect to the alternative technology assessment. It must be noted that the RFO prepared by San Diego Gas and Electric Company, was responded to by numerous parties, with each respondent proposing a technology or mix of technologies that they believed would meet the needs of the RFO. Simple cycle turbine technology was most assuredly proposed, but rejected by SDG&E as not adequate to meet its power demands for providing flexible, and efficient peaking and load-shaping power. The reference to two of the most efficient models of simple cycle turbines, i.e., the LM6000 and the LMS100 was not intended to pre-empt the field.

There are other simple-cycle turbines with smaller power ratings that potentially could be used. Examples of such turbines would be the GE-10, a 10.2 MW unit, rated at 12,730 btu/kWh at full load, and costing approximately \$5 million per unit, or a Solar Mars 10-T15000 units rated at 9.8 MW, with a full load heat rating of 12,060 btu/kWh, and costing approximately \$5.1 million per unit. To produce the required ~103 MW at the QBPP site, would require the purchase and siting of approximately 10 of the GE-10 units, and 11 of the Solar Mars 10-T15000 units.

The Applicant notes that these examples, and other units in this size range, have heat rates (in terms of btu/kWh) that are significantly higher than the proposed engines. This results in more fuel being consumed per kWh, more air emission being produced per kWh generated, and thus the use of these smaller turbines would frustrate one or more of the fundamental project objectives, i.e., efficient fuel use per kWh of production. Secondly, it is uncertain if these small turbine units can be efficiently operated at loads comparable to the operational load flexibility of the

proposed engines, i.e., as low as 50%. Typically, turbines do not operate efficiently at these low loads, and the fuel heat rates (in terms of btu/kWh) are usually higher than the full load heat rates. For these basic reasons, the use of smaller turbines such as the GE-10 or the Solar Mars 10 units were not considered as technically feasible to meet several of the project objectives, i.e., flexibility in operations versus power production, and efficient use of fuel per kWh.

Lastly, the Applicant notes that the site is constrained with respect to useable space, and considerable site engineering was performed to configure the site for the proposed engines. The Applicant is unsure at this time if the site can be re-engineered to provide the necessary space requirements to site 10 combustion turbines and the required support systems.

3. Notwithstanding the analysis prepared by SDG&E during its consideration of the RFO responses, the Applicant conducted a summary analysis of alternative technologies as presented in Section 3.5. As noted in Section 3.5.1.12, Table 3.5-1, only a few of the alternative technologies were deemed “not commercially available”. Secondly, we agree with APCD statement that “lack of commercial availability does not eliminate equipment from BACT consideration” [based on Rule 20.1(c)(11)(B and C)], while noting the confusion that Rule creates when viewed in the context of the EPA BACT guidance. EPA BACT guidance defines “availability” and delineates the four (4) step process for bringing a technology to commercial availability, i.e., (1) concept stage, (2) research and patenting, (3) bench scale or laboratory testing, and (4) pilot scale testing. EPA BACT guidance also includes the statement that “commercial availability by itself, however, is not necessarily sufficient basis for concluding a technology to be applicable and therefore technically feasible”. As such, we concluded that while a technology that cannot be commercially acquired must be considered in the initial portions of the BACT analysis, the inherent nature of commercial unavailability is a significant obstacle to it being present at the end.

Section 3.5.1.5 states, “There are a number of efforts to enhance the thermal efficiency of combustion turbines by injecting steam or staged firing. These include the steam-injected gas turbine (STIG), the intercooled steam-recuperated gas turbine (ISRGT), the chemically-recuperated gas turbine (CRGT), and the humid air turbine (HAT) cycle. The STIG and HAT processes use the moisture from the steam or humid air to cool the gas turbine blades. However, due to the extra compression effort required in the front end of the turbine combustion chamber, these processes are less efficient than other technologies, and both use large amounts of treated, high quality water. The ISRGT, CRGT, and HAT technologies are not commercially available. Consequently, all of these technologies were eliminated from consideration.”

With respect to the advanced turbine technologies noted in Section 5.3.1.5, note the following:

- a. STIG, ISRGT, CRGT, and HAT technologies require the addition of a HRSG to the process,
- b. These technologies result in increased water demand, and wastewater discharges,

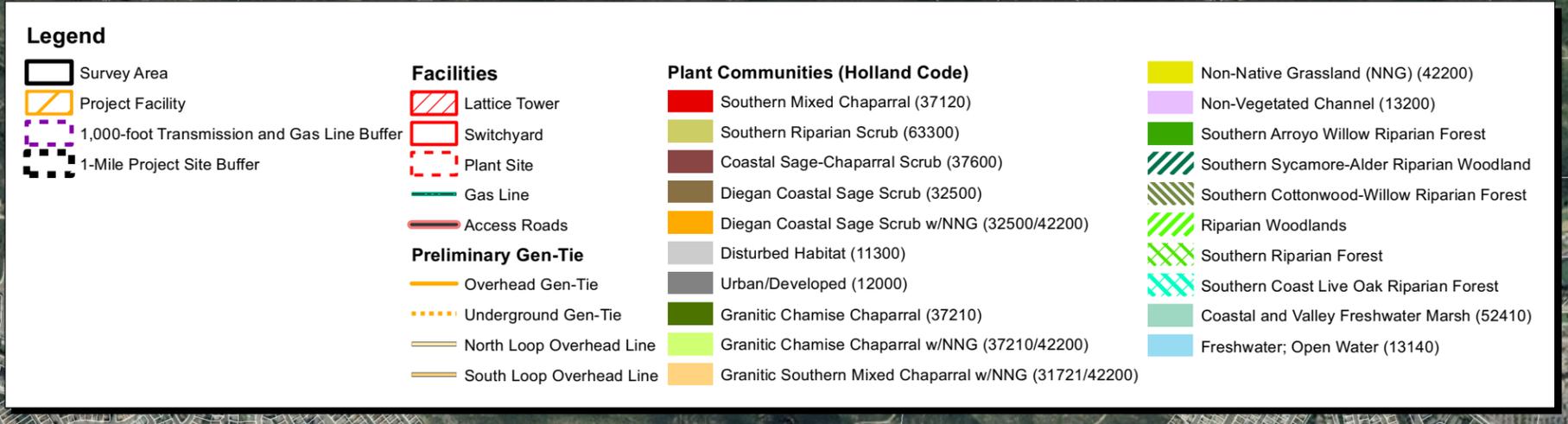
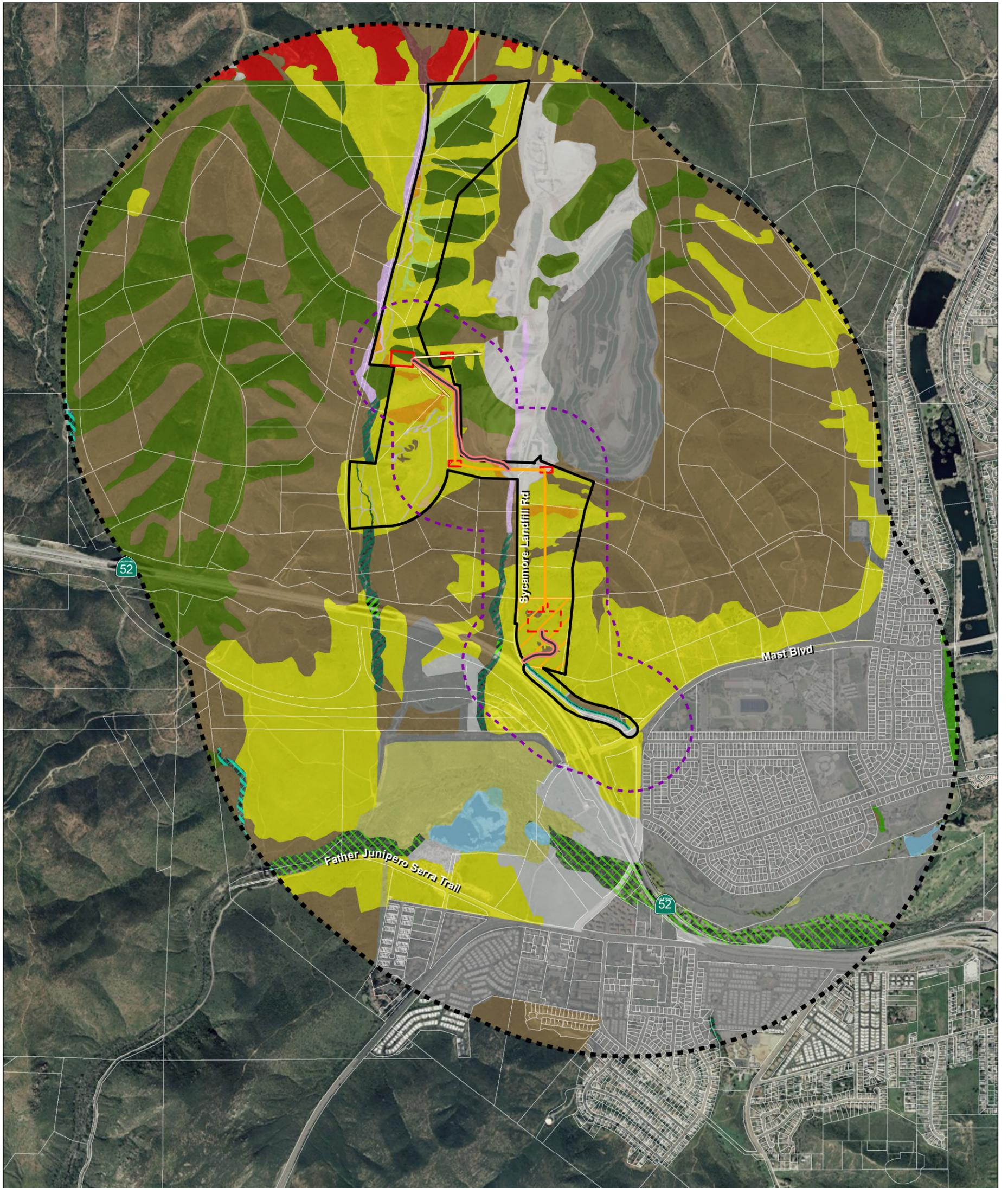
- c. Staged firing, as developed for the Brayton cycle turbine is, based on information available to the Applicant, only available via the Alstom GT-24 turbine rated at 190 MW, which does not meet the power objectives of the RFO,
- d. STIG units suffer from some of the same problems as water injected units, i.e., detrimental effects on efficiency and increased maintenance costs,
- e. Data on intercooled recuperative turbines is limited, and seems to indicate that the present applications are marine based (such as the WR-21 which was a marine based unit from conception), and that the turbines involved are rated in excess of 20-25 MW, which would not afford the desired operational flexibility as proposed by the Applicant and accepted by SDG&E.
- f. Rolls Royce is apparently researching IR technology for its RB211 and Trent turbine models, but these units are rated at 27-42 and 52-58 MW respectively, which would not allow the operational flexibility comparable to the proposed IC engine configuration.

Thus, for all the reasons noted above, use of the hybrid or alternative turbine technologies were not considered as feasible for the project in light of the RFO objectives.

- 4. Neither Quail Brush Genco, LLC, nor its parent companies or subsidiaries are associated with the Sycamore Canyon Landfill or any operating entity at the Sycamore Canyon Landfill.

EXHIBITS

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Source: ESRI Aerial Imagery. MBA Field Survey and GIS Data (2011). San Diego County GIS Department.

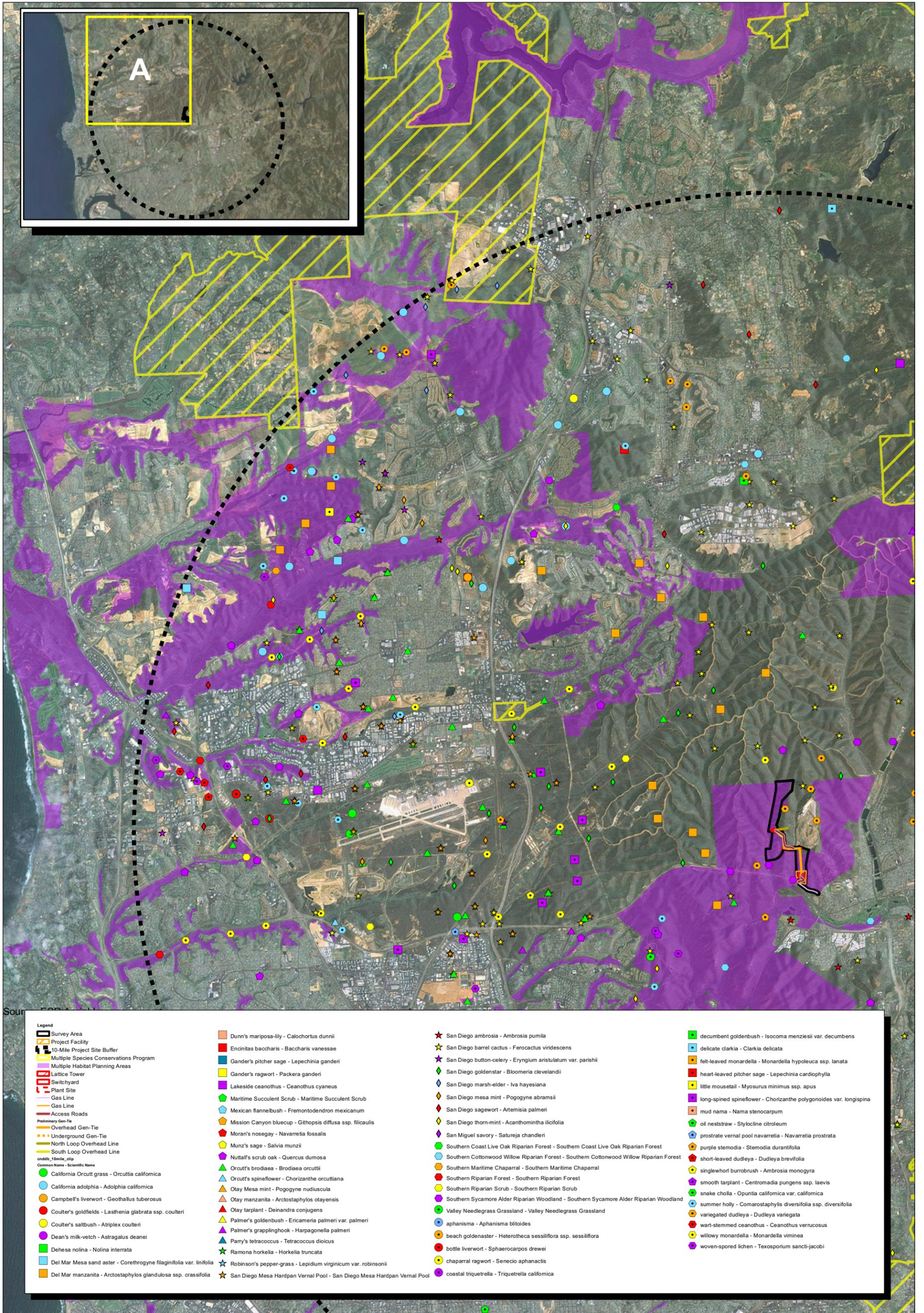


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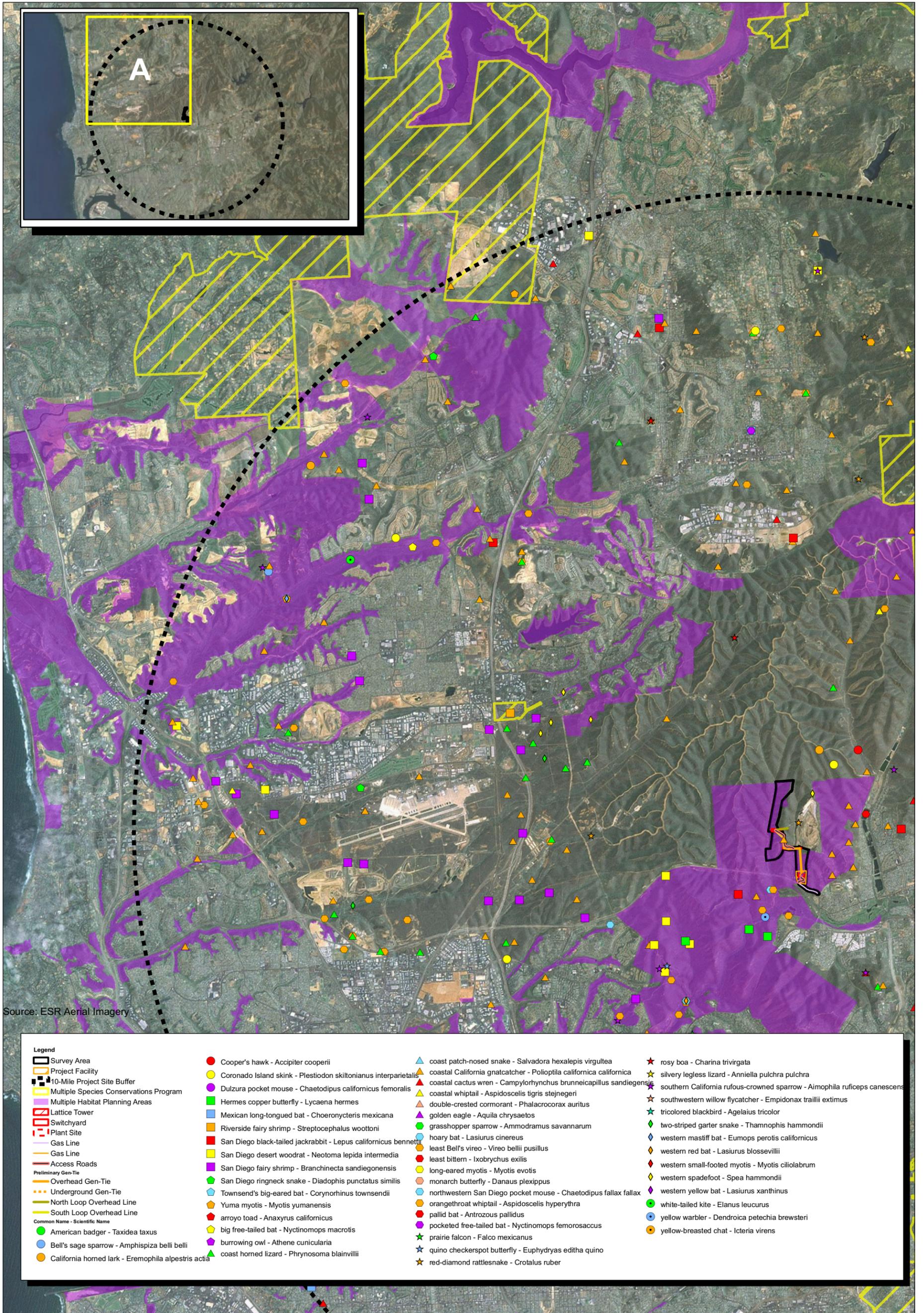


Exhibit 1 Vegetation Communities within a 1-Mile Radius of Project Site

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



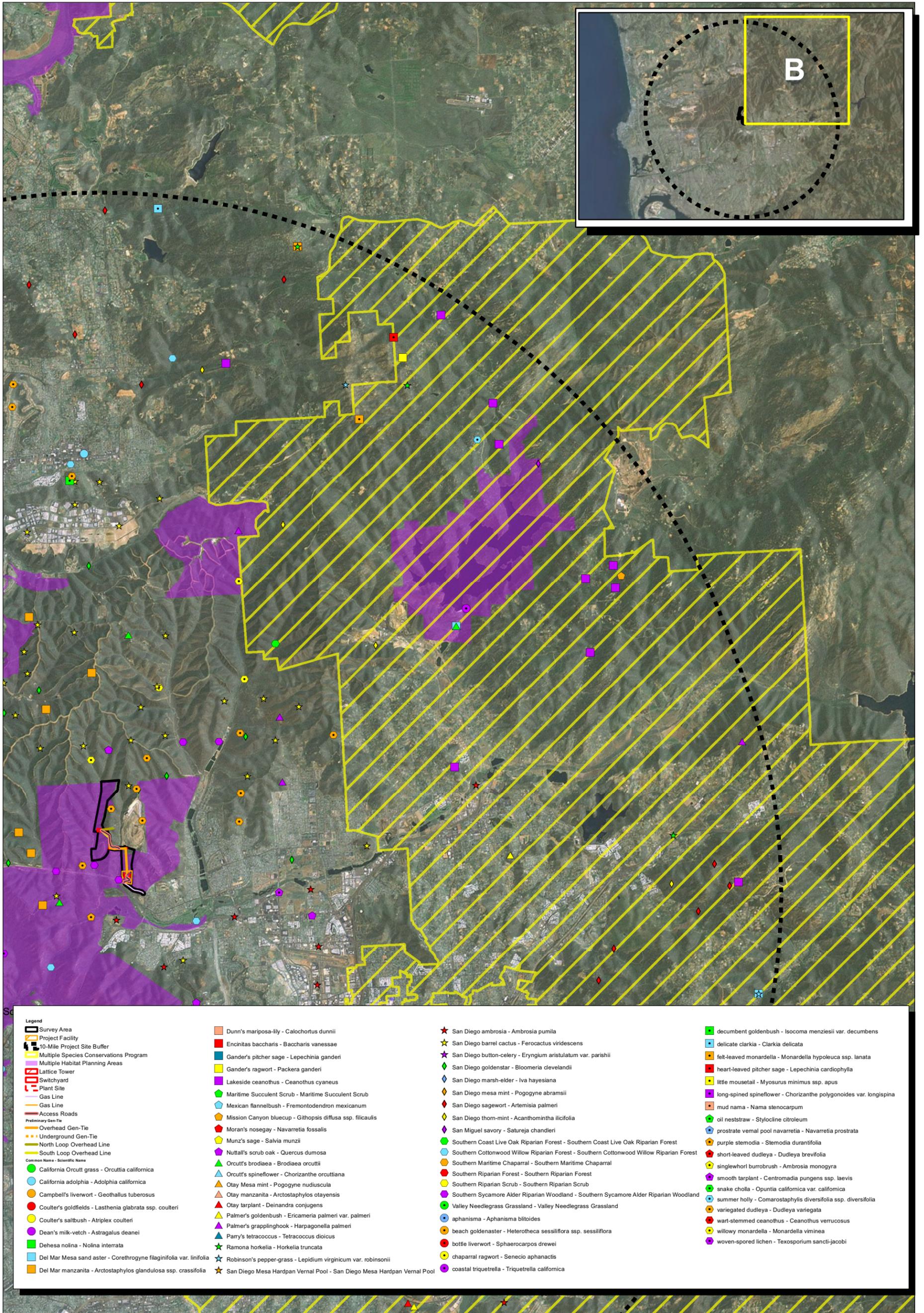
Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



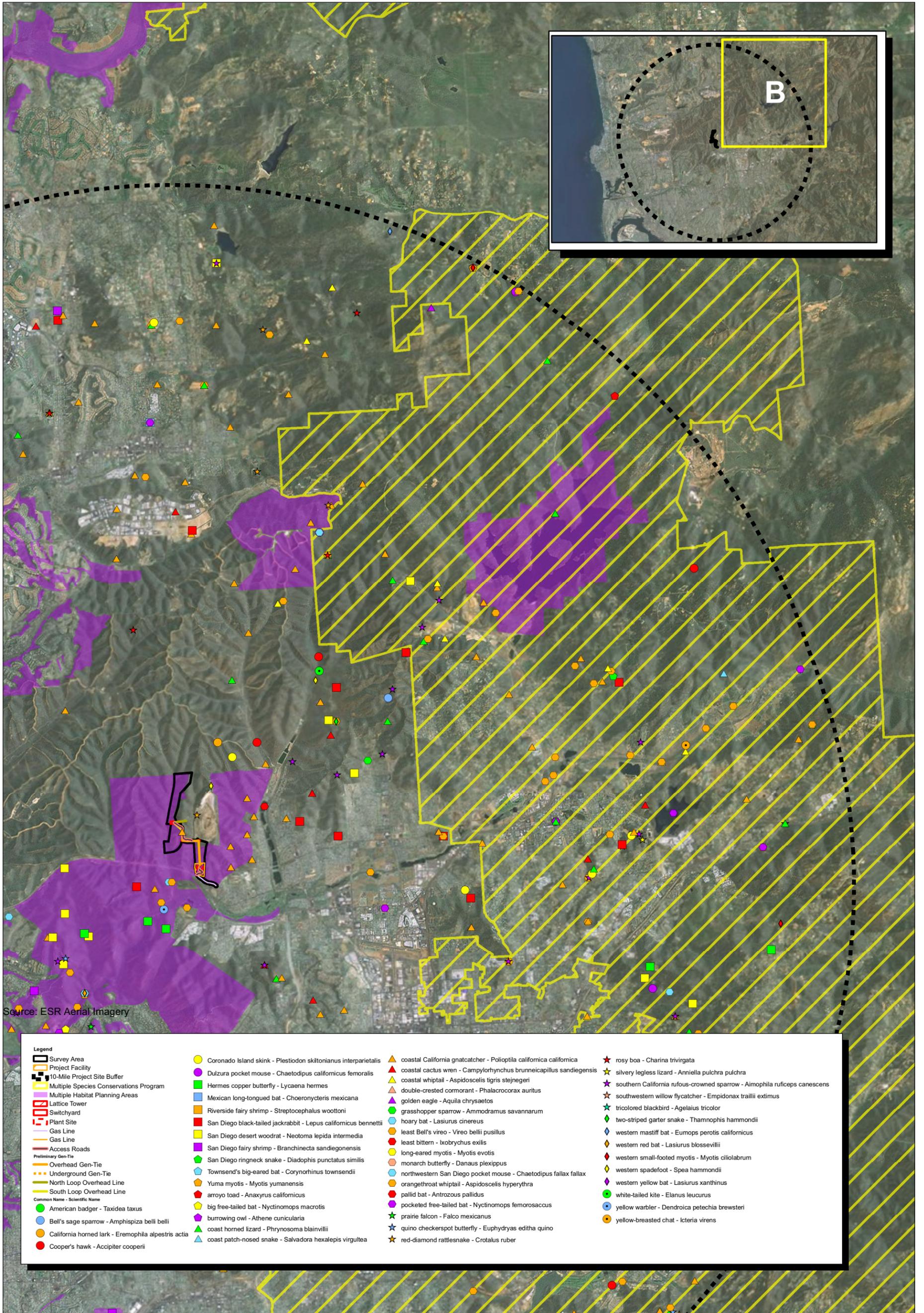
Source: ESR Aerial Imagery

Legend			
	Cooper's hawk - <i>Accipiter cooperii</i>		coast patch-nosed snake - <i>Salvadora hexalepis virgulata</i>
	Coronado Island skink - <i>Plestiodon skiltonianus interparietalis</i>		coastal California gnatcatcher - <i>Poliotilia californica californica</i>
	Dulzura pocket mouse - <i>Chaetodipus californicus femoralis</i>		coastal cactus wren - <i>Campylorhynchus brunneicapillus sandiegensis</i>
	Hermes copper butterfly - <i>Lycaena hermes</i>		coastal whiptail - <i>Aspidoscelis tigris stejnegeri</i>
	Mexican long-tongued bat - <i>Choeronycteris mexicana</i>		double-crested cormorant - <i>Phalacrocorax auritus</i>
	Riverside fairy shrimp - <i>Streptocephalus woottoni</i>		golden eagle - <i>Aquila chrysaetos</i>
	San Diego black-tailed jackrabbit - <i>Lepus californicus bennetti</i>		grasshopper sparrow - <i>Ammodramus savannarum</i>
	San Diego desert woodrat - <i>Neotoma lepida intermedia</i>		hoary bat - <i>Lasiurus cinereus</i>
	San Diego fairy shrimp - <i>Branchinecta sandiegonsis</i>		least Bell's vireo - <i>Vireo bellii pusillus</i>
	San Diego ringneck snake - <i>Diadophis punctatus similis</i>		least bittern - <i>Ixobrychus exilis</i>
	Townsend's big-eared bat - <i>Corynorhinus townsendii</i>		long-eared myotis - <i>Myotis evotis</i>
	Yuma myotis - <i>Myotis yumanensis</i>		monarch butterfly - <i>Danaus plexippus</i>
	arroyo toad - <i>Anaxyrus californicus</i>		northwestern San Diego pocket mouse - <i>Chaetodipus fallax fallax</i>
	big free-tailed bat - <i>Nyctinomops macrotis</i>		orangethroat whiptail - <i>Aspidoscelis hyperythra</i>
	burrowing owl - <i>Athene cunicularia</i>		pallid bat - <i>Antrozous pallidus</i>
	coast horned lizard - <i>Phrynosoma blainvillii</i>		pocketed free-tailed bat - <i>Nyctinomops femorosaccus</i>
	American badger - <i>Taxidea taxus</i>		prairie falcon - <i>Falco mexicanus</i>
	Bell's sage sparrow - <i>Amphispiza belli belli</i>		quino checkerspot butterfly - <i>Euphydryas editha quino</i>
	California horned lark - <i>Eremophila alpestris actia</i>		red-diamond rattlesnake - <i>Crotalus ruber</i>
			rosy boa - <i>Charina trivirgata</i>
			silvery legless lizard - <i>Anniella pulchra pulchra</i>
			southern California rufous-crowned sparrow - <i>Aimophila ruficeps canescens</i>
			southwestern willow flycatcher - <i>Empidonax traillii extimus</i>
			tricolored blackbird - <i>Agelaius tricolor</i>
			two-striped garter snake - <i>Thamnophis hammondi</i>
			western mastiff bat - <i>Eumops perotis californicus</i>
			western red bat - <i>Lasiurus blossevillii</i>
			western small-footed myotis - <i>Myotis ciliolabrum</i>
			western spadefoot - <i>Spea hammondi</i>
			western yellow bat - <i>Lasiurus xanthinus</i>
			white-tailed kite - <i>Elanus leucurus</i>
			yellow warbler - <i>Dendroica petechia brewsteri</i>
			yellow-breasted chat - <i>Icteria virens</i>

Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



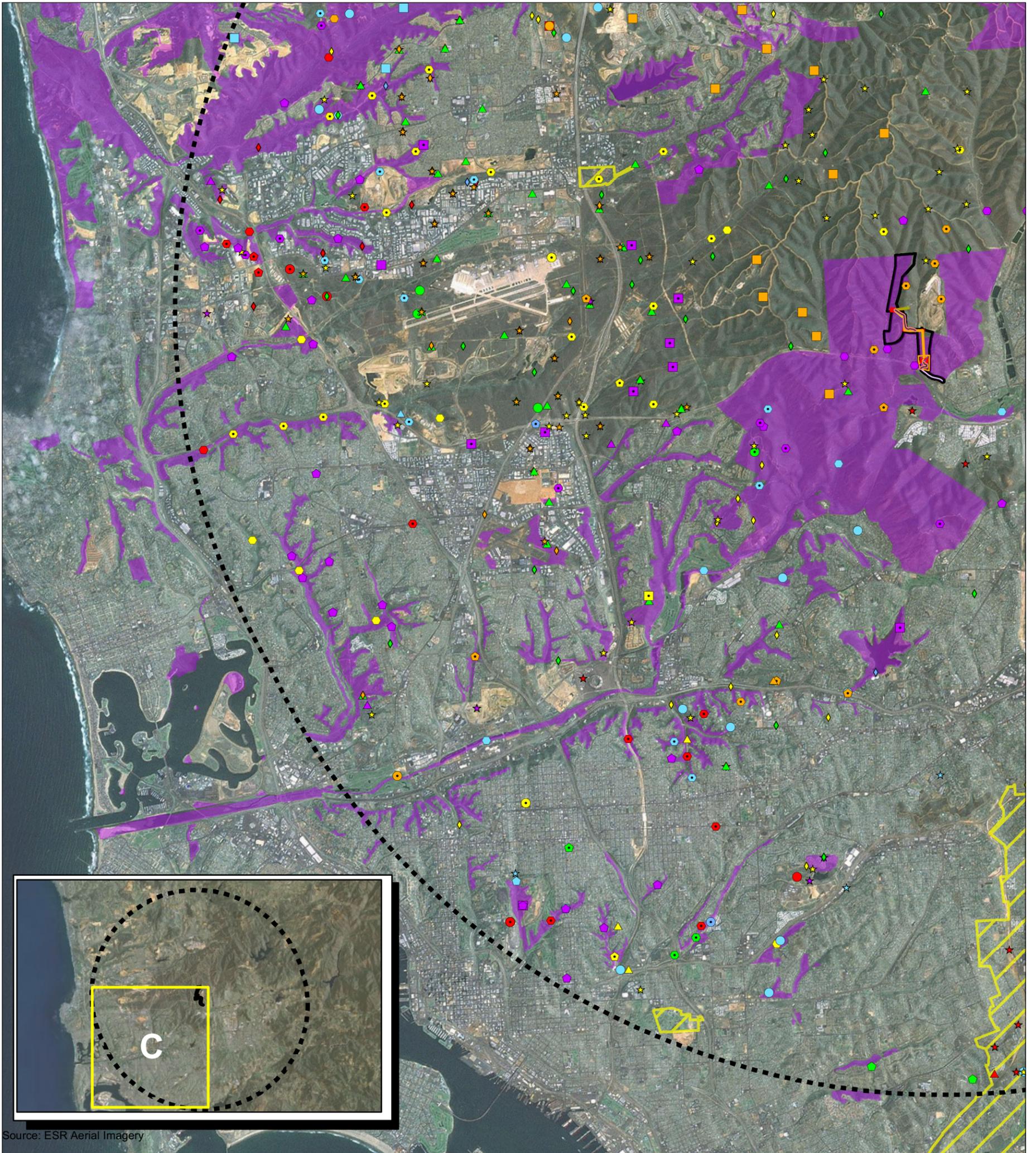
Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



Source: ESR Aerial Imagery

Legend			
	Survey Area		Project Facility
	10-Mile Project Site Buffer		Multiple Species Conservation Program
	Multiple Habitat Planning Areas		Lattice Tower
	Switchyard		Plant Site
	Gas Line		Gas Line
	Access Roads		Overhead Gen-Tie
	Preliminary Gen-Tie		Underground Gen-Tie
	North Loop Overhead Line		South Loop Overhead Line
	American badger - <i>Taxidea taxus</i>		Bell's sage sparrow - <i>Amphispiza belli belli</i>
	California horned lark - <i>Eremophila alpestris actia</i>		Cooper's hawk - <i>Accipiter cooperii</i>
	Coronado Island skink - <i>Plestiodon skiltonianus interparietalis</i>		Dulzura pocket mouse - <i>Chaetodipus californicus femoralis</i>
	Hermes copper butterfly - <i>Lycaena hermes</i>		Mexican long-tongued bat - <i>Choeronycteris mexicana</i>
	Riverside fairy shrimp - <i>Streptocephalus woottoni</i>		San Diego black-tailed jackrabbit - <i>Lepus californicus bennettii</i>
	San Diego desert woodrat - <i>Neotoma lepida intermedia</i>		San Diego fairy shrimp - <i>Branchinecta sandiegonensis</i>
	San Diego ringneck snake - <i>Diadophis punctatus similis</i>		Townsend's big-eared bat - <i>Corynorhinus townsendii</i>
	Yuma myotis - <i>Myotis yumanensis</i>		arroyo toad - <i>Anaxyrus californicus</i>
	big free-tailed bat - <i>Nyctinomops macrotis</i>		burrowing owl - <i>Athene cucularia</i>
	coast horned lizard - <i>Phrynosoma blainvillii</i>		coast patch-nosed snake - <i>Salvadora hexalepis virgulata</i>
	coastal California gnatcatcher - <i>Poliotptila californica californica</i>		coastal cactus wren - <i>Campylorhynchus brunneicapillus sandiegensis</i>
	coastal whiptail - <i>Aspidoscelis tigris stejnegeri</i>		double-crested cormorant - <i>Phalacrocorax auritus</i>
	golden eagle - <i>Aquila chrysaetos</i>		grasshopper sparrow - <i>Ammodramus savannarum</i>
	hoary bat - <i>Lasiurus cinereus</i>		least Bell's vireo - <i>Vireo bellii pusillus</i>
	least bittern - <i>Ixobrychus exilis</i>		long-eared myotis - <i>Myotis evotis</i>
	monarch butterfly - <i>Danaus plexippus</i>		northwestern San Diego pocket mouse - <i>Chaetodipus fallax fallax</i>
	orangethroat whiptail - <i>Aspidoscelis hyperythra</i>		pallid bat - <i>Antrozous pallidus</i>
	pocketed free-tailed bat - <i>Nyctinomops femorosaccus</i>		prairie falcon - <i>Falco mexicanus</i>
	quino checkerspot butterfly - <i>Euphydryas editha quino</i>		red-diamond rattlesnake - <i>Crotalus ruber</i>
	rosy boa - <i>Charina trivirgata</i>		silvery legless lizard - <i>Anniella pulchra pulchra</i>
	southern California rufous-crowned sparrow - <i>Aimophila ruficeps canescens</i>		southwestern willow flycatcher - <i>Empidonax traillii extimus</i>
	tricolored blackbird - <i>Agelaius tricolor</i>		two-striped garter snake - <i>Thamnophis hammondi</i>
	western mastiff bat - <i>Eumops perotis californicus</i>		western red bat - <i>Lasiurus blossevillii</i>
	western small-footed myotis - <i>Myotis ciliolabrum</i>		western spadefoot - <i>Spea hammondi</i>
	western yellow bat - <i>Lasiurus xanthinus</i>		white-tailed kite - <i>Elanus leucurus</i>
	yellow warbler - <i>Dendroica petechia brewsteri</i>		yellow-breasted chat - <i>Icteria virens</i>

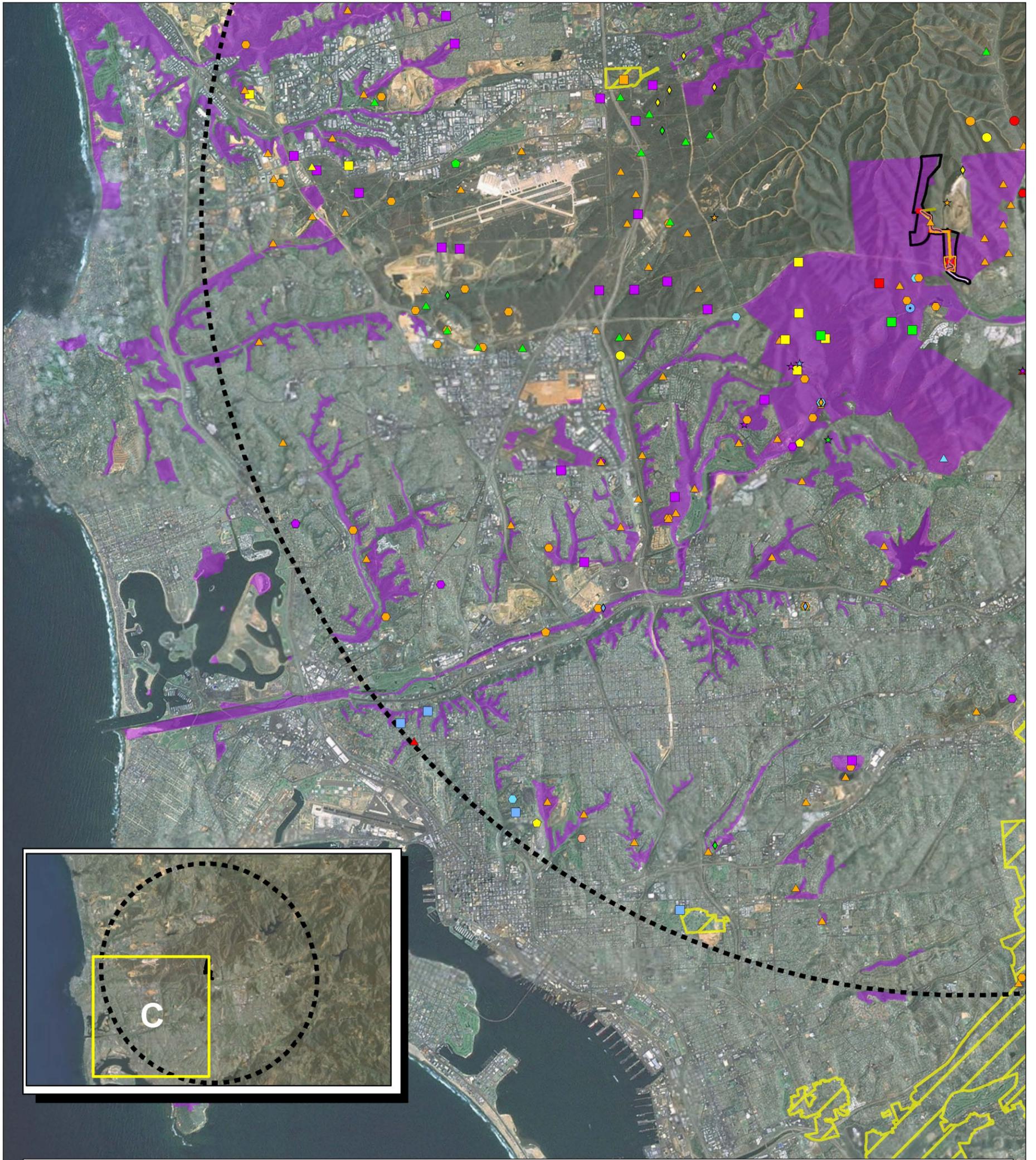
Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



Source: ESR Aerial Imagery

Legend			
	Survey Area		Dunn's mariposa-lily - <i>Calochortus dunnii</i>
	Project Facility		Encinitas baccharis - <i>Baccharis vanessae</i>
	10-Mile Project Site Buffer		Gander's pitcher sage - <i>Lepechinia ganderi</i>
	Multiple Species Conservations Program		Gander's ragwort - <i>Packeria ganderi</i>
	Multiple Habitat Planning Areas		Lakeside ceanothus - <i>Ceanothus cyaneus</i>
	Lattice Tower		Maritime Succulent Scrub - Maritime Succulent Scrub
	Switchyard		Mexican flannelbush - <i>Fremontodendron mexicanum</i>
	Plant Site		Mission Canyon bluecup - <i>Githopsis diffusa</i> ssp. <i>filicaulis</i>
	Gas Line		Moran's nosegay - <i>Navarretia fossalis</i>
	Gas Line		Munz's sage - <i>Salvia munzii</i>
	Access Roads		Nuttall's scrub oak - <i>Quercus dumosa</i>
	Preliminary Gen-Tie		Orcutt's brodiaea - <i>Brodiaea orcuttii</i>
	Overhead Gen-Tie		Orcutt's spinneflower - <i>Chorizanthe orcuttiana</i>
	Underground Gen-Tie		Oatay Mesa mint - <i>Pogogyne nudiscula</i>
	North Loop Overhead Line		Oatay manzanita - <i>Arctostaphylos otayensis</i>
	South Loop Overhead Line		Oatay tarplant - <i>Deinandra conjugens</i>
	Common Name - Scientific Name		Palmer's goldenbush - <i>Ericameria palmeri</i> var. <i>palmeri</i>
	California Orcutt grass - <i>Orcuttia californica</i>		Palmer's grapplinghook - <i>Harpagonella palmeri</i>
	California adolphia - <i>Adolphia californica</i>		Parry's tetracoccus - <i>Tetracoccus dioicus</i>
	Campbell's liverwort - <i>Geothallus tuberosus</i>		Ramona horkelia - <i>Horkelia truncata</i>
	Coulter's goldfields - <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>		Robinson's pepper-grass - <i>Lepidium virginicum</i> var. <i>robinsonii</i>
	Coulter's saltbush - <i>Atriplex coulteri</i>		San Diego ambrosia - <i>Ambrosia pumila</i>
	Dean's milk-velch - <i>Astragalus deanei</i>		San Diego barrel cactus - <i>Ferocactus viridescens</i>
	Dehesa nolina - <i>Nolina interrata</i>		San Diego button-celery - <i>Eryngium aristulatum</i> var. <i>parishii</i>
	Del Mar Mesa sand aster - <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>		San Diego goldenstar - <i>Bloomeria clevelandii</i>
	Del Mar manzanita - <i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>		San Diego marsh-elder - <i>Iva hayesiana</i>
			San Diego mesa mint - <i>Pogogyne abramsii</i>
			San Diego sagewort - <i>Artemisia palmeri</i>
			San Diego thorn-mint - <i>Acanthomintha illicifolia</i>
			San Miguel savory - <i>Satureja chandleri</i>
			Southern Coast Live Oak Riparian Forest - Southern Coast Live Oak Riparian Forest
			Southern Cottonwood Willow Riparian Forest - Southern Cottonwood Willow Riparian Forest
			Southern Maritime Chaparral - Southern Maritime Chaparral
			Southern Riparian Forest - Southern Riparian Forest
			Southern Riparian Scrub - Southern Riparian Scrub
			Southern Sycamore Alder Riparian Woodland - Southern Sycamore Alder Riparian Woodland
			Valley Needlegrass Grassland - Valley Needlegrass Grassland
			aphanisma - <i>Aphanisma bitoides</i>
			beach goldenaster - <i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>
			bottle liverwort - <i>Sphaerocarpos drewei</i>
			chaparral ragwort - <i>Senecio aphanactis</i>
			coastal triquetrella - <i>Triquetrella californica</i>
			decumbent goldenbush - <i>Isocoma menziesii</i> var. <i>decumbens</i>
			delicate clarkia - <i>Clarkia delicata</i>
			felt-leaved monardella - <i>Monardella hypoleuca</i> ssp. <i>lanata</i>
			heart-leaved pitcher sage - <i>Lepechinia cardiophylla</i>
			little mousetail - <i>Myosurus minimus</i> ssp. <i>apus</i>
			long-spined spineflower - <i>Chorizanthe polygonoides</i> var. <i>longispina</i>
			mud nama - <i>Nama stenocarpum</i>
			oil neststraw - <i>Stylotriche citreolum</i>
			prostrate vernal pool navarretia - <i>Navarretia prostrata</i>
			purple stemodia - <i>Stemodia durantifolia</i>
			short-leaved dudleya - <i>Dudleya brevifolia</i>
			singlehorfi burrobrush - <i>Ambrosia monogyra</i>
			smooth tarplant - <i>Centromadia pungens</i> ssp. <i>laevis</i>
			snake cholla - <i>Opuntia californica</i> var. <i>californica</i>
			summer holly - <i>Comarostaphylos diversifolia</i> ssp. <i>diversifolia</i>
			variegated dudleya - <i>Dudleya variegata</i>
			wart-stemmed ceanothus - <i>Ceanothus verrucosus</i>
			willow monardella - <i>Monardella viminea</i>
			woven-spored lichen - <i>Toxosporium sancti-jacobi</i>

Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



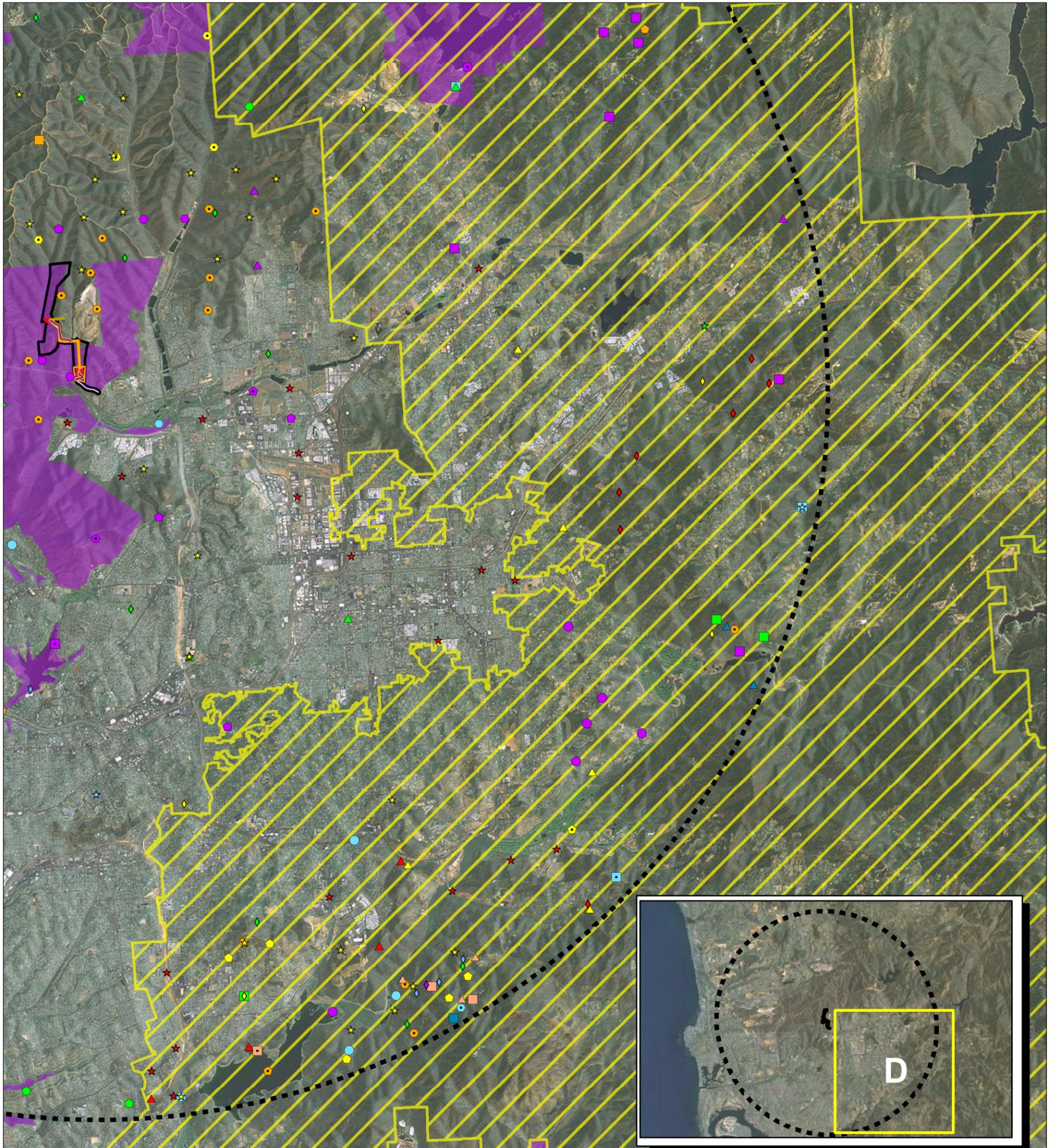
Legend			
Survey Area	Cooper's hawk - <i>Accipiter cooperii</i>	coast patch-nosed snake - <i>Salvadora hexalepis virgulata</i>	rosy boa - <i>Charina trivirgata</i>
Project Facility	Coronado Island skink - <i>Plestiodon skiltonianus interparietalis</i>	coastal California gnatcatcher - <i>Poliotilia californica californica</i>	silvery legless lizard - <i>Anniella pulchra pulchra</i>
10-Mile Project Site Buffer	Dulzura pocket mouse - <i>Chaetodipus californicus femoralis</i>	coastal cactus wren - <i>Campylorhynchus brunneicapillus sandiegensis</i>	southern California rufous-crowned sparrow - <i>Aimophila ruficeps canescens</i>
Multiple Species Conservations Program	Hermes copper butterfly - <i>Lycaena hermes</i>	coastal whiptail - <i>Aspidoscelis tigris stejnegeri</i>	southwestern willow flycatcher - <i>Empidonax traillii extimus</i>
Multiple Habitat Planning Areas	Mexican long-tongued bat - <i>Choeronycteris mexicana</i>	double-crested cormorant - <i>Phalacrocorax auritus</i>	tricolored blackbird - <i>Agelaius tricolor</i>
Lattice Tower	Riverside fairy shrimp - <i>Streptocephalus woottoni</i>	golden eagle - <i>Aquila chrysaetos</i>	two-striped garter snake - <i>Thamnophis hammondi</i>
Switchyard	San Diego black-tailed jackrabbit - <i>Lepus californicus bennetti</i>	grasshopper sparrow - <i>Ammodramus savannarum</i>	western mastiff bat - <i>Eumops perotis californicus</i>
Plant Site	San Diego desert woodrat - <i>Neotoma lepida intermedia</i>	hoary bat - <i>Lasiurus cinereus</i>	western red bat - <i>Lasiurus blossevillii</i>
Gas Line	San Diego fairy shrimp - <i>Branchinecta sandiegonensis</i>	least Bell's vireo - <i>Vireo bellii pusillus</i>	western small-footed myotis - <i>Myotis ciliolabrum</i>
Gas Line	San Diego ringneck snake - <i>Diadophis punctatus similis</i>	least bittern - <i>Ixobrychus exilis</i>	western spadefoot - <i>Spea hammondi</i>
Access Roads	Townsend's big-eared bat - <i>Corynorhinus townsendii</i>	long-eared myotis - <i>Myotis evotis</i>	western yellow bat - <i>Lasiurus xanthinus</i>
Preliminary Gen-Tie	Yuma myotis - <i>Myotis yumanensis</i>	monarch butterfly - <i>Danaus plexippus</i>	white-tailed kite - <i>Elanus leucurus</i>
Overhead Gen-Tie	arroyo toad - <i>Anaxyrus californicus</i>	northwestern San Diego pocket mouse - <i>Chaetodipus fallax fallax</i>	yellow warbler - <i>Dendroica petechia brewsteri</i>
Underground Gen-Tie	big free-tailed bat - <i>Nyctinomops macrootis</i>	orangethroat whiptail - <i>Aspidoscelis hyperythra</i>	yellow-breasted chat - <i>Icteria virens</i>
North Loop Overhead Line	burrowing owl - <i>Athene cunicularia</i>	pallid bat - <i>Antrozous pallidus</i>	
South Loop Overhead Line	coast horned lizard - <i>Phrynosoma blainvillii</i>	pocketed free-tailed bat - <i>Nyctinomops femorosaccus</i>	
Common Name - Scientific Name		prairie falcon - <i>Falco mexicanus</i>	
American badger - <i>Taxidea taxus</i>		quino checkerspot butterfly - <i>Euphydryas editha quino</i>	
Bell's sage sparrow - <i>Amphispiza belli belli</i>		red-diamond rattlesnake - <i>Crotalus ruber</i>	
California horned lark - <i>Eremophila alpestris acta</i>			

Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



Exhibit 2c-2

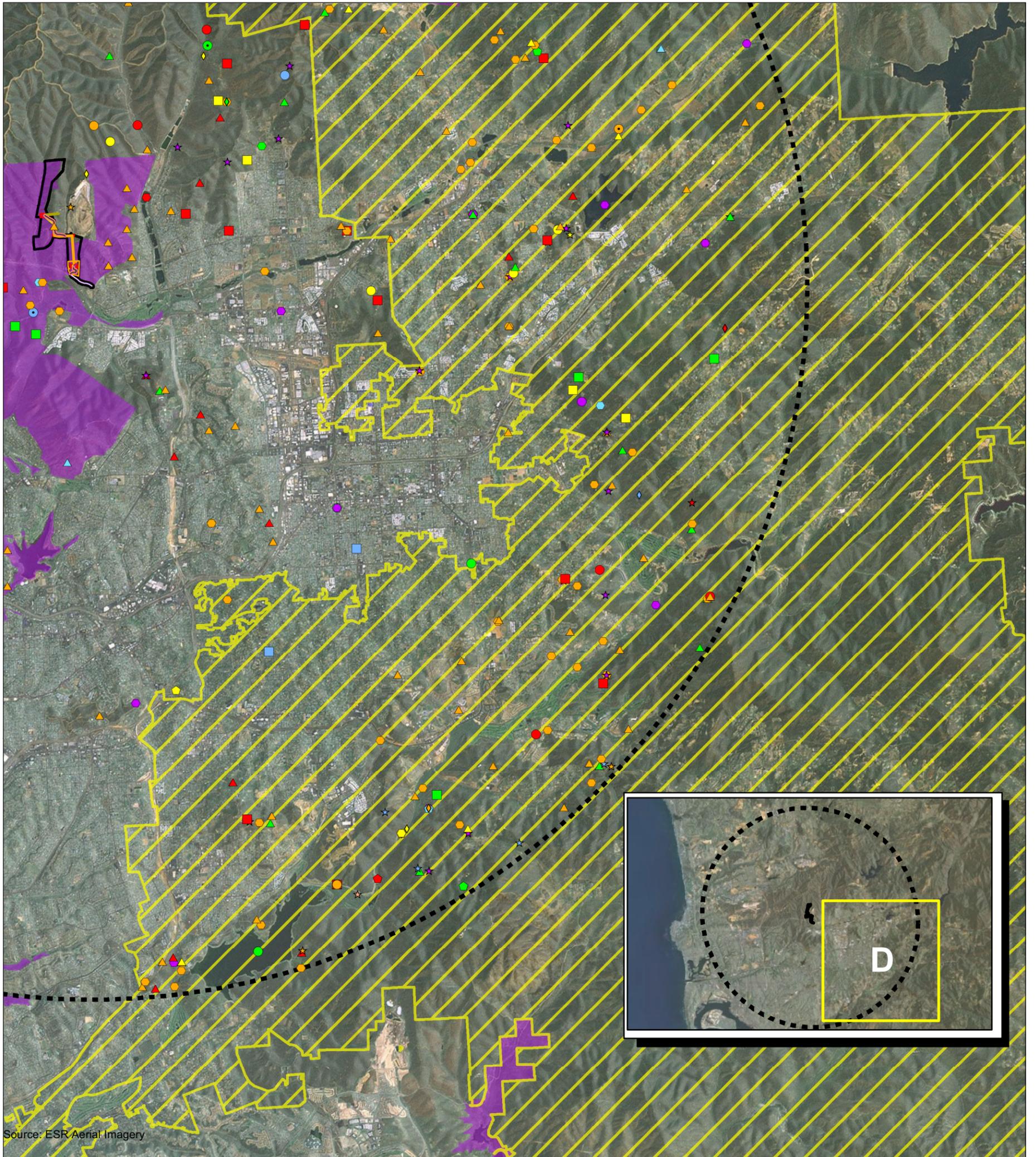
Sensitive Biological Resources Map with CNDDDB Wildlife 10-Miles around Project Site, Quadrant C



Source: ESR Aerial Imagery

Legend			
	Survey Area		Encinitas baccharis - Baccharis vanessae
	Project Facility		Gander's pitcher sage - Lepechinia ganderi
	10-Mile Project Site Buffer		Gander's ragwort - Packera ganderi
	Multiple Species Conservations Program		Lakeside ceanothus - Ceanothus cyaneus
	Multiple Habitat Planning Areas		Maritime Succulent Scrub - Maritime Succulent Scrub
	Lattice Tower		Mexican flannelbush - Fremontodendron mexicanum
	Switchyard		Mission Canyon bluecup - Githopsis diffusa ssp. filicaulis
	Plant Site		Moran's nosegay - Navarretia fossalis
	Gas Line		Munz's sage - Salvia munzii
	Gas Line		Nuttall's scrub oak - Quercus dumosa
	Access Roads		Orcutt's brodiaea - Brodiaea orcuttii
	Overhead Gen-Tie		Orcutt's spinyflower - Chorizanthe orcuttiana
	Underground Gen-Tie		Otay Mesa mint - Pogogyne nudiscula
	North Loop Overhead Line		Otay manzanita - Arctostaphylos otayensis
	South Loop Overhead Line		Otay tarplant - Deinandra conjugens
	Common Name - Scientific Name		Palmer's goldenbush - Ericameria palmeri var. palmeri
	California Orcutt grass - Orcuttia californica		Palmer's grapplinghook - Harpagonella palmeri
	California adolphia - Adolphia californica		Parry's tetraococcus - Tetraococcus dioicus
	Campbell's liverwort - Geothallus tuberosus		Ramona horkelia - Horkelia truncata
	Coulter's goldfields - Lasthenia glabrata ssp. coulteri		Robinson's pepper-grass - Lepidium virginicum var. robinsonii
	Coulter's saltbush - Atriplex coulteri		San Diego ambrosia - Ambrosia pumila
	Dean's milk-vetch - Astragalus deanei		San Diego barrel cactus - Ferocactus viridescens
	Dehesa nolina - Nolina interrata		San Diego button-celery - Eryngium aristulatum var. parishii
	Del Mar Mesa sand aster - Corethrogyne filaginifolia var. linifolia		San Diego goldenstar - Bloomeria clevelandii
	Del Mar manzanita - Arctostaphylos glandulosa ssp. crassifolia		San Diego marsh-elder - Iva hayesiana
	Dunn's mariposa-lily - Calochortus dunnii		San Diego mesa mint - Pogogyne abramsii
			San Diego sagewort - Artemisia palmeri
			San Diego thorn-mint - Acanthomintha ilicifolia
			San Miguel savory - Satureja chandleri
			Southern Coast Live Oak Riparian Forest - Southern Coast Live Oak Riparian Forest
			Southern Cottonwood Willow Riparian Forest - Southern Cottonwood Willow Riparian Forest
			Southern Maritime Chaparral - Southern Maritime Chaparral
			Southern Riparian Forest - Southern Riparian Forest
			Southern Riparian Scrub - Southern Riparian Scrub
			Southern Sycamore Alder Riparian Woodland - Southern Sycamore Alder Riparian Woodland
			Valley Needlegrass Grassland - Valley Needlegrass Grassland
			aphanisma - Aphanisma bitoides
			beach goldenaster - Heterotheca sessiliflora ssp. sessiliflora
			bottle liverwort - Sphaerocarpos drewei
			chaparral ragwort - Senecio aphanactis
			coastal triquetrella - Triquetrella californica
			decumbent goldenbush - Isocoma menziesii var. decumbens
			delicate clarkia - Clarkia delicata
			felt-leaved monardella - Monardella hypoleuca ssp. lanata
			heart-leaved pitcher sage - Lepechinia cardiophylla
			little mouse-tail - Myosurus minimus ssp. apus
			long-spined spineflower - Chorizanthe polygonoides var. longispina
			mud nama - Nama stenocarpum
			oil neststraw - Stylocline citroleum
			prostrate vernal pool navarretia - Navarretia prostrata
			purple stemodia - Stemodia durantifolia
			short-leaved dudleya - Dudleya brevifolia
			singlewhorl burrobush - Ambrosia monogyra
			smooth tarplant - Centromadia pungens ssp. laevis
			snake cholla - Opuntia californica var. californica
			summer holly - Comarostaphylos diversifolia ssp. diversifolia
			variegated dudleya - Dudleya variegata
			wart-stemmed ceanothus - Ceanothus verrucosus
			willow monardella - Monardella viminea
			woven-spored lichen - Texusporium sancti-jacobi

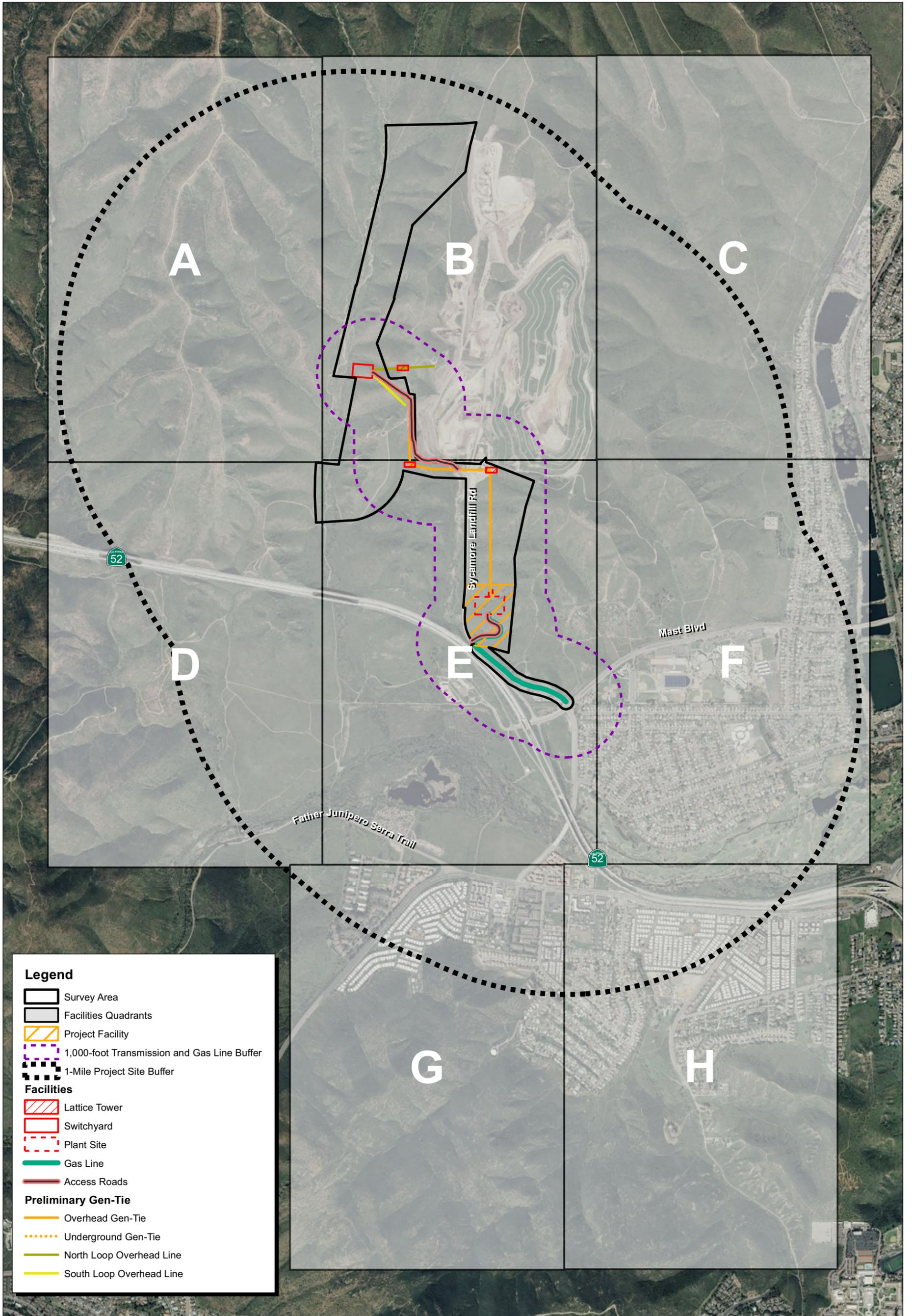
Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



Source: ESR Aerial Imagery

Legend			
	Survey Area		Cooper's hawk - <i>Accipiter cooperii</i>
	10-Mile Project Site Buffer		Coronado Island skink - <i>Plestiodon skiltonianus interparietalis</i>
	Multiple Species Conservations Program		Dulzura pocket mouse - <i>Chaetodipus californicus femoralis</i>
	Multiple Habitat Planning Areas		Hermes copper butterfly - <i>Lycaena hermes</i>
	Lattice Tower		Mexican long-tongued bat - <i>Choeronycteris mexicana</i>
	Switchyard		Riverside fairy shrimp - <i>Streptocephalus woottoni</i>
	Plant Site		San Diego black-tailed jackrabbit - <i>Lepus californicus bennetti</i>
	Gas Line		San Diego desert woodrat - <i>Neotoma lepida intermedia</i>
	Gas Line		San Diego fairy shrimp - <i>Branchinecta sandiegonensis</i>
	Access Roads		San Diego ringneck snake - <i>Diadophis punctatus similis</i>
	Preliminary Gen-Tie		Townsend's big-eared bat - <i>Corynorhinus townsendii</i>
	Overhead Gen-Tie		Yuma myotis - <i>Myotis yumanensis</i>
	Underground Gen-Tie		arroyo toad - <i>Anaxyrus californicus</i>
	North Loop Overhead Line		big free-tailed bat - <i>Nyctinomops macrotis</i>
	South Loop Overhead Line		burrowing owl - <i>Athene cunicularia</i>
	American badger - <i>Taxidea taxus</i>		coast horned lizard - <i>Phrynosoma blainvillii</i>
	Bell's sage sparrow - <i>Amphispiza belli belli</i>		coast patch-nosed snake - <i>Salvadora hexalepis virgulata</i>
	California horned lark - <i>Eremophila alpestris actia</i>		coastal California gnatcatcher - <i>Poliotilia californica californica</i>
			coastal cactus wren - <i>Campylorhynchus brunneicapillus sandiegensis</i>
			coastal whiptail - <i>Aspidoscelis tigris stejnegeri</i>
			double-crested cormorant - <i>Phalacrocorax auritus</i>
			golden eagle - <i>Aquila chrysaetos</i>
			grasshopper sparrow - <i>Ammodramus savannarum</i>
			hoary bat - <i>Lasiurus cinereus</i>
			least Bell's vireo - <i>Vireo bellii pusillus</i>
			least bittern - <i>Ixobrychus exilis</i>
			long-eared myotis - <i>Myotis evotis</i>
			monarch butterfly - <i>Danaus plexippus</i>
			northwestern San Diego pocket mouse - <i>Chaetodipus fallax fallax</i>
			orangethroat whiptail - <i>Aspidoscelis hyperythra</i>
			pallid bat - <i>Antrozous pallidus</i>
			pocketed free-tailed bat - <i>Nyctinomops femorosaccus</i>
			prairie falcon - <i>Falco mexicanus</i>
			quino checkerspot butterfly - <i>Euphydryas editha quino</i>
			red-diamond rattlesnake - <i>Crotalus ruber</i>
			rosy boa - <i>Charina trivirgata</i>
			silvery legless lizard - <i>Anniella pulchra pulchra</i>
			southern California rufous-crowned sparrow - <i>Aimophila ruficeps canescens</i>
			southwestern willow flycatcher - <i>Empidonax traillii extimus</i>
			tricolored blackbird - <i>Agelaius tricolor</i>
			two-striped garter snake - <i>Thamnophis hammondi</i>
			western mastiff bat - <i>Eumops perotis californicus</i>
			western red bat - <i>Lasiurus blossevillii</i>
			western small-footed myotis - <i>Myotis ciliolabrum</i>
			western spadefoot - <i>Spea hammondi</i>
			western yellow bat - <i>Lasiurus xanthinus</i>
			white-tailed kite - <i>Elanus leucurus</i>
			yellow warbler - <i>Dendroica petechia brewsteri</i>
			yellow-breasted chat - <i>Icteria virens</i>

Source: ESRI Aerial Imagery, CNDDDB Data, September 2011.



Source: ESRI Aerial Imagery. Tetra Tech EC, Inc., 2011.



17510009 • 09/2011 | 3_facilities_1mile_buffer_index.mxd



Exhibit 3 1-Mile Buffer Facilities Index Map

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



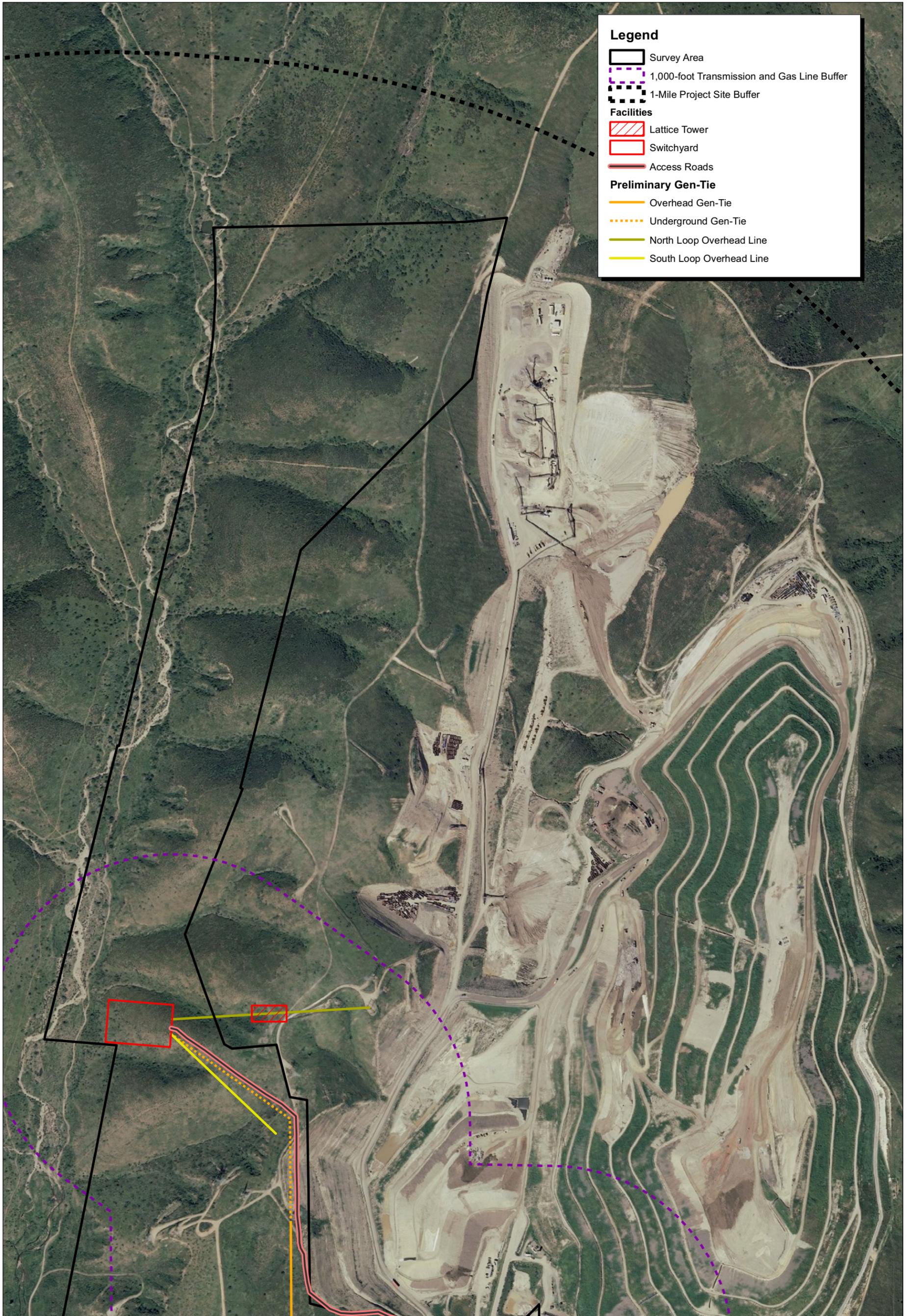
Legend

-  1,000-foot Transmission and Gas Line Buffer
-  1-Mile Project Site Buffer

Source: ESRI Aerial Imagery. No project related data in this extent.



Exhibit 3
1-Mile Buffer Facilities Map
Quadrant A



Legend

- Survey Area
- 1,000-foot Transmission and Gas Line Buffer
- 1-Mile Project Site Buffer

Facilities

- Lattice Tower
- Switchyard
- Access Roads

Preliminary Gen-Tie

- Overhead Gen-Tie
- Underground Gen-Tie
- North Loop Overhead Line
- South Loop Overhead Line

Source: ESRI Aerial Imagery, Tetra Tech EC, Inc., 2011.



Exhibit 3
1-Mile Buffer Facilities Map
Quadrant B



Source: ESRI Aerial Imagery, No project related data in this extent.

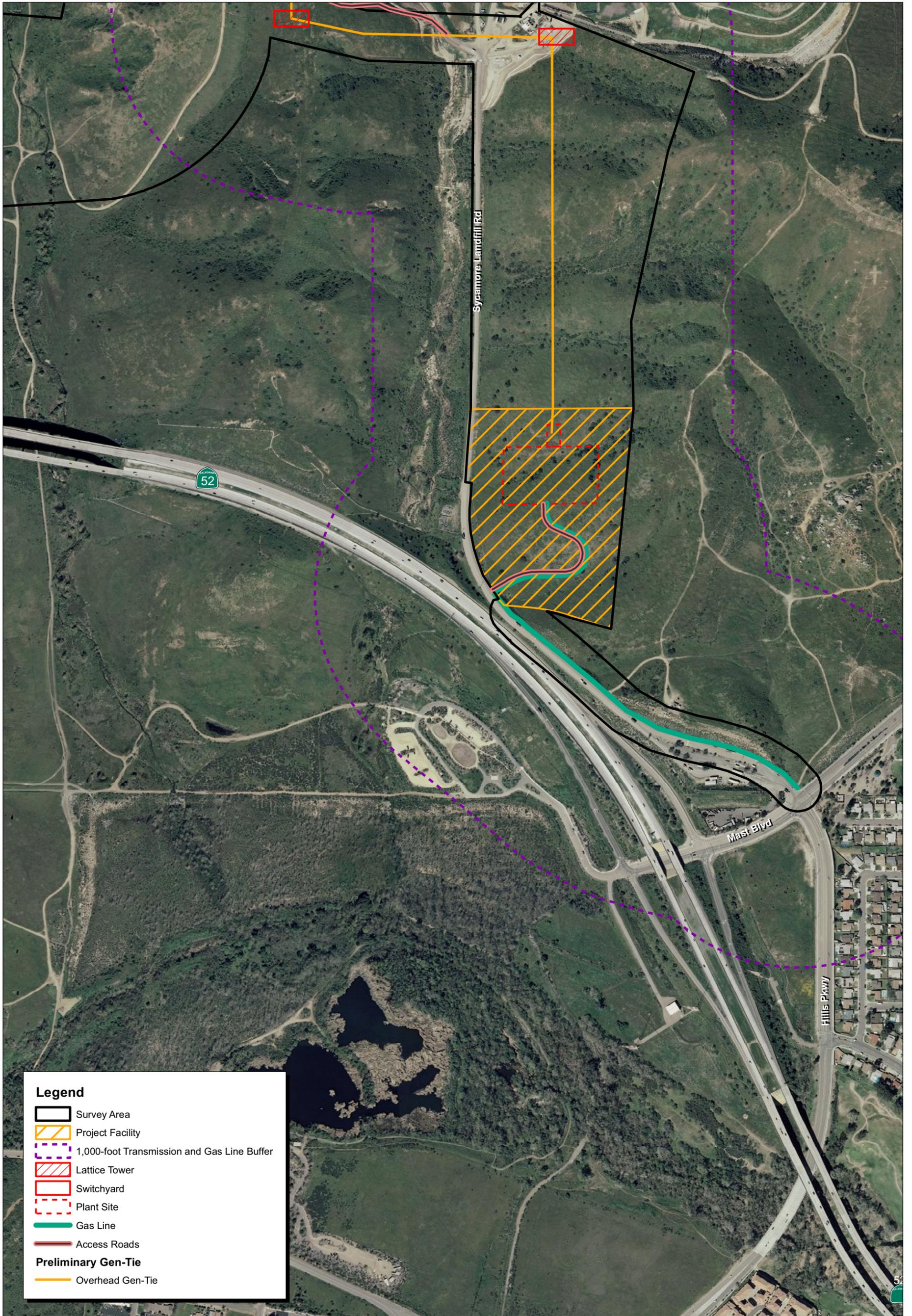


Exhibit 3
1-Mile Buffer Facilities Map
Quadrant C



Source: ESRI Aerial Imagery, No project related data in this extent.





Legend

- Survey Area
- Project Facility
- 1,000-foot Transmission and Gas Line Buffer
- Lattice Tower
- Switchyard
- Plant Site
- Gas Line
- Access Roads
- Preliminary Gen-Tie**
- Overhead Gen-Tie

Source: ESRI Aerial Imagery, Tetra Tech EC, Inc., 2011.

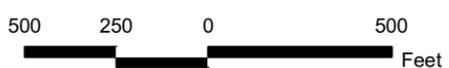


Exhibit 3
1-Mile Buffer Facilities Map
Quadrant E



Source: ESRI Aerial Imagery, No project related data in this extent.



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Exhibit 3
1-Mile Buffer Facilities Map
Quadrant F

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



Source: ESRI Aerial Imagery, No project related data in this extent.



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Exhibit 3
1-Mile Buffer Facilities Map
Quadrant G

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
 DATA ADEQUACY RESPONSE

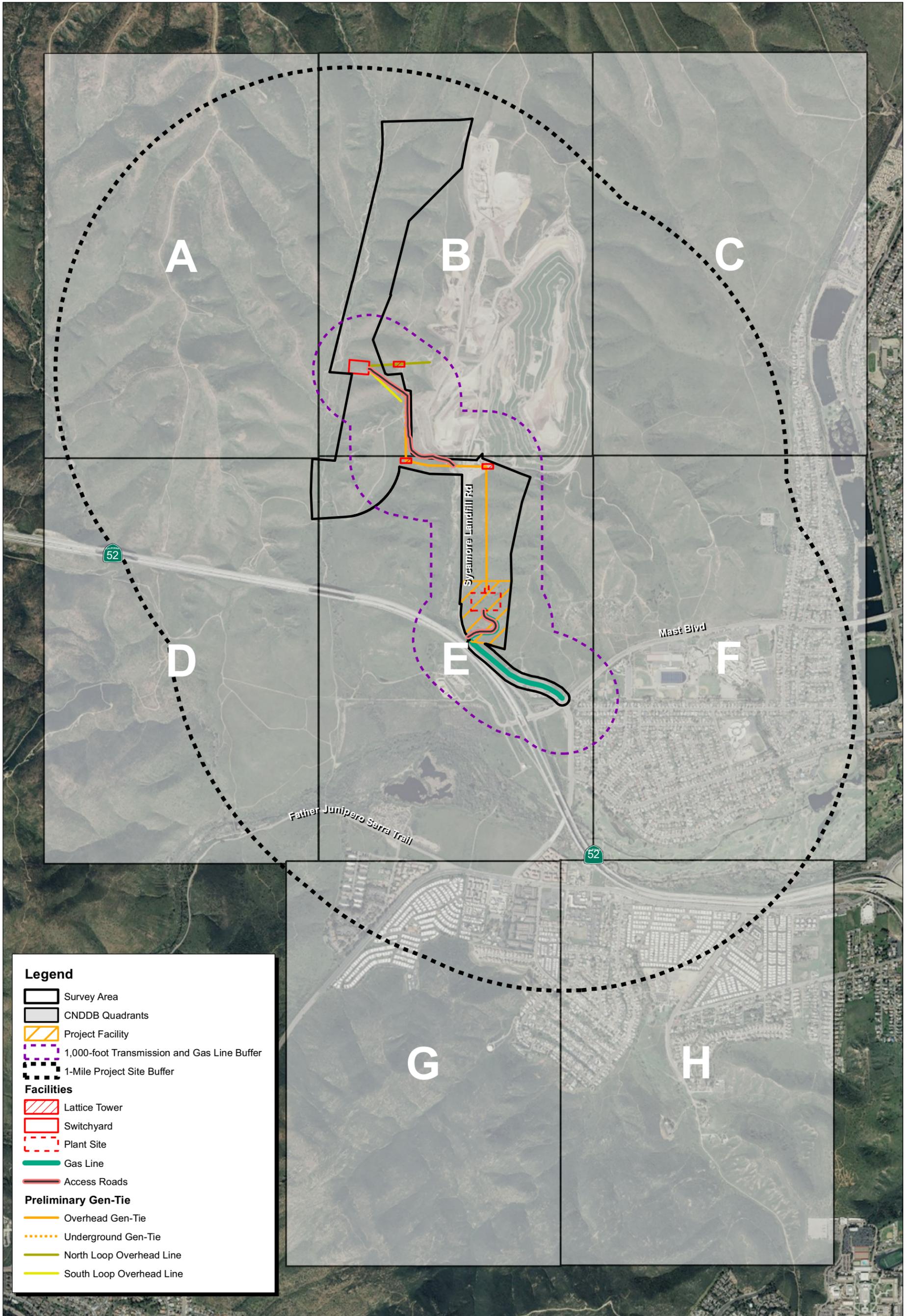


Legend
 [Dashed Line] 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery, No project related data in this extent.



Exhibit 3
1-Mile Buffer Facilities Map
Quadrant H



Source: ESRI Aerial Imagery. Tetra Tech EC, Inc., 2011.



17510009 • 09/2011 | 4_cnddb_1mile_buffer.mxd

Exhibit 4 CNDDB 1-Mile Project Site Buffer Index Map

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



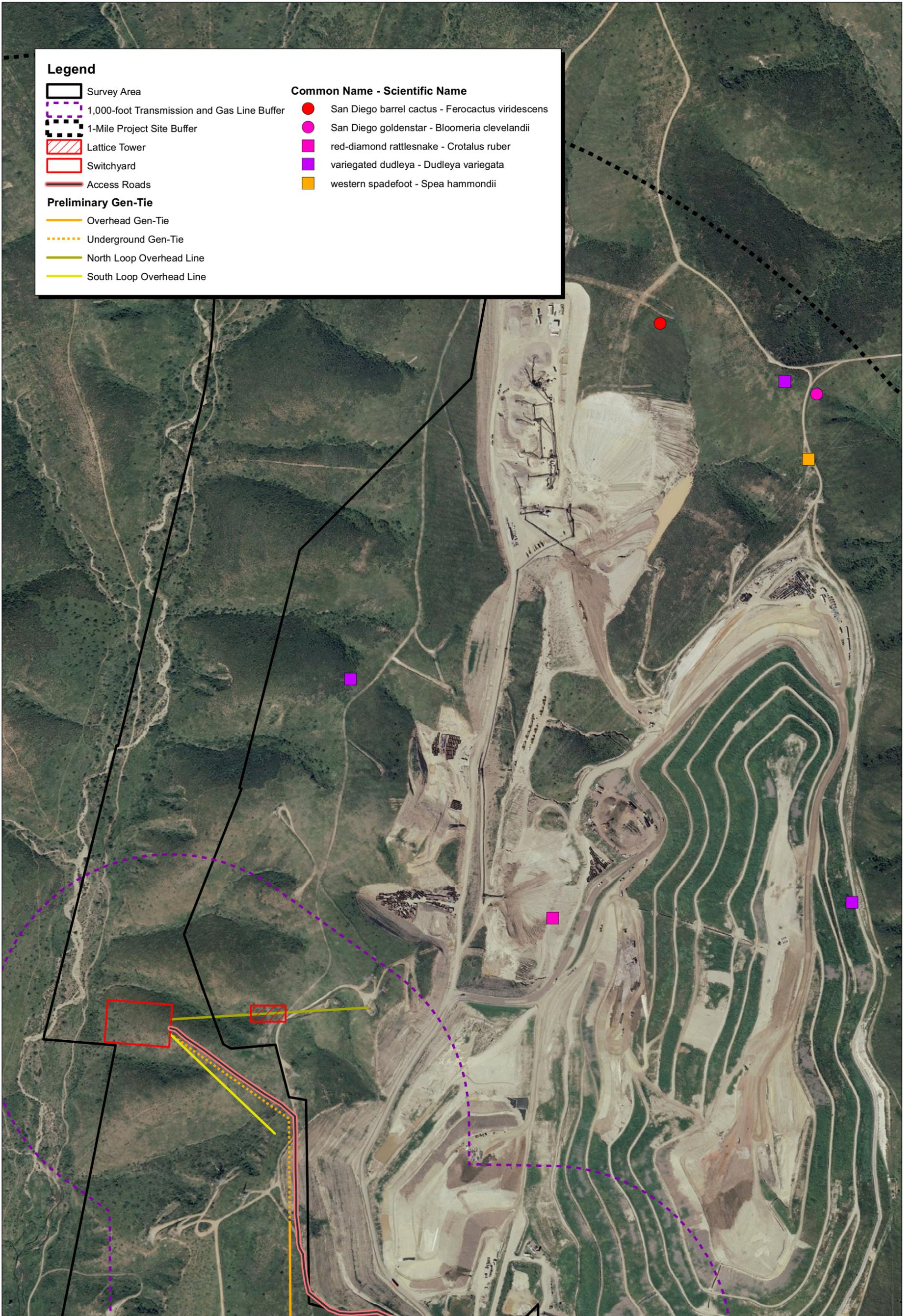
Legend

- 1,000-foot Transmission and Gas Line Buffer
- 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery. No CNDDDB Data Recorded in this extent.



Exhibit 4
CNDDDB 1-Mile Project Site Buffer Map
Quadrant A



Legend

- Survey Area
- 1,000-foot Transmission and Gas Line Buffer
- 1-Mile Project Site Buffer
- Lattice Tower
- Switchyard
- Access Roads

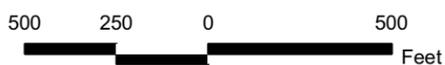
Common Name - Scientific Name

- San Diego barrel cactus - *Ferocactus viridescens*
- San Diego goldenstar - *Bloomeria clevelandii*
- red-diamond rattlesnake - *Crotalus ruber*
- variegated dudleya - *Dudleya variegata*
- western spadefoot - *Spea hammondii*

Preliminary Gen-Tie

- Overhead Gen-Tie
- Underground Gen-Tie
- North Loop Overhead Line
- South Loop Overhead Line

Source: ESRI Aerial Imagery. Tetra Tech EC Inc., 2011. CNDDDB Data September, 2011.



**Exhibit 4
CNDDDB 1-Mile Project Site Buffer Map
Quadrant B**

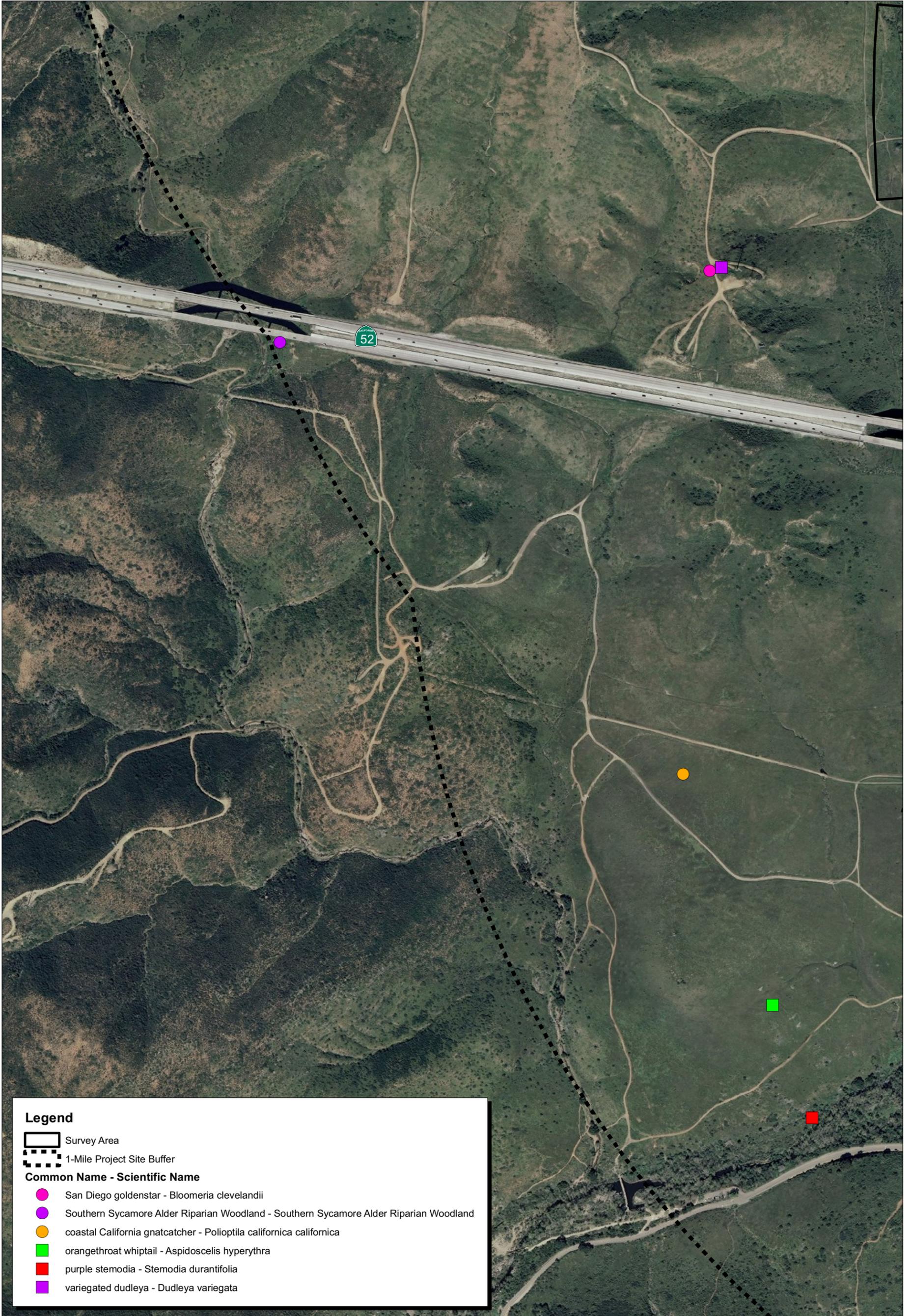


Legend
 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery. No CNDDDB Data Recorded in this extent.



Exhibit 4
CNDDDB 1-Mile Project Site Buffer Map
Quadrant C



Legend

-  Survey Area
-  1-Mile Project Site Buffer

Common Name - Scientific Name

-  San Diego goldenstar - *Bloomeria clevelandii*
-  Southern Sycamore Alder Riparian Woodland - Southern Sycamore Alder Riparian Woodland
-  coastal California gnatcatcher - *Poliopitila californica californica*
-  orangethroat whiptail - *Aspidoscelis hyperythra*
-  purple stemodia - *Stemodia durantifolia*
-  variegated dudleya - *Dudleya variegata*

Source: ESRI Aerial Imagery, CNDDDB Data September, 2011.

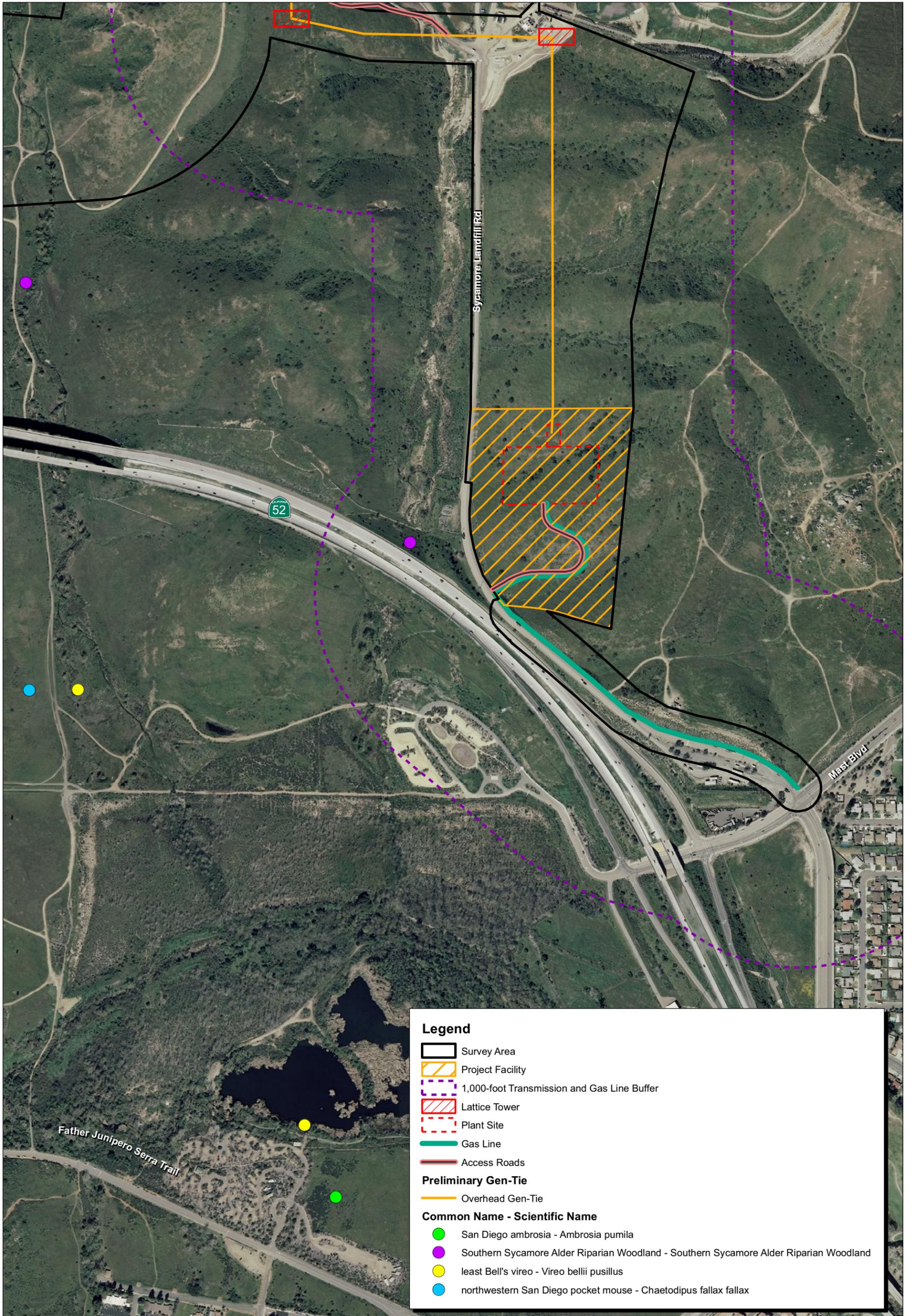


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**Exhibit 4
CNDDDB 1-Mile Project Site Buffer Map
Quadrant D**

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



Legend

- Survey Area
- Project Facility
- 1,000-foot Transmission and Gas Line Buffer
- Lattice Tower
- Plant Site
- Gas Line
- Access Roads

Preliminary Gen-Tie

- Overhead Gen-Tie

Common Name - Scientific Name

- San Diego ambrosia - *Ambrosia pumila*
- Southern Sycamore Alder Riparian Woodland - Southern Sycamore Alder Riparian Woodland
- least Bell's vireo - *Vireo bellii pusillus*
- northwestern San Diego pocket mouse - *Chaetodipus fallax fallax*

Source: ESRI Aerial Imagery. Tetra Tech EC, Inc., 2011. CNDDDB Data September, 2011.



Exhibit 4
 CNDDDB 1-Mile Project Site Buffer Map
 Quadrant E



Source: ESRI Aerial Imagery. CNDDDB Data September, 2011.



17510009 • 09/2011 | 4_cnddb_1mile_buffer_f.mxd

Exhibit 4
 CNDDDB 1-Mile Project Site Buffer Map
 Quadrant F

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
 DATA ADEQUACY RESPONSE



Legend

 1-Mile Project Site Buffer
Common Name- Scientific Name
 San Diego ambrosia - *Ambrosia pumila*
 least Bell's vireo - *Vireo bellii pusillus*

Source: ESRI Aerial Imagery, No CNDDDB Data Recorded in this extent.



Exhibit 4
 CNDDDB 1-Mile Project Site Buffer Map
 Quadrant G

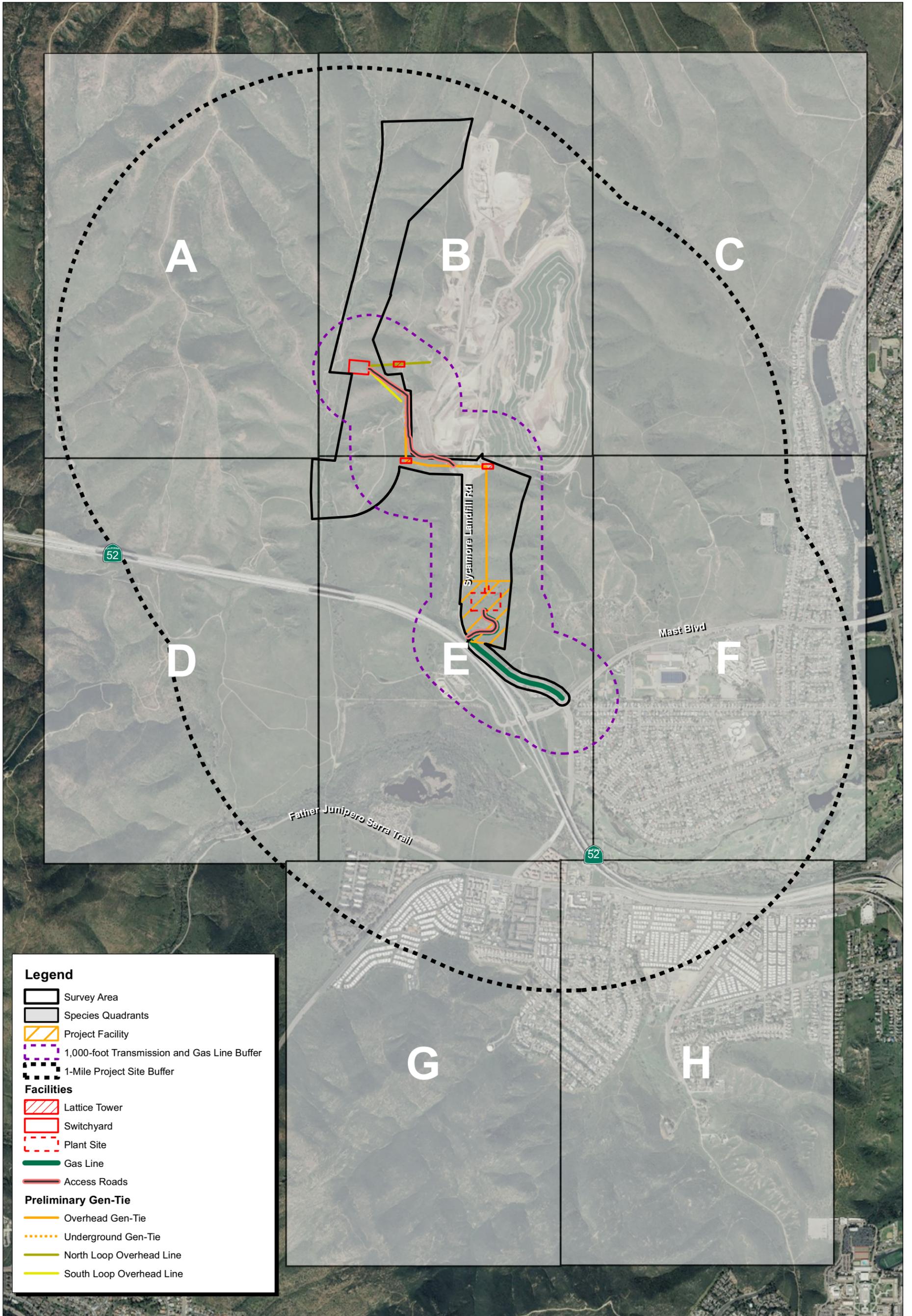


Legend
 [Dashed Line] 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery, No CNDDDB Data Recorded in this extent.



Exhibit 4
CNDDDB 1-Mile Project Site Buffer Map
Quadrant H



Source: ESRI Aerial Imagery. Tetra Tech EC, Inc., 2011.



Exhibit 5 Species Observed 1-Mile Project Site Buffer Index Map

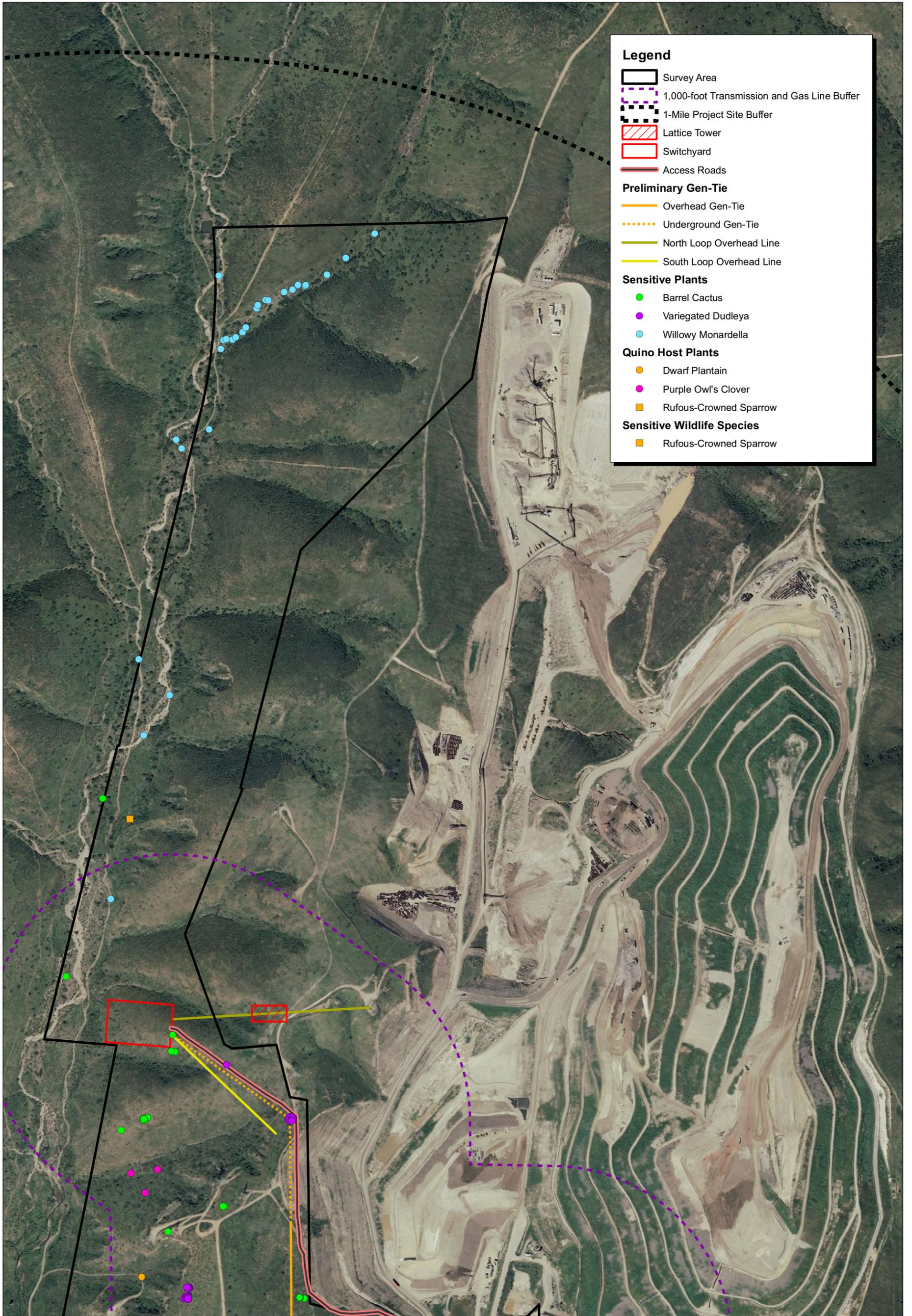


Legend
 1,000-foot Transmission and Gas Line Buffer
 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery. No Field Survey Data available in this extent.



Exhibit 5
 Species Observed 1-Mile Project Site Buffer Map
 Quadrant A



Legend

- Survey Area
- 1,000-foot Transmission and Gas Line Buffer
- 1-Mile Project Site Buffer
- Lattice Tower
- Switchyard
- Access Roads

Preliminary Gen-Tie

- Overhead Gen-Tie
- Underground Gen-Tie
- North Loop Overhead Line
- South Loop Overhead Line

Sensitive Plants

- Barrel Cactus
- Variegated Dudleya
- Willowy Monardella

Quino Host Plants

- Dwarf Plantain
- Purple Owl's Clover
- Rufous-Crowned Sparrow

Sensitive Wildlife Species

- Rufous-Crowned Sparrow

Source: ESRI Aerial Imagery. Tetra Tech EC Inc., 2011. MBA Field Survey and GIS Data, 2011.



Exhibit 5
Species Observed 1-Mile Project Site Buffer Map
Quadrant B

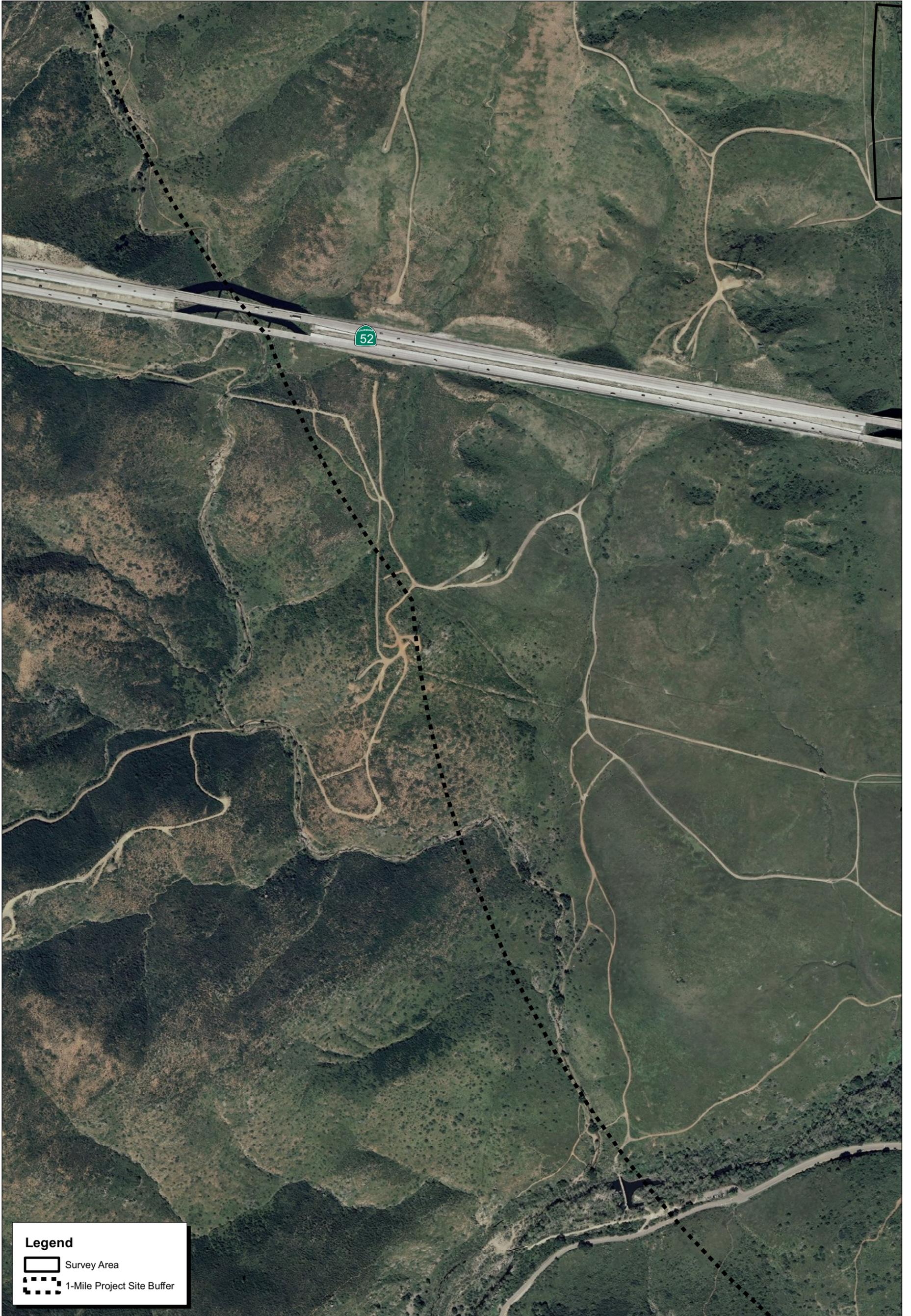


Legend
 [Dashed Line] 1-Mile Project Site Buffer

Source: ESRI Aerial Imagery. No Field Survey Data available in this extent.



Exhibit 5
Species Observed 1-Mile Project Site Buffer Map
Quadrant C



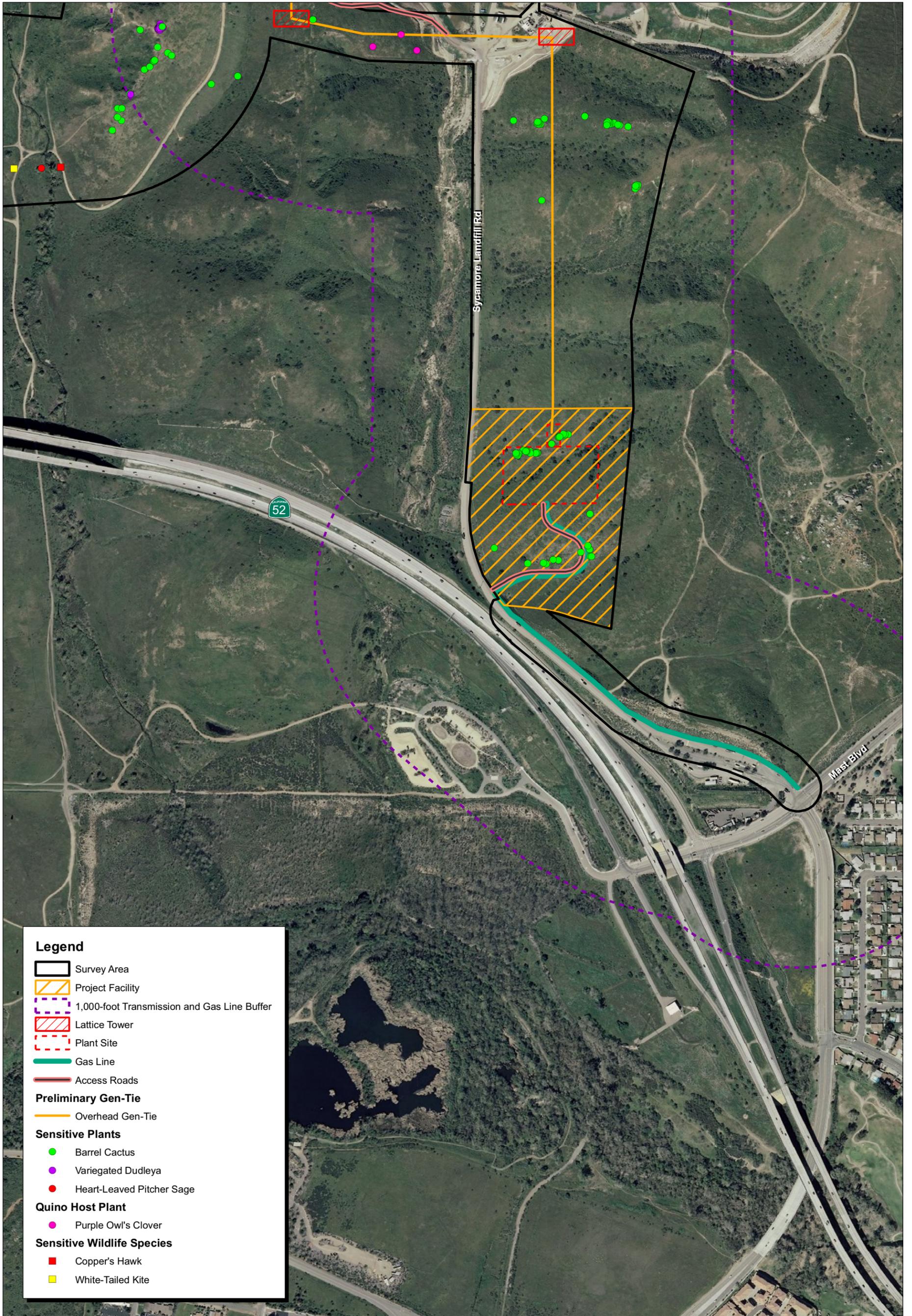
Source: ESRI Aerial Imagery, No Field Survey Data Available in this extent.



17510009 • 09/2011 | 5_speciesobserved_1mile_buffer_d.mxd



Exhibit 5
 Species Observed 1-Mile Project Site Buffer Map
 Quadrant D



Legend

- Survey Area
- Project Facility
- 1,000-foot Transmission and Gas Line Buffer
- Lattice Tower
- Plant Site
- Gas Line
- Access Roads

Preliminary Gen-Tie

- Overhead Gen-Tie

Sensitive Plants

- Barrel Cactus
- Variegated Dudleya
- Heart-Leaved Pitcher Sage

Quino Host Plant

- Purple Owl's Clover

Sensitive Wildlife Species

- Copper's Hawk
- White-Tailed Kite

Source: ESRI Aerial Imagery. Tetra Tech EC, Inc., 2011. MBA Field Survey and GIS Data, 2011.



Exhibit 5
Species Observed 1-Mile Project Site Buffer Map
Quadrant E



Source: ESRI Aerial Imagery. No Field Survey Data available in this extent.



17510009 • 09/2011 | 5_speciesobserved_1mile_buffer_f.mxd

Exhibit 5 Species Observed 1-Mile Project Site Buffer Map Quadrant F

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE



Source: ESRI Aerial Imagery, No Field Survey Data available in this extent.



17510009 • 09/2011 | 3_speciesobserved_1mile_buffer_g.mxd



Exhibit 5
Species Observed 1-Mile Project Site Buffer Map
Quadrant G



Source: ESRI Aerial Imagery, No Field Survey Data available in this extent.



17510009 • 09/2011 | 5_speciesobserved_1mile_buffer.mxd



Exhibit 5 Species Observed 1-Mile Project Site Buffer Map Quadrant H

TETRA TECH EC, INC. • QUAIL BRUSH PROJECT
DATA ADEQUACY RESPONSE

ATTACHMENT B.1
PRIVATE LAND ACCESS DOCUMENTATION

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Property Profile SAN DIEGO

Prepared By:

Prepared For:

Parcel Number: 366-070-31-00

Owner 1: M & A GABAE

Owner 2:

Site Address:

City/State: SAN DIEGO CA

Mail Address: 9034 W SUNSET BLVD

City/State: WEST HOLLYWOOD CA

90069

Phone:

Pg-Grd: 1230-E3/1230-E3

Census: 0095.042

Ownership: CO-OWNER

Zoning: R1

Block/Lot: /3

Map Num: 0001703

Flood Panel:

Legal Description: POR LOTS 3 & 10 TR 1703

Property Characteristics

Use Description: VACANT MISCELLANEOUS

Year Built:

Beds/Baths:

#Stories:

Units:

#Rooms:

Lot Size: 37.21 A

Square Feet:

Use Code: VMSC

Garage:

Pool:

View:

Sale/Loan Information

Sale Date: 02/10/2010

Sale Amount: \$100,000 F

1st Trust Deed:

+Addl:

Last Trans W/O \$:

Last Trans W/O \$ Doc#:

Doc#: 68023

\$/SqFt:

LoanTy: //RES

PrevDt:

PrevAm:

Buyer: M & A GABAE

Seller: CAMP ELLIOT LLC

Lender:

Title: STEWART TITLE

Assessment/Tax Information

Assessed: \$23,496

Land: \$23,496

Improv: \$0

perc: 0%

Tax: \$1,072.36

Status: CUR

Tax Rate Area: 008060

Exempt:

Tax Year: 2010-2011

Mark Gabee - mark@charles-company.com

Property Profile SAN DIEGO

Prepared By:

Prepared For:

Parcel Number: 366-070-32-00
Owner 1: CAMP ELLIOTT L L C
Owner 2:
Site Address:
City/State: SAN DIEGO CA
Mail Address: 26039 ACERO 101
City/State: MISSION VIEJO CA

Phone:
Pg-Grd: 1230-E3/1230-E3
Census: 0095.042
Ownship: CO-OWNER
Zoning: R1
Block/Lot: /3
Map Num: 0001703
Flood Panel:

92691

Legal Description: POR LOTS 3 & 10 TR 1703

Property Characteristics

Use Description: VACANT MISCELLANEOUS
Year Built:
Beds/Baths:
#Stories:

Units:
#Rooms:
Lot Size: 18.01 A
Square Feet:

Use Code: VMSC
Garage:
Pool:
View:

Sale/Loan Information

Sale Date: 02/08/2005
Sale Amount:
1st Trust Deed:
+Addl:
Last Trans W/O \$:
Last Trans W/O \$ Doc#:

Doc#: 104375
\$/SqFt:
LoanTy: //RES
PrevDt:
PrevAm:

Buyer: CAMP ELLIOTT LLC
Seller: HERRMANN FAMILY
Lender:
Title:

Assessment/Tax Information

Assessed: \$13,141
Land: \$13,141
Improv: \$0
perc: 0%

Tax: \$540.46
Status: CUR
Tax Rate Area: 008060
Exempt:
Tax Year: 2010-2011

Gabae APN 366-070-32 (18.01 acres)
366-070-31 (37.21 acres)

David Dilday

From: David Dilday
Sent: Monday, May 09, 2011 5:11 PM
To: 'mark@charles-company.com'
Subject: Mitigation Land next to Landfill in San Diego

Mark,

Thank you for allowing my client access to your property to perform the biology for their transmission route line for their power plant. As I mentioned, we have identified several parcels in the area for mitigation and for location of a small switchyard facility.

My client has authorized me to contact you to inquire about your willingness to enter an option agreement for 18 months. I would like to purchase the smaller 18 acre parcel, identified as APN 366-070-32. I would like to purchase the parcel and my client would make monthly option payments after a 60 day feasibility period for 18 months, with option payments applicable to the purchase price.

Mark, I understand that you purchased this property as mitigation for an industrial project in the South bay, but it would appear that you could make a nice profit by flipping this to my client.

Please let me know if your company has any interest in pursuing a deal with my client.

Regards,

Dave Dilday
American Pacific Investments
4275 Executive Sq. Suite 1050
La Jolla, Ca 92037
Ph: 858.350.5831

* Mark Gabae gave me verbal approval to survey his properties referenced as APN 366-070-31 and 32 on May 9th 2011

David Dilday
David Dilday, Broker

Property Profile
County SAN DIEGO,

Parcel Number 366-031-16-00
Owner Name ALFRED & JOYCE IMHOF
Site Address
City/State/Zip , -
Mail Address 8661 ELMER LN
City/State/Zip GARDEN GROVE, CA 92841-1045
Legal Descr 8.09 AC M/L IN\ LOT 73

Census 060730095.0420
Zone R-1:SINGLE FA
Block
Tract
Lot

Property Characteristics

Use Descr Agricultural-Unimproved Vacant Land	Square Feet 0	Fireplaces
Year Built	LotSize 352,400 SF	Pool
Rooms 0	Basement	Heat
Bed/Bath 0/0.00	Type Construction	Cool
Units 0	Roof Cover	Garage Type
Stories		Gar # of Car 0
View		Sewer

Sale Information

Document #	Sale Date	Prev Date
Buyer	Sale Amount \$ 0	Prev Amount \$ 0
Seller		Cost per SqFt \$ 0
Title Company		

Assessment/Tax Information

Assessed Value \$ 37,854	Tax Amount \$ 610
Land Value \$ 37,854	Tax Delinquent N
Improvement \$ 0	Tax Exempt None
% Improvement 0	Tax Rate Area 8-123
	Tax Year 2010



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Postage	\$ 0.44	0075
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Return Receipt Fee (Endorsement Required)	\$ 0.00	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees:	\$ 3.29	08/15/2011

Sent To **Mr. Al Imhof**
 Street, Apt. No.;
 or PO Box No. **8661 Elmer Lane**
 City, State, ZIP+4 **Garden Grove, Ca 92841**

PS Form 3800, August 2006 See Reverse for Instructions

I certify that on May 14th 2011,
 Mr. Al Imhof gave me authorization
 for Cogentrix to conduct biology and
 cultural studies on his property identified as
 APN 366-031-16.

x Dave Dilday
 Dave Dilday, ADI



Property Information

Primary Owner : KEYSTONE TRUST (12-05-00) (1/3)
Secondary Owner : ENDER ALBERT ET AL
Site Address :
92071-
Mailing Address : 2436 RIDGEMARK DR
SANTA MARIA, CA 93455
Assessor Parcel Number : 366-070-30-00
Census Tract : 0095.04
Housing Tract Number : N/A
Lot Number : N/A
Page Grid : -
Legal Description : Abbreviated Description: CITY:SAN DIEGO POR LOT 3 MAP REF:001703;
City/Muni/Twp: SAN DIEGO

Property Characteristics

Bedrooms : 0	Year Built : N/A	Square Feet : 0
Bathrooms : 0.0	Garage : N/A	Lot size : 12.03 AC
Partial Bath : 0	Fireplace : N/A	Number of Units : 0
Total Rooms : 0	Pool/Spa : N	Use Code : Vacant Land(General)
Zoning : R-1:SINGLE		

Sale Information

Transfer Date : 12/16/2005	Document # : 2005-1080607
Transfer Value : N/A	Cost/Sq Feet : N/A

Assessment/Tax Information

Assessed Value : \$31,041	Tax Amount : \$616.86
Land Value : \$31,041	Tax Status : Current
Improvement Value : \$0	Tax Rate Area : 8-060
Percent Improvement : 0 %	Homeowner Exemption : N

Data Deemed Reliable, But Not Guaranteed.

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08/16/2011 08:24:47 AM Customer Service Rep: JACKIE



David Dilday

From: Palo, Gary [GaryPalo@COGENTRIX.COM]
Sent: Monday, May 16, 2011 5:58 PM
To: David Dilday
Subject: Re: Keystone Trust Parcel 36607030

Ok

From: David Dilday <dave@daveampac.com>
To: Palo, Gary
Sent: Mon May 16 20:57:51 2011
Subject: RE: Keystone Trust Parcel 36607030

Gary,

I have an e-mail so I will forward to him the language that we used with the other owner's. I will forward his response as soon as I get it back from him.

Regards,

Dave Dilday
American Pacific Investments
858.350.5831

From: Palo, Gary [mailto:GaryPalo@COGENTRIX.COM]
Sent: Monday, May 16, 2011 5:51 PM
To: David Dilday
Subject: Re: Keystone Trust Parcel 36607030

David,

Very good news. Do you need an email from me to forward to him or is your phone call sufficient for the survey approval. It would be good if you sent an email to him thanking him for his cooperation so that we have something in your file in case we need it later. Thanks again for tracking them down, and we now have a sufficient number of mitigation parcels to choose from to meet out requirements.

Gary

Gary

From: David Dilday <dave@daveampac.com>
To: Palo, Gary
Sent: Mon May 16 20:25:56 2011
Subject: RE: Keystone Trust Parcel 36607030

Gary,

*I certify that on May 16, 2011
Hal Herritt gave me verbal
authorization to conduct biology and
cultural studies on his property.*

Spoke with the owner of the Keystone property, Hal Herritt, and he is OK with the consultants accessing the land for the studies. He also indicated that he would be amenable to a sale or option on the property.

[Signature]
Dave Dilday, ADI
3/11/11

Property Profile SPRING CANYON RD , , CA -
County SAN DIEGO, CA

Parcel Number 366-031-15-00
Owner Name LAWRENCE MADAY / Diane Johnson
Site Address SPRING CANYON RD
City/State/Zip , CA -
Mail Address 950 BEECHWOOD RD
City/State/Zip BUFFALO GROVE, IL 60089-3240
Legal Descr 9.05 AC M/L IN LOT 73

Census 060730095.0420
Zone R-1:SINGLE FA
Block
Tract
Lot

Property Characteristics

Use Descr Agricultural-Unimproved Vacant Land	Fireplaces
Year Built	Pool
Rooms 0	Heat
Bed/Bath 0/0.00	Cool
Units 0	Garage Type
Stories	Gar # of Car 0
View	Sewer
Square Feet 0	
LotSize 394,218 SF	
Basement	
Type Construction	
Roof Cover	

Sale Information

Document #	Sale Date	Prev Date
Buyer ,	Sale Amount \$ 0	Prev Amount \$ 0
Seller ,		Cost per SqFt \$ 0
Title Company		

Assessment/Tax Information

Assessed Value \$ 135,243	Tax Amount \$ 1,746
Land Value \$ 135,243	Tax Delinquent N
Improvement \$ 0	Tax Exempt None
% Improvement 0	Tax Rate Area 8-123
	Tax Year 2010



Maday 366-031-15
(9.05 acres)

David Dilday

From: ladydi727@aol.com
Sent: Friday, August 12, 2011 12:10 PM
To: David Dilday
Subject: Re: Wetlands Summary

Dave,

You do have my permission to access my property for biology purposes.

Diane

Diane Johnson (Maday)

-----Original Message-----

From: David Dilday <dave@daveampac.com>
To: Ladydi727 <Ladydi727@aol.com>
Sent: Tue, Aug 9, 2011 5:10 pm
Subject: RE: FW: Wetlands Summary

Diane,

Cogentrix to perform the biology on your property and I will forward you the full report. Please respond that it is OK for

Once we know what our land purchase requirements are for the area, we will be in a better position to make offers on parcels that fit our mitigation requirements.

Thank you for your patience and cooperation.

Regards,

Dave Dilday
American Pacific Investments
619.200.9787

From: Ladydi727@aol.com [<mailto:Ladydi727@aol.com>]
Sent: Friday, July 15, 2011 4:08 AM
To: David Dilday
Subject: Re: FW: Wetlands Summary

Thanks for the info Dave. Had a couple of other inquiries but you were the first.

Diane

Diane

In a message dated 7/14/2011 6:05:37 P.M. Central Daylight Time, dave@daveampac.com writes:

Diane,

Not sure whether we will be making an offer on the property, but attached please find a copy of the biology report performed on the property. I should have some direction from my client within the next few weeks.

Regards,

Ramsey and Fra Najor
Sent via mail

Property Profile , , -
County SAN DIEGO,

Parcel Number 366-031-12-00
Owner Name RAMSEY & RAMSEY NAJOR
Site Address
City/State/Zip , -
Mail Address PO BOX 85410
City/State/Zip SAN DIEGO, CA 92186-5410
Legal Descr 9.92 AC M/L IN LOT 73

Census 060730095.0420
Zone R-1:SINGLE FA
Block
Tract
Lot

Property Characteristics

Use Descr Agricultural-Unimproved Vacant Land	Square Feet 0	Fireplaces
Year Built	LotSize 432,115 SF	Pool
Rooms 0	Basement	Heat
Bed/Bath 0/0.00	Type Construction	Cool
Units 0	Roof Cover	Garage Type
Stories		Gar # of Car 0
View		Sewer

Sale Information

Document #	Sale Date	Prev Date
Buyer ,	Sale Amount \$ 0	Prev Amount \$ 0
Seller ,		Cost per SqFt \$ 0
Title Company		

Assessment/Tax Information

Assessed Value \$ 13,406	Tax Amount \$ 369
Land Value \$ 13,406	Tax Delinquent Y
Improvement \$ 0	Tax Exempt None
% Improvement 0	Tax Rate Area 8-123
	Tax Year 2010



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Restricted Delivery Fee (Endorsement Required)	\$ 00.00	
Total Postage & Fees	\$ 03.29	08/15/2011

Sent To Mr. and Mrs. Ira Najor
 Street, Apt. No., or PO Box No. P.O. Box 85410
 City, State, ZIP+4 San Diego, Ca 92186

PS Form 3800, August 2006 See Reverse for Instructions

I certify that on May 16th 2011, I received verbal authorization from Mr. Najor to conduct Biology and Cultural Studies on his property identified as APN 366-031-12.

Alan Ralder
 Dave Dilday, API



Property Information

Primary Owner : SELNA & MONGINI INVESTMENTS
Secondary Owner : N/A
Site Address : -
Mailing Address : PO BOX 35
JEROME, AZ 86331
Assessor Parcel Number : 366-031-17-00
Census Tract : 0095 04
Housing Tract Number : N/A
Lot Number : N/A
Page Grid : -
Legal Description : Abbreviated Description: CITY:SAN DIEGO 20.50 AC M/L IN\ LOT 73 MAP REF:CC000348, City/Muni/Twp: SAN DIEGO

Property Characteristics

Bedrooms : 0	Year Built : N/A	Square Feet : 0
Bathrooms : 0.0	Garage : N/A	Lot size : 20.5 AC
Partial Bath : 0	Fireplace : N/A	Number of Units : 0
Total Rooms : 0	Pool/Spa : N	Use Code : Agricultural-Unimproved Vacant Land
Zoning : R-1:SINGLE		

Sale Information

Transfer Date : N/A	Document # : N/A
Transfer Value : N/A	Cost/Sq Feet : N/A

Assessment/Tax Information

Assessed Value : \$57,889	Tax Amount : \$1,106.72
Land Value : \$57,889	Tax Status : Current
Improvement Value : \$0	Tax Rate Area : 8-123
Percent Improvement : 0 %	Homeowner Exemption : N





Property Information

Primary Owner : SELNA & MONGINI INVESTMENTS
Secondary Owner : N/A
Site Address : -
Mailing Address : PO BOX 35
JEROME, AZ 86331
Assessor Parcel Number : 366-031-20-00
Census Tract : 0095.04
Housing Tract Number : N/A
Lot Number : N/A
Page Grid : -
Legal Description : Abbreviated Description: CITY.SAN DIEGO 9.23 AC M/L IN\ LOT 73 MAP REF:CC000348, City/Muni/Twp: SAN DIEGO

Property Characteristics

Bedrooms : 0	Year Built : N/A	Square Feet : 0
Bathrooms : 0.0	Garage : N/A	Lot size : 9.23 AC
Partial Bath : 0	Fireplace : N/A	Number of Units : 0
Total Rooms : 0	Pool/Spa : N	Use Code : Residential-Vacant Land
Zoning : R-1.SINGLE		

Sale Information

Transfer Date : N/A	Document # : N/A
Transfer Value : N/A	Cost/Sq Feet : N/A

Assessment/Tax Information

Assessed Value : \$26,304	Tax Amount : \$503.72
Land Value : \$26,304	Tax Status : Current
Improvement Value : \$0	Tax Rate Area : 8-123
Percent Improvement : 0 %	Homeowner Exemption : N

Data Deemed Reliable, But Not Guaranteed

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07/25/2011 10:58:05 AM

Customer Service Rep

JACKIE



Selma & Mongini Investments
APN 366-031-17 (20.5 acres)

David Dilday

APN 366-031-20 (9.23 ac)

From: Palo,
Sent: Thursday, May 05, 2011 1:44 PM
To: David Dilday
Cc: Neff, Rick
Subject: RE: Selma and Mongini Investments Parcels 36608117 and 36603120 - Environmental Surveys

David,

We are responding to the landowner's request per the additional language added below and hope the additional language addresses their concerns.

The environmental surveys that Cogentrix is seeking landowner approval for our consultant Tetra Tech to conduct using experienced qualified personnel during daylight hours starting on Monday, May 9, 2011 on Selma and Mongini Investment owned parcel numbers 36608117 and 36603120 will include biological and cultural resources. Copies of all biological reports and redacted copies of cultural resources reports will be provided to the landowner(s) upon completion. We believe the information would help address the mitigation value of the parcels. Cogentrix Energy will indemnify the owners of the parcels against, and hold them harmless from, any claims of our consultants, and our and their agents and invitees resulting from their activities on or about the parcels in connection with these surveys.

Please let me know of the landowner's approval by email of our intended survey activities so that we can plan accordingly.

Regards,

 | Vice President Development | Cogentrix Energy, LLC |
| Newport Beach, CA 92660 |

This shall serve as authorization for Tetra Tech to conduct biological surveys on our property referenced above. All studies must be completed by July 1, 2011.

X  5/6/2011
Ray Selna Co-General Partner

Return Fax 858-350-5831 Dave Dilday

Jack Zarour

Property Profile SPRING CANYON RD , , CA 92071-
County SAN DIEGO, CA

Parcel Number 366-070-65-00	Census 060730095.0420
Owner Name CARMELLA ZAROOUR & LIVING TRUST OF CARMELLA SALIM	Zone AGRICULTURA
Site Address SPRING CANYON RD	Block
City/State/Zip , CA 92071-	Tract
Mail Address 3282 CABRILLO MESA DR	Lot
City/State/Zip SAN DIEGO, CA 92123-3062	
Legal Descr (EX RD&DOC05-424534)DOC04-366523 IN\ LOT 3	

Property Characteristics

Use Descr Agricultural-Unimproved Vacant Land	Square Feet 0	Fireplaces
Year Built	LotSize 403,801SF/9.27AC	Pool
Rooms 0	Basement	Heat
Bed/Bath 0/0.00	Type Construction	Cool
Units 0	Roof Cover	Garage Type
Stories		Gar # of Car 0
View		Sewer

Sale Information

Document #	Sale Date	Prev Date
Buyer	Sale Amount \$ 0	Prev Amount \$ 0
Seller		Cost per SqFt \$ 0
Title Company		Last Trans W/O \$ Doc #: 2010-0217473
Last Trans W/O \$: 04/30/2010		

Assessment/Tax Information

Assessed Value \$ 200,944	Tax Amount \$ 2,504
Land Value \$ 200,944	Tax Delinquent N
Improvement \$ 0	Tax Exempt None
% Improvement 0	Tax Rate Area 8-060
	Tax Year 2010



David Dilday

From: Jack and Jeanette [jzandjz@cox.net]
Sent: Wednesday, May 25, 2011 5:04 PM
To: David Dilday
Subject: Re: Biology/ Zarour 9.27 acres APN 366-070-65-00

Hello Dave,

Very well. Please use this response to your request as my authorization for your client to proceed with having Tetra Tech conduct the necessary biological and cultural surveys on our property. Looking forward to getting their reports and seeing if the property meets your client's acquisition parameters.

Sincerely,

Jack Zarour
(619) 244-3187
jzandjz@cox.net

From: [David Dilday](#)
Sent: Wednesday, May 25, 2011 12:35 PM
To: jzandjz@cox.net
Subject: FW: Biology/ Zarour 9.27 acres APN 366-070-65-00

From: David Dilday
Sent: Wednesday, May 25, 2011 12:16 PM
To: 'jzand@cox.net'
Subject: Biology/ Zarour 9.27 acres APN 366-070-65-00

Dear Jack,

Thank you for taking time yesterday to discuss your property located in East Elliott. I spoke to my client after our discussion and they would like your permission to access your property to do some environmental surveys to determine whether your property meets our acquisition parameters.

Tetra Tech, my client's biology consultant would like to conduct biological and cultural surveys on your property. Copies of all biology reports and redacted copies of cultural reports will be provided to you upon completion at no cost to you. Cogentrix agrees to indemnify the land owners of this parcel against, and hold harmless from any claims from our consultants, and our agents and invitees resulting from their activities on or about the parcels in connection with these surveys.

Please respond to this e-mail with your authorization to proceed with the surveys and this will suffice as approval to access the property referenced above in the subject line.

Thank you for your cooperation in this matter.

Regards,

ATTACHMENT B.2
CNDDDB LIST

This page intentionally left blank.

Tetra Tech EC, Inc.
 Cogentrix Quail Brush Generation Project
 Biological Data Adequacy Response to Comments

Attachment A



Quad is (Del Mar (3211782) or El Cajon (3211678) or Jamul Mountains (3211668) or La Jolla (3211772) or La Mesa (3211771) or National City (3211761) or Point Loma (3211762) or San Vicente Reservoir (3211688) or Poway (3211781))

CNDDDB Element Query Results

ScientificName	CommonName	ElementCode	OccCount	GlobalRank	StateRank	FederalListingStatus	StateListingStatus	CNPSList	OtherStatus	Habitat
Acanthomintha ilicifolia	San Diego thorn-mint	PDLAM01010	69	G2	S2	Threatened	Endangered	1B.1	USFS_S-Sensitive	Chaparral Coastal scrub Valley and foothill grassland Vernal pool Wetland
Accipiter cooperii	Cooper's hawk	ABNKC12040	102	G5	S3	None	None		DFG_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest
Adolphia californica	California adolphia	PDRHA01010	84	G3G4	S2	None	None	2.1		Chaparral Coastal scrub Valley and foothill grassland
Agave shawii	Shaw's agave	PMAGA010P0	4	G2G3	S1.2	None	None	2.1		Coastal bluff scrub Coastal scrub
Agelaius tricolor	tricolored blackbird	ABPBXB0020	427	G2G3	S2	None	None		ABC_WLBCC -Watch List of Birds of Conservation Concern BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC -Birds of Conservation Concern	Freshwater marsh Marsh and swamp Swamp Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	ABPBX91091	180	G5T2T4	S2S3	None	None		DFG_WL-Watch List	Chaparral Coastal scrub
Ambrosia chenopodiifolia	San Diego bur-sage	PDAST0C080	12	G3?	S2.1	None	None	2.1		Coastal scrub
Ambrosia monogyra	singlewhorl burrobush	PDAST50010	16	G5	S2.2	None	None	2.2		Chaparral Sonoran desert scrub
Ambrosia pumila	San Diego ambrosia	PDAST0C0M0	47	G1	S1.1	Endangered	None	1B.1		Chaparral Coastal scrub Valley and foothill grassland
Ammodramus savannarum	grasshopper sparrow	ABPBXA0020	16	G5	S2	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern	Valley and foothill grassland
Amphispiza belli belli	Bell's sage sparrow	ABPBX97021	56	G5T2T4	S2?	None	None		ABC_WLBCC -Watch List of Birds of Conservation Concern DFG_WL-Watch List USFWS_BCC -Birds of Conservation Concern	Chaparral Coastal scrub

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Anaxyrus californicus	arroyo toad	AAABB01230	122	G2G3	S2S3	Endangered	None		DFG_SSC-Species of Special Concern IUCN_EN-Endangered	Desert wash Riparian scrub Riparian woodland South coast flowing waters South coast standing waters
Anniella pulchra pulchra	silvery legless lizard	ARACC01012	91	G3G4T3T4Q	S3	None	None		DFG_SSC-Species of Special Concern USFS_S-Sensitive	Chaparral Coastal dunes Coastal scrub
Antrozous pallidus	pallid bat	AMACC10010	402	G5	S3	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive BWG_H-High Priority	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley and foothill grassland
Aphanisma blitoides	aphanisma	PDCHE02010	50	G3G4	S3	None	None	1B.2		Coastal bluff scrub Coastal dunes Coastal scrub
Aquila chrysaetos	golden eagle	ABNKC22010	141	G5	S3	None	None		BLM_S-Sensitive CDF_S-Sensitive DFG_FP-Fully Protected DFG_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest Cismontane woodland Coastal prairie Great Basin grassland Great Basin scrub Lower montane coniferous forest Pinon and juniper woodlands Upper montane coniferous forest Valley and foothill grassland
Arctostaphylos glandulosa ssp. crassifolia	Del Mar manzanita	PDERI040E8	45	G5T1	S1.1	Endangered	None	1B.1		Chaparral Closed-cone coniferous forest
Arctostaphylos otayensis	Otay manzanita	PDERI040Y0	18	G2	S2.1	None	None	1B.2	BLM_S-Sensitive	Chaparral Cismontane woodland
Artemisia palmeri	San Diego sagewort	PDAST0S160	36	G3	S3.2	None	None	4.2		Chaparral Coastal scrub Riparian forest Riparian woodland
Aspidoscelis hyperythra	orangethroat whiptail	ARACJ02060	339	G5	S2	None	None		DFG_SSC-Species of Special Concern IUCN_LC-	Chaparral Cismontane woodland Coastal scrub

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Aspidoscelis tigris stejnegeri	coastal whiptail	ARACJ02143	112	G5T3T4	S2S3	None	None		Least Concern	
Astragalus deaneii	Dean's milk-vetch	PDFAB0F2R0	18	G2	S2.1	None	None	1B.1	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Coastal scrub Riparian forest
Astragalus tener var. titi	coastal dunes milk-vetch	PDFAB0F8R2	6	G1T1	S1.1	Endangered	Endangered	1B.1		Coastal bluff scrub Coastal dunes
Athene cunicularia	burrowing owl	ABNSB10010	1808	G4	S2	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley and foothill grassland
Atriplex coulteri	Coulter's saltbush	PDCHE040E0	70	G2	S2.2	None	None	1B.2		Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland
Atriplex pacifica	South Coast saltscale	PDCHE041C0	37	G3G4	S2.2	None	None	1B.2		Chenopod scrub Coastal bluff scrub Coastal scrub
Atriplex serenana var. davidsonii	Davidson's saltscale	PDCHE041T1	23	G5T2?	S2?	None	None	1B.2		Coastal bluff scrub Coastal scrub
Baccharis vanessae	Encinitas baccharis	PDAST0W0P0	25	G1	S1.1	Threatened	Endangered	1B.1	USFS_S-Sensitive	Chaparral
Berberis nevini	Nevin's barberry	PDBER060A0	34	G2	S2.2	Endangered	Endangered	1B.1	USFS_S-Sensitive	Chaparral Cismontane woodland Coastal scrub Riparian scrub
Bergerocactus emoryi	golden-spined cereus	PDCAC11010	32	G2G3	S2.1	None	None	2.2		Chaparral Coastal scrub
Bloomeria clevelandii	San Diego goldenstar	PMLIL1H010	68	G2	S2	None	None	1B.1	BLM_S-Sensitive	Chaparral Coastal scrub Valley and foothill grassland Vernal pool Wetland
Branchinecta sandiegonensis	San Diego fairy shrimp	ICBRA03060	67	G1	S1	Endangered	None		IUCN_EN-Endangered	Chaparral Coastal scrub Vernal pool Wetland
Brodiaea filifolia	thread-leaved brodiaea	PMLIL0C050	79	G2	S2.1	Threatened	Endangered	1B.1	USFS_S-Sensitive	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pool Wetland
Brodiaea orcuttii	Orcutt's brodiaea	PMLIL0C0B0	105	G1	S1	None	None	1B.1	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Cismontane woodland Closed-cone coniferous forest

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<i>Callophrys thornei</i>	Thorne's hairstreak	IILEPE2150	6	G1	S1	None	None		BLM_S-Sensitive	Meadow and seep Ultramafic Valley and foothill grassland Vernal pool Wetland
<i>Calochortus dunnii</i>	Dunn's mariposa-lily	PMLIL0D0C0	25	G2	S2.1	None	Rare	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Closed-cone coniferous forest Ultramafic
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	ABPBG02095	151	G5T3Q	S3	None	None		DFG_SSC-Species of Special Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Coastal scrub
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	PDRHA04070	26	G2	S2.2	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Closed-cone coniferous forest
<i>Ceanothus otayensis</i>	Otay Mountain ceanothus	PDRHA04430	4	G1	S1.2	None	None	1B.2		Chaparral Ultramafic
<i>Ceanothus verrucosus</i>	wart-stemmed ceanothus	PDRHA041J0	44	G3	S2.2	None	None	2.2		Chaparral
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	PDAST4R0P4	76	G4T2	S2	None	None	1B.1		Marsh and swamp Salt marsh Valley and foothill grassland Wetland
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	PDAST4R0R4	87	G3G4T2	S2.1	None	None	1B.1		Alkali playa Chenopod scrub Meadow and seep Riparian woodland Valley and foothill grassland Wetland
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	PDAST20095	23	G5T1	S1	None	None	1B.1		Coastal bluff scrub Coastal dunes
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	AMAFD05021	53	G5T3	S2?	None	None		DFG_SSC-Species of Special Concern	Chaparral Coastal scrub Valley and foothill grassland
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	AMAFD05031	94	G5T3	S2S3	None	None		DFG_SSC-Species of Special Concern	Chaparral Coastal scrub
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	ABNNB03031	117	G4T3	S2	Threatened	None		ABC_WLBCC-Watch List of Birds of Conservation Concern DFG_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters Sand shore Wetland
<i>Charina trivirgata</i>	rosy boa	ARADA01020	47	G4G5	S3S4	None	None		IUCN_LC-Least Concern USFS_S-Sensitive	Chaparral Mojavean desert scrub Sonoran desert scrub
<i>Chelonia mydas</i>	green turtle	ARAAA02010	2	G3	S1	Threatened	None		IUCN_EN-Endangered	Marine bay

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Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	PDSCR0J0C2	29	G4?T2	S2.1	Endangered	Endangered	1B.2		Coastal dunes Marsh and swamp Salt marsh Wetland
Choeronycteris mexicana	Mexican long-tongued bat	AMACB02010	14	G4	S1	None	None		DFG_SSC-Species of Special Concern IUCN_NT-Near Threatened WBWG_H-High Priority	Pinon and juniper woodlands Riparian scrub Sonoran thorn woodland
Chorizanthe orcuttiana	Orcutt's spineflower	PDPGN040G0	11	G1	S1.1	Endangered	Endangered	1B.1		Chaparral Closed-cone coniferous forest Coastal scrub
Chorizanthe polygonoides var. longispina	long-spined spineflower	PDPGN040K1	99	G5T3	S3	None	None	1B.2	USFS_S-Sensitive	Chaparral Coastal scrub Meadow and seep Ultramafic Valley and foothill grassland
Cicindela gabbii	western tidal-flat tiger beetle	IICOL02080	7	G4	S1	None	None			Estuary Mud shore/flats
Cicindela hirticollis gravida	sandy beach tiger beetle	IICOL02101	34	G5T2	S1	None	None			Coastal dunes
Cicindela latesignata latesignata	western beach tiger beetle	IICOL02113	15	G4T1T2	S1	None	None			Mud shore/flats
Cicindela senilis frosti	senile tiger beetle	IICOL02121	9	G4T1	S1	None	None			Mud shore/flats Wetland
Clarkia delicata	delicate clarkia	PDONA050D0	31	G2	S2.2	None	None	1B.2	USFS_S-Sensitive	Chaparral Cismontane woodland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	117	G5T3Q	S1	Candidate	Endangered		BLM_S-Sensitive USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Riparian forest
Coelus globosus	globose dune beetle	IICOL4A010	35	G1	S1	None	None		IUCN_VU-Vulnerable	Coastal dunes
Comarostaphylis diversifolia ssp. diversifolia	summer holly	PDERI0B011	80	G3T2	S2	None	None	1B.2		Chaparral
Corethrogyne filaginifolia var. incana	San Diego sand aster	PDAST2M025	9	G4T1	S1.1	None	None	1B.1		Chaparral Coastal bluff scrub Coastal scrub
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	PDAST2M027	30	G4T1	S1.1	None	None	1B.1		Chaparral Coastal scrub
Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	237	G4	S2S3	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow and seep Mojavean desert scrub Riparian forest Riparian

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Crotalus ruber	red-diamond rattlesnake	ARADE02090	115	G4	S2?	None	None		DFG_SSC-Species of Special Concern	woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley and foothill grassland Chaparral Mojavean desert scrub Sonoran desert scrub
Danaus plexippus	monarch butterfly	IILEPP2010	334	G5	S3	None	None			Closed-cone coniferous forest
Deinandra conjugens	Otay tarplant	PDAST4R070	36	G1	S1.1	Threatened	Endangered	1B.1		Coastal scrub Valley and foothill grassland
Dendroica petechia brewsteri	yellow warbler	ABPBX03018	48	G5T3?	S2	None	None		DFG_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Riparian woodland
Diadophis punctatus similis	San Diego ringneck snake	ARADB1001A	10	G5T2T3	S2?	None	None		USFS_S-Sensitive	
Dicranostegia orcuttiana	Orcutt's bird's-beak	PDSCR0J0G0	6	G2?	S1.1	None	None	2.1		Coastal scrub
Dudleya brevifolia	short-leaved dudleya	PDCRA04053	10	G2T1	S1.1	None	Endangered	1B.1		Chaparral Coastal scrub
Dudleya variegata	variegated dudleya	PDCRA040R0	59	G2	S2.2	None	None	1B.2	BLM_S-Sensitive	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland
Dudleya viscida	sticky dudleya	PDCRA040T0	23	G2	S2.2	None	None	1B.2	USFS_S-Sensitive	Chaparral Coastal bluff scrub Coastal scrub
Elanus leucurus	white-tailed kite	ABNKC06010	156	G5	S3	None	None		BLM_S-Sensitive DFG_FP-Fully Protected IUCN_LC-Least Concern	Cismontane woodland Marsh and swamp Riparian woodland Valley and foothill grassland Wetland
Empidonax traillii extimus	southwestern willow flycatcher	ABPAE33043	62	G5T1T2	S1	Endangered	Endangered		ABC_WLBCC-Watch List of Birds of Conservation Concern	Riparian woodland
Eremophila alpestris actia	California horned lark	ABPAT02011	76	G5T3Q	S3	None	None		DFG_WL-Watch List IUCN_LC-Least Concern	Marine intertidal and splash zone communities Meadow and seep
Ericameria palmeri var. palmeri	Palmer's goldenbush	PDAST3L0C1	16	G4T2T3	S1	None	None	1B.1	BLM_S-Sensitive	Chaparral Coastal scrub
Eryngium aristulatum var. parishii	San Diego button-celery	PDAP10Z042	75	G5T2	S2.1	Endangered	Endangered	1B.1		Coastal scrub Valley and foothill grassland Vernal pool Wetland
Erysimum amphilium	sand-loving wallflower	PDBRA16010	28	G2	S2.2	None	None	1B.2	BLM_S-Sensitive	Chaparral Coastal

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Euderma maculatum	spotted bat	AMACC07010	68	G4	S2S3	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	dunes Coastal scrub
Eumops perotis californicus	western mastiff bat	AMACD02011	293	G5T4	S3?	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern WBWG_H-High Priority	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland
Euphorbia misera	cliff spurge	PDEUP0Q1B0	34	G5	S1	None	None	2.2		Coastal bluff scrub Coastal scrub Mojavean desert scrub
Euphydryas editha quino	quino checkerspot butterfly	IILEPK405L	95	G5T1	S1	Endangered	None		XERCES_CI-Critically Imperiled	Chaparral Coastal scrub
Falco mexicanus	prairie falcon	ABNKD06090	456	G5	S3	None	None		DFG_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley and foothill grassland
Falco peregrinus anatum	American peregrine falcon	ABNKD06071	33	G4T3	S2	Delisted	Delisted		CDF_S-Sensitive DFG_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	
Ferocactus viridescens	San Diego barrel cactus	PDCAC08060	154	G4	S2	None	None	2.1		Chaparral Coastal scrub Valley and foothill grassland
Frankenia palmeri	Palmer's frankenia	PDFRA01040	3	G3G4	S1.1	None	None	2.1		Coastal dunes Marsh and swamp Salt marsh Wetland
Fremontodendron mexicanum	Mexican flannelbush	PDSTE03020	8	G2	S2.1	Endangered	Rare	1B.1	USFS_S-Sensitive	Chaparral Cismontane woodland Closed-cone coniferous forest Ultramafic
Galium proliferum	desert bedstraw	PDRUB0N1V0	9	G5	S2	None	None	2.2		Joshua tree woodland Limestone Mojavean desert scrub Pinon and juniper woodlands
Geothallus tuberosus	Campbell's liverwort	NBHEP1C010	4	G1	S1	None	None	1B.1	USFS_S-Sensitive	Chaparral Coastal scrub Valley and foothill grassland Vernal pool Wetland

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<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>	Mission Canyon bluecup	PDCAM07023	3	G5T2T3	S1.1	None	None	3.1	USFS_S-Sensitive	Chaparral
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	PDBOR0H010	57	G4	S3.2	None	None	4.2		Chaparral Coastal scrub Valley and foothill grassland
<i>Helminthoglypta coelata</i>	mesa shoulderband	IMGASC2530	3	G1	S1	None	None		IUCN_VU-Vulnerable	Coastal bluff scrub
<i>Hesperocyparis forbesii</i>	Tecate cypress	PGCUP040C0	25	G2	S1.1	None	None	1B.1	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Closed-cone coniferous forest
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	beach goldenaster	PDAST4V0K2	13	G4T2T3	S2.1?	None	None	1B.1		Chaparral Coastal dunes Coastal scrub
<i>Horkelia truncata</i>	Ramona horkelia	PDROS0W0G0	31	G3	S2.3	None	None	1B.3	USFS_S-Sensitive	Chaparral Cismontane woodland
<i>Icteria virens</i>	yellow-breasted chat	ABPBX24010	84	G5	S3	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern	Riparian forest Riparian scrub Riparian woodland
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	PDAST57091	9	G3G5T2T3	S2.2	None	None	1B.2		Coastal scrub
<i>Iva hayesiana</i>	San Diego marsh-elder	PDAST580A0	58	G3?	S2.2?	None	None	2.2		Alkali playa Marsh and swamp Wetland
<i>Ixobrychus exilis</i>	least bittern	ABNGA02010	9	G5	S1	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Marsh and swamp Wetland
<i>Lasionycteris noctivagans</i>	silver-haired bat	AMACC02010	138	G5	S3S4	None	None		IUCN_LC-Least Concern WBWG_M-Medium Priority	Lower montane coniferous forest Oldgrowth Riparian forest
<i>Lasiurus blossevillii</i>	western red bat	AMACC05060	119	G5	S3?	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Cismontane woodland Lower montane coniferous forest Riparian forest Riparian woodland
<i>Lasiurus cinereus</i>	hoary bat	AMACC05030	235	G5	S4?	None	None		IUCN_LC-Least Concern WBWG_M-Medium Priority	Broadleaved upland forest Cismontane woodland Lower montane coniferous forest North coast coniferous forest
<i>Lasiurus xanthinus</i>	western yellow bat	AMACC05070	57	G5	S3	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	Desert wash

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<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	PDAST5L0A1	87	G4T3	S2.1	None	None	1B.1	BLM_S-Sensitive	Alkali playa Marsh and swamp Salt marsh Valley and foothill grassland Vernal pool Wetland
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ABNME03041	236	G4T1	S1	None	Threatened		ABC_WLBCC -Watch List of Birds of Conservation Concern BLM_S-Sensitive DFG_FP-Fully Protected IUCN_NT-Near Threatened USFWS_BCC -Birds of Conservation Concern	Brackish marsh Freshwater marsh Marsh and swamp Salt marsh Wetland
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	PDLAM0V020	18	G2	S2.2	None	None	1B.2	USFS_S-Sensitive	Chaparral Cismontane woodland Closed-cone coniferous forest
<i>Lepechinia ganderi</i>	Gander's pitcher sage	PDLAM0V040	16	G2	S2.2	None	None	1B.3	BLM_S-Sensitive	Chaparral Closed-cone coniferous forest Coastal scrub Valley and foothill grassland
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	PDBRA1M114	53	G5T2?	S2.2	None	None	1B.2		Chaparral Coastal scrub
<i>Leptosyne maritima</i>	sea dahlia	PDAST2L0L0	27	G3	S2.2	None	None	2.2		Coastal bluff scrub Coastal scrub
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	AMAEB03051	96	G5T3?	S3?	None	None		DFG_SSC-Species of Special Concern	Coastal scrub
<i>Lotus nuttallianus</i>	Nuttall's lotus	PDFAB2A0V0	36	G1	S1.1	None	None	1B.1		Coastal dunes Coastal scrub
<i>Lycaena hermes</i>	Hermes copper butterfly	IILEPC1160	18	G1G2	S1S2	None	None		IUCN_VU-Vulnerable	Chaparral Coastal scrub
Maritime Succulent Scrub	Maritime Succulent Scrub	CTT32400CA	10	G2	S1.1	None	None			Coastal scrub
<i>Melitta californica</i>	A mellitid bee	IIHYM74010	5	G4?	S2?	None	None			
<i>Mobergia calculiformis</i>	light gray lichen	NLT0018660	1	G1	S1.1	None	None			Coastal scrub
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	PDLAM180A2	43	G4T2	S2.2	None	None	1B.2	USFS_S-Sensitive	Chaparral Cismontane woodland
<i>Monardella viminea</i>	willowy monardella	PDLAM180D4	21	G2	S2.1	Endangered	Endangered	1B.1		Chaparral Coastal scrub Riparian forest Riparian scrub Riparian woodland
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mouseltail	PDRAN0H031	24	G5T2Q	S2.2	None	None	3.1		Vernal pool Wetland
<i>Myotis ciliolabrum</i>	western small-footed myotis	AMACC01140	81	G5	S2S3	None	None		BLM_S-Sensitive IUCN_LC-Least Concern WBWG_M-	

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ScientificName	CommonName	ElementCode	OccCount	GlobalRank	StateRank	FederalListingStatus	StateListingStatus	CNPSList	OtherStatus	Habitat
Myotis evotis	long-eared myotis	AMACC01070	107	G5	S4?	None	None		Medium Priority BLM_S-Sensitive IUCN_LC-Least Concern WBWG_M-Medium Priority	
Myotis yumanensis	Yuma myotis	AMACC01020	256	G5	S4?	None	None		BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	Lower montane coniferous forest Riparian forest Riparian woodland Upper montane coniferous forest
Nama stenocarpum	mud nama	PDHYD0A0H0	22	G4G5	S1S2	None	None	2.2		Marsh and swamp Wetland
Navarretia fossalis	spreading navarretia	PDPLM0C080	65	G1	S1	Threatened	None	1B.1		Alkali playa Chenopod scrub Marsh and swamp Vernal pool Wetland
Navarretia prostrata	prostrate vernal pool navarretia	PDPLM0C0Q0	60	G2?	S2.1?	None	None	1B.1		Coastal scrub Valley and foothill grassland Vernal pool Wetland
Nemacaulis denudata var. denudata	coast woolly-heads	PDPGN0G011	23	G3G4T3?	S2.2	None	None	1B.2		Coastal dunes
Nemacaulis denudata var. gracilis	slender cottonheads	PDPGN0G012	20	G3G4T3?	S2	None	None	2.2		Coastal dunes Desert dunes Sonoran desert scrub
Neotoma lepida intermedia	San Diego desert woodrat	AMAFF08041	115	G5T3?	S3?	None	None		DFG_SSC-Species of Special Concern	Coastal scrub
Nyctinomops femorosaccus	pocketed free-tailed bat	AMACD04010	90	G4	S2S3	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_M-Medium Priority	Joshua tree woodland Pinon and juniper woodlands Riparian scrub Sonoran desert scrub
Nyctinomops macrotis	big free-tailed bat	AMACD04020	32	G5	S2	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH-Medium-High Priority	
Opuntia californica var. californica	snake cholla	PDCAC0D2Y1	17	G3T2	S1.1	None	None	1B.1		Chaparral Coastal scrub
Orcuttia californica	California Orcutt grass	PMPOA4G010	37	G2	S2.1	Endangered	Endangered	1B.1		Vernal pool Wetland
Orobanche parishii ssp. brachyloba	short-lobed broomrape	PDORO040A2	26	G4?T3	S3.2	None	None	4.2		Coastal bluff scrub Coastal dunes Coastal scrub
Packera ganderi	Gander's ragwort	PDAST8H1F0	14	G2	S2.2	None	Rare	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Ultramafic

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<i>Pandion haliaetus</i>	osprey	ABNKC01010	482	G5	S3	None	None		CDF_S-Sensitive DFG_WL-Watch List IUCN_LC-Least Concern	Riparian forest
<i>Panoquina errans</i>	wandering (=saltmarsh) skipper	IILEP84030	12	G4G5	S1	None	None		IUCN_NT-Near Threatened	Marsh and swamp Wetland
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	ABPBX99015	36	G5T3	S3	None	Endangered			Marsh and swamp Wetland
<i>Pelecanus occidentalis californicus</i>	California brown pelican	ABNFC01021	16	G4T3	S1S2	Delisted	Delisted		BLM_S-Sensitive DFG_FP-Fully Protected	
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	AMAFD01042	13	G5T1	S1	Endangered	None		DFG_SSC-Species of Special Concern	Coastal scrub
<i>Phacelia stellaris</i>	Brand's star phacelia	PDHYD0C510	10	G2?	S1	Candidate	None	1B.1		Coastal dunes Coastal scrub
<i>Phalacrocorax auritus</i>	double-crested cormorant	ABNFD01020	37	G5	S3	None	None		DFG_WL-Watch List IUCN_LC-Least Concern	Riparian forest Riparian scrub Riparian woodland
<i>Phrynosoma blainvillii</i>	coast horned lizard	ARACF12100	658	G4G5	S3S4	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub Desert wash Pinon and juniper woodlands Riparian scrub Riparian woodland Valley and foothill grassland
<i>Pinus torreyana ssp. torreyana</i>	torrey pine	PGPIN04152	3	G1T1	S1.2	None	None	1B.2		Chaparral Closed-cone coniferous forest
<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	ARACH01114	33	G5T2T3Q	S1S2	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern	Chaparral Cismontane woodland Pinon and juniper woodlands
<i>Pogogyne abramsii</i>	San Diego mesa mint	PDLAM1K010	42	G2	S2.1	Endangered	Endangered	1B.1		Vernal pool Wetland
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	PDLAM1K040	14	G1	S1.1	Endangered	Endangered	1B.1		Vernal pool Wetland
<i>Polioptila californica californica</i>	coastal California gnatcatcher	ABPBJ08081	800	G3T2	S2	Threatened	None		ABC_WLBCC-Watch List of Birds of Conservation Concern DFG_SSC-Species of Special Concern	Coastal bluff scrub Coastal scrub
<i>Quercus dumosa</i>	Nuttall's scrub oak	PDFAG050D0	97	G1G2	S1.1	None	None	1B.1	USFS_S-Sensitive	Chaparral Closed-cone coniferous forest Coastal scrub
<i>Rallus longirostris levipes</i>	light-footed clapper rail	ABNME05014	30	G5T1T2	S1	Endangered	Endangered		ABC_WLBCC-Watch List of Birds of Conservation Concern DFG_FP-Fully Protected	Marsh and swamp Salt marsh Wetland

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ScientificName	CommonName	ElementCode	OccCount	GlobalRank	StateRank	FederalListingStatus	StateListingStatus	CNPSList	OtherStatus	Habitat
Salvadora hexalepis virgultea	coast patch-nosed snake	ARADB30033	22	G5T3	S2S3	None	None		DFG_SSC-Species of Special Concern	Coastal scrub
Salvia munzii	Munz's sage	PDLAM1S140	27	G3	S2.2	None	None	2.2		Chaparral Coastal scrub
San Diego Mesa Claypan Vernal Pool	San Diego Mesa Claypan Vernal Pool	CTT44322CA	19	G2	S2.1	None	None			Vernal pool Wetland
San Diego Mesa Hardpan Vernal Pool	San Diego Mesa Hardpan Vernal Pool	CTT44321CA	38	G2	S2.1	None	None			Vernal pool Wetland
Satureja chandleri	San Miguel savory	PDLAM08030	21	G2	S2	None	None	1B.2	USFS_S-Sensitive	Chaparral Cismontane woodland Coastal scrub Riparian woodland Ultramafic Valley and foothill grassland
Senecio aphanactis	chaparral ragwort	PDAST8H060	35	G3?	S1.2	None	None	2.2		Cismontane woodland Coastal scrub
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	CTT61310CA	246	G4	S4	None	None			Riparian forest
Southern Coastal Salt Marsh	Southern Coastal Salt Marsh	CTT52120CA	24	G2	S2.1	None	None			Marsh and swamp Wetland
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	CTT61330CA	111	G3	S3.2	None	None			Riparian forest
Southern Interior Cypress Forest	Southern Interior Cypress Forest	CTT83230CA	24	G2	S2.1	None	None			Closed-cone coniferous forest
Southern Maritime Chaparral	Southern Maritime Chaparral	CTT37C30CA	26	G1	S1.1	None	None			Chaparral
Southern Riparian Forest	Southern Riparian Forest	CTT61300CA	20	G4	S4	None	None			Riparian forest
Southern Riparian Scrub	Southern Riparian Scrub	CTT63300CA	56	G3	S3.2	None	None			Riparian scrub
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	CTT62400CA	230	G4	S4	None	None			Riparian woodland
Spea hammondii	western spadefoot	AAABF02020	408	G3	S3	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_NT-Near Threatened	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pool Wetland
Sphaerocarpos drewei	bottle liverwort	NBHEP35030	3	G1	S1	None	None	1B.1	USFS_S-Sensitive	Chaparral Coastal scrub
Stemodia durantifolia	purple stemodia	PDSCR1U010	19	G5	S2.1?	None	None	2.1		Sonoran desert scrub
Sternula antillarum browni	California least tern	ABNNM08103	67	G4T2T3Q	S2S3	Endangered	Endangered		ABC_WLBCC-Watch List of Birds of Conservation Concern DFG_FP-Fully Protected	Alkali playa Wetland
Streptanthus bernardinus	Laguna Mountains jewel-flower	PDBRA2G060	22	G3	S3.3	None	None	4.3	USFS_S-Sensitive	Chaparral Lower montane coniferous forest Upper montane coniferous forest

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ScientificName	CommonName	ElementCode	OccCount	GlobalRank	StateRank	FederalListingStatus	StateListingStatus	CNPSList	OtherStatus	Habitat
Streptocephalus woottoni	Riverside fairy shrimp	ICBRA07010	25	G1	S1	Endangered	None		IUCN_EN-Endangered	Coastal scrub Valley and foothill grassland Vernal pool Wetland
Stylocline citroleum	oil neststraw	PDAST8Y070	79	G2	S2	None	None	1B.1	BLM_S-Sensitive	Chenopod scrub Coastal scrub
Suaeda esteroa	estuary seablite	PDCHE0P0D0	23	G3	S2	None	None	1B.2		Marsh and swamp Salt marsh Wetland
Taxidea taxus	American badger	AMAJF04010	454	G5	S4	None	None		DFG_SSC-Species of Special Concern IUCN_LC-Least Concern	Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog and fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes Ione formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh and swamp Meadow and seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper

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ScientificName	CommonName	ElementCode	OccCount	GlobalRank	StateRank	FederalListingStatus	StateListingStatus	CNPSList	OtherStatus	Habitat
Tetracoccus dioicus	Parry's tetracoccus	PDEUP1C010	46	G3	S2.2	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Sonoran scrub Valley and foothill grassland Chaparral Coastal scrub Ultramafic
Texosporium sancti-jacobi	woven-spored lichen	NLTEST7980	19	G3	S1.1	None	None			Chaparral
Thamnophis hammondi	two-striped garter snake	ARADB36160	143	G3	S2	None	None		BLM_S-Sensitive DFG_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	Marsh and swamp Riparian scrub Riparian woodland Wetland
Torrey Pine Forest	Torrey Pine Forest	CTT83140CA	3	G1	S1.1	None	None			Closed-cone coniferous forest
Triquetrella californica	coastal triquetrella	NBMUS7S010	11	G1	S1	None	None	1B.2	USFS_S-Sensitive	Coastal bluff scrub Coastal scrub Valley and foothill grassland
Tryonia imitator	mimic tryonia (=California brackishwater snail)	IMGASJ7040	34	G2G3	S2S3	None	None		IUCN_DD-Data Deficient	Aquatic Brackish marsh Estuary Lagoon Marsh and swamp Salt marsh Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	CTT42110CA	45	G3	S3.1	None	None			Valley and foothill grassland
Vireo bellii pusillus	least Bell's vireo	ABPBW01114	232	G5T2	S2	Endangered	Endangered		ABC_WLBCC-Watch List of Birds of Conservation Concern IUCN_NT-Near Threatened	Riparian forest Riparian scrub Riparian woodland

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**ATTACHMENT B.3
SPECIES TABLES**

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Table 1: Special Status Plant Species Table (USFWS, CDFG, CNPS, San Diego County MSCP (SDC MSCP))

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Acanthomintha ilicifolia</i>	San Diego thorn-mint	FT	SE	1B.1	List A	Grassy openings in the chaparral or sage scrub with friable or broken clay soils associated with Las Posas or San Miguel-Exchequer soils. Known Elevation Limits: 10 to 960 meters.	Annual herb	Apr to Jun	Not Likely to Occur. Recorded within 3 miles southwest of the site. No suitable soils present onsite. Not observed during focused plant surveys.
<i>Adolphia californica</i>	San Diego adolphia	None	None	2.1	List B	Occurs in chaparral, coastal scrub, and valley and foothill grassland areas. Is usually associated with Eriogonum fasciculatum and Artemisia californica in xeric locales where shrub canopy reaches four or five feet in height. Known Elevation Limits: 45 to 740 meters.	Deciduous shrub	Dec to May	High potential to occur. Recorded within 3 miles of the site. Suitable coastal scrub and grassland habitat occurs on the Project site.
<i>Agave shawii</i>	Shaw's agave	None	None	2.1	List B	Coastal bluff scrub Coastal scrub. Is known to occur at Border Field in Marina coarse loamy sand Known Elevation Limits: 10 to 75 meters.	Perennial leaf succulent	Sep to May	Not Likely to Occur. Recorded over 14 miles west of the site. Project site is outside of the elevation range for this species. Marginally suitable habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Ambrosia chenopodiifolia</i>	San Diego bur-sage	None	None	2.1	List B	Grows with <i>Artemisia californica</i> and <i>Salvia mellifera</i> in a low-growing, fairly open Coastal scrub. Known Elevation Limits: 55 to 155 meters.	Perennial shrub	Apr to Jun	Not Likely to Occur. Recorded over 14 miles south of the site. Project site is outside of the range for this species. Marginally suitable habitat occurs within the project site. Not observed during focused plant survey.
<i>Ambrosia monogyra</i>	Singlewhorl burrobrush	None	None	2.2e	n/a	Washes and dry riverbeds near chaparral and Sonoran desert scrub with sandy soils. Known Elevation Limits: 10 to 500 meters.	Perennial shrub	Aug to Nov	Not Likely to Occur. Recorded over 4 miles west of the site. No sandy wash habitat occurs within the project site. Not observed during focused plant survey.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE	None	1B.1	List A	Occurs in chaparral, coastal scrub, and valley and foothill grassland, vernal pools. Often found in disturbed areas and sometimes in alkaline soils. Known Elevation Limits: 20 to 415 meters.	Rhizomatous herb	May to Oct	Moderate potential to occur. Recorded within 1 mile south of the site. Marginal coastal scrub and grassland habitat occurs onsite. No alkaline soils on Project site. Not observed during focused plant survey.
<i>Aphanisma blitoides</i>	Aphanisma	None	None	1B.2	List A	Coastal bluffs near the ocean and beach dunes. Known Elevation Limits: 1 to 305 meters.	Annual herb	Mar to Jun	Not Likely to Occur. Recorded over 9 miles southwest of the site. No suitable soils present onsite.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	FE	None	1B.1	List A	Occurs in maritime chaparral with <i>Adenostoma fasciculatum</i> and often <i>Ceanothus verrucosus</i> with sandy soils. Elevation Limits: 0 to 365 meters.	Perennial evergreen shrub	Dec to Jun	Not Likely to Occur. Recorded over 1 mile southwest of the site. No suitable habitat or sandy soils occur onsite.
<i>Arctostaphylos otayensis</i>	Otay manzanita	None	None	1B.2	List A	This species grows in chaparral on metavolcanic peaks. Known Elevation Limits: 275 to 1700 meters.	Perennial evergreen shrub	Jan to Apr	Not Likely to Occur. Recorded over 10 miles south of the site. Project site is outside of the range for this species. No suitable metavolcanic soil habitat occurs within the project site.
<i>Artemisia palmeri</i>	San Diego sagewort	None	None	4.2	List D	Occurs in sandy mesic areas within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodlands along creeks and drainages near the coast. Known Elevation Limits: 16 to 1,000 meters.	Perennial deciduous shrub	Feb to Sep	Low Potential to occur. No record of the species within 5 miles of the site. No suitable sandy soils occur within the Project site. Not observed during focused plant surveys.
<i>Astragalus deanei</i>	Dean's milk-vetch	None	None	1B.1	List A	Occurs in Diegan Sage Scrub, chaparral, and sandy washes with Cieneba-Fallbrook rocky sandy loam. Known Elevation Limits: 75 to 695 meters	Perennial shrub	Feb to May	Not Likely to Occur. Recorded over 8 miles southeast of the site. Project site is outside of the range for this species. No suitable soil occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Astragalus tener</i> var. <i>titi</i>	Coastal dunes milk-vetch	FE	SE	1B.1	List A	Occurs in coastal dunes. Known Elevation Limits: 1 to 50 meters.	Annual herb	Mar to May	Not Likely to Occur. Recorded over 13 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Atriplex coulteri</i>	Coulter's saltbush	None	None	1B.2	List A	Occurs in sea-bluff habitat. Known Elevation Limits: 3 to 460 meters.	Perennial herb	Mar to Oct	Not Likely to Occur. Recorded over 7 miles north of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Atriplex pacifica</i>	South Coast saltscale	None	None	1B.2	List A	Commonly associated with Linne clay loam and Huerhuero-urban land complex open Diegan Sage Scrub dominated by <i>Artemisia californica</i> . Known Elevation Limits: 0 to 140 meters	Annual herb	Mar to Oct	Not Likely to Occur. Recorded over 11 miles northwest of the site. Project site is outside of the range for this species. No suitable soil occurs within the project site. Not observed during focused surveys.
<i>Atriplex serenana</i> var. <i>davisonii</i>	Davidson's saltscale	None	None	1B.2	List A	Commonly found on coastal bluff scrub, coastal scrub with alkaline conditions. Known Elevation Limits: 10 to 200 meters	Annual herb	Apr to Oct	Not Likely to Occur. Recorded over 11 miles southwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Baccharis vanessae</i>	Encinitas baccharis	FT	SE	1B.1	List A	Occurs in chaparral dominated by <i>Adenostoma fasciculatum</i> with <i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> growing nearby along with <i>Xylococcus bicolor</i> and <i>Yucca schidigera</i> . Known Elevation Limits: 60 to 720 meters.	Perennial deciduous shrub	Aug to Nov	Not Likely to Occur. Recorded over 6 miles northwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Three of the four indicator plants do not occur onsite.
<i>Berberis nevini</i>	Nevin's barberry	FE	SE	1B.1	List A	Occurs in chaparral with strong desert affinities Known Elevation Limits: 274 to 825 meters.	Perennial evergreen shrub	Mar to Jun	Not Likely to Occur. Recorded over 13 miles west of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Bergerocactus emoryi</i>	Golden-spined cereus	None	None	2.2	List B	Maritime Succulent Scrub Known Elevation Limits: 3 to 395 meters.	Perennial stem succulent	May to Jun	Not Likely to Occur. Recorded over 12 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None	None	1B.1	List A	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitats in clay soils. Known Elevation Limits: 50 to 465 meters	Bulbiferous herb	Apr to May	High potential to occur. Recorded within 1 mile of the site. Suitable coastal scrub and grassland habitat occurs on Project site. Not observed during focused plant surveys.
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	FT	SE	1B.1	List A	Vernally moist grasslands and the periphery of vernal pools. <i>Sisyrinchium bellum</i> and <i>Nassella pulchra</i> may grow nearby. Known Elevation Limits: 25 to 1,219 meters	Bulbiferous herb	Mar to Jun	Not Likely to Occur. Recorded over 10 miles north of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Not observed during focused plant surveys.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None	None	1B.1	List A	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools in mesic environments supported by clay and sometimes serpentine soils. Known Elevation Limits: 30 to 1,692 meters	Bulbiferous herb	May to Jul	Moderate potential to occur. Record of this species within 2 miles of the site. Marginal quality habitat occurs within the Project site. Not observed during focused plant surveys.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Calochortus dunnii</i>	Dunn's mariposa-lily	None	Rare	1B.2	List A	Rocky openings in chaparral or grassland/chaparral ecotone are the preferred habitat of this species. Known Elevation Limits: 185 to 1,830 meters.	Perennial bulbiferous herb	Apr to Jun	Not Likely to Occur. Recorded over 10 miles southeast of the site. Project site is outside of the range for this species. Marginal suitable habitat occurs within the project site.
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	None	None	1B.2	List A	Occurs in a dense, almost impenetrable chaparral with a mix of Chamise and other shrubs such as manzanita. Known Elevation Limits: 235 to 755 meters,	Perennial evergreen shrub	Apr to Jun	Not Likely to Occur. Recorded over 5 miles east and west of the site. Project site is near the elevation range for this species. No suitable habitat occurs within the project site.
<i>Ceanothus otayensis</i>	Otay Mountain ceanothus	None	None	1B.2	n/a	This shrub grows in a xeric Chamise Chaparral on restricted to metavolcanic and gabbroic peaks. Elevation Limits: 600 to 1,100 meters	Perennial evergreen shrub	Jan to Apr	Not Likely to Occur. Recorded over 11 miles south of the site. Project site is outside of the elevation range for this species. No suitable metavolcanic or gabbroic soil habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Ceanothus verrucosus</i>	Wart-stemmed ceanothus	None	None	2.2	List B	Coastal Chaparral intermixed with Chamise and Mission Manzanita. Elevation Limits: 1 to 380 meters.	Perennial evergreen shrub	Dec to May	Not Likely to Occur. Recorded over 6 miles west of the site. Project site is outside of the range for this species. No suitable chamise and mission manzanita habitat occurs within the project site. Not observed during focused plant survey.
<i>Centromadia parryi</i> ssp. <i>australis</i>	Southern tarplant	None	None	1B.2	List A	Marshes, swamps, valley and foothill grassland and vernal pools. Elevation Limits: 0 to 425 meters	Annual herb	May to Nov	Not Likely to Occur. Recorded over 12 miles northwest of the site. No suitable marsh habitat occurs within the project site. Not observed during focused plant surveys.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	Smooth tarplant	None	None	1B.1	List A	Chenopod scrub, Marshes, swamps, valley and foothill grassland and vernal pools. Elevation Limits: 0 to 640 meters.	Annual herb	Apr to Sep	Not Likely to Occur. Recorded over 2 miles east of the site. No suitable marsh habitat occurs within the project site. Not observed during focused plant surveys.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None	None	1B.1	List A	Coastal bluff scrub, coastal dunes Elevation Limits: 0 to 100 meters.	Annual herb	Jan to Aug	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Salt marsh bird's-beak	FE	SE	1B.1	n/a	Coastal dunes, marshes and swamps. Elevation Limits: 0 to 30 meters.	Annual herb, hemiparasitic	May to Oct	Not Likely to Occur. Recorded over 14 miles south of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	FE	SE	1B.1	List A	Coastal Chaparral openings in Chamise, with a distinctive loose sandy substrate. Elevation Limits: 3 to 125 meters.	Annual herb	Mar to May	Not Likely to Occur. Recorded over 7 miles west of the site. Project site is near the lower elevation range for this species. No suitable loose sandy soil habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined spineflower	None	None	1B.2	List A	This small annual is typically found on clay lenses, which are largely devoid of shrubs. It can be occasionally seen on the periphery of vernal pool habitat and even on the periphery of montane meadows near vernal seeps. Elevation Limits: 30 to 1,530 meters.	Annual herb	Apr to Jun	Not Likely to Occur. Recorded over 3 miles west of the site. No suitable clay lens habitat occurs within the project site.
<i>Clarkia delicata</i>	Delicate clarkia	None	None	1B.2	List A	Commonly occur along the periphery of oak woodlands and cismontane chaparral. Elevation Limits: 235 to 1,000 meters.	Perennial herb	Feb to Jun	Not Likely to Occur. Recorded over 6 miles northeast of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Summer holly	None	None	1B.2	List A	Southern Mixed Chaparral, usually on mesic north-facing slopes. Elevation Limits: 30 to 790 meters.	Perennial evergreen shrub	Apr to Jun	Not Likely to Occur. Recorded over 2 miles west of the site. No suitable southern mixed chaparral on north-facing slopes occurs within the project site. Not observed during focused plant surveys.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None	None	1B.1	List A	Coastal bluff scrub, chaparral, and coastal scrub. Elevation Limits: 3 to 115 meters.	Perennial herb	Jun to Sep	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is above the elevation range for this species. Marginally suitable habitat occurs within the project site. Not observed during focused plant surveys.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar sand aster	None	None	1B.1	List A	Coastal bluff scrub, chaparral (Maritime), and coastal scrub. Elevation Limits: 15 to 150 meters.	Perennial herb	May to Sep	Not Likely to Occur. Recorded over 8 miles northwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Deinandra conjugens</i>	Otay tarplant	FT	SE	1B.1	List A	Occurs in open coastal scrub, valley, and foothill grassland with fractured clay soils. Elevation Limits: 25 to 300 meters.	Annual herb	May to Jun	Not Likely to Occur. Recorded over 8 miles south of the site. Project site is north of the known range for this species. No suitable fractured clay soil habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Dicranostegia orcuttiana</i>	Orcutt's bird's-beak	None	None	2.1	n/a	Seasonally dry drainages and upland adjacent to riparian habitat. Elevation Limits: 10 to 350 meters.	Annual herb hemiparasitic	Apr to Jun	Not Likely to Occur. Recorded over 17 miles south of the site. Project site is outside of the range for this species. Marginally suitable habitat occurs within the project site. Not observed during surveys.
<i>Dudleya brevifolia</i>	Short-leaved dudleya	None	SE	1B.1	List A	Open areas of Chamise Chaparral on Torrey sandstone with soils mapped as Carlsbad gravelly loamy sand. Known Elevation Limits: 30 to 250 meters.	Perennial herb	Apr to May	Not Likely to Occur. Recorded over 10 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Dudleya variegata</i>	Variegated dudleya	None	None	1B.2	List A	Clay habitat within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools. Known Elevation Limits: 3 to 580 meters.	Perennial herb	Apr to Jun	Present. This species was observed within the Diegan sage scrub along the ridgeline near the transmission line ROW.
<i>Dudleya viscida</i>	sticky dudleya	None	None	1B.2	List A	Coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub in rocky soils. Known Elevation Limits: 10 to 550 meters.	Perennial herb	May to Jun	Not Likely to Occur. Recorded over 14 miles southwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Ericameria palmeri</i> var. <i>palmeri</i>	Palmer's goldenbush	None	None	1B.1	List A	This sizeable shrub grows along coastal drainages, in mesic chaparral sites, or rarely in Diegan Sage Scrub. Known Elevation Limits: 30 to 600 meters.	Perennial evergreen shrub	Sep to Nov.	Moderate potential to occur. No record of this species within 5 miles of the site. Marginal quality habitat occurs within the Project site. Not observed during focused plant surveys.
<i>Eryngium aristulatum parishii</i>	San Diego button-celery	FE	SE	1B.1	List A	Vernal Pools or mima mound areas with vernal moist conditions. Known Elevation Limits: 20 to 620 meters.	Annual/perennial herb	Apr to Jun	Not likely to occur. No record of the species within 5 miles of the site. No suitable habitat occurs within the Project site. Not observed during focused plant surveys.
<i>Erysimum ammophilum</i>	Sand-loving wallflower	None	None	1B.2	n/a	Old eroded dunes well back of the existing beachline, and sandy locales in chaparral openings. Known Elevation Limits: 0 to 60 meters.	Perennial herb	Feb to Jun	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Not observed during focused plant surveys.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Euphorbia misera</i>	Cliff spurge	None	None	2.2	List B	Occurs in Maritime Sage Scrub with a high incidence of cactus. Elevation Limits: 10 to 500 meters.	Perennial herb	Dec to Aug	Not Likely to Occur. Recorded over 12 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None	None	2.1	List B	Occurs in chaparral, coastal scrub, valley, and foothill grassland habitats. Known Elevation Limits: 3 to 450 meters.	Perennial stem succulent	May to Jun.	Present. This species was observed within the Diegan sage scrub within the Project site.
<i>Frankenia palmeri</i>	Palmer's frankenia	None	None	2.1	List B	This low-growing shrub occurs on the periphery of Salt Marsh. Known Elevation Limits: 0 to 10 meters.	Perennial herb	May to Jul	Not Likely to Occur. Recorded over 14 miles southwest of the site. Project site is outside of the range for this species. No suitable salt marsh habitat occurs within the project site.
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	FE	SR	1B.1	List A	Closed Cone Coniferous Forest and Southern Mixed Chaparral. Known Elevation Limits: 10 to 716 meters.	Perennial evergreen shrub	Mar to Jun	Not Likely to Occur. Recorded over 10 miles southeast of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Galium proliferum</i>	Desert bedstraw	None	None	2.2	n/a	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland. Elevation Limits: 1,190 to 1,570 meters.	Annual herb	Apr to Jun	Not Likely to Occur. Recorded over 12 miles south of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Geothallus tuberosus</i>	Campbell's liverwort	None	None	1B.1	n/a	Coastal Scrub and vernal pools. Elevation Limits: 10 to 600 meters.	Ephemeral liverwort	n/a	Not Likely to Occur. Recorded over 6 miles northwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Githopsis diffusa</i> <i>ssp. filicaulis</i>	Mission Canyon bluecup	None	None	3.1	n/a	Isolated, sandy openings in chaparral. Elevation Limits: 450 to 750 meters.	Annual herb	Apr to Jun	Not Likely to Occur. Recorded over 9 miles northeast of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Grindelia hallii</i>	Hall's gum plant	None	None	1B.1	List A	Chaparral, lower montane coniferous forest, meadows and seeps, and valley and foothill grasslands. Elevation Limits: 185 to 1745 meters.	Perennial herb	Jul to Oct	Not Likely to Occur. Recorded over 22 miles east of the site. Project site is outside of the range for this species. Marginally suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	None	None	4.2	List D	Clay vertisols with open grassy slopes or open Diegan Sage Scrub. Elevation Limits: 20 to 955 meters.	Annual herb	Mar to May	Not Likely to Occur. Recorded over 2 miles east of the site. No suitable clay vertisol habitat occurs within the project site. Not observed during focused plant surveys.
<i>Hesperocyparus forbesii</i>	Tecate cypress	None	None	1B.1	n/a	Clay, gabbroic or metavolcanic soils in closed cone coniferous forest and chaparral. Known Elevation Limits: 80 to 1,500 meters.	Perennial evergreen tree	n/a	Not Likely to Occur. Recorded over 17 miles south of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	Beach goldenaster	None	None	1B.1	n/a	Coastal Sage Scrub in sandy locales, coastal dunes, and chaparral. Known Elevation Limits: 0 to 1,225 meters.	Perennial herb	Mar to Dec	Not Likely to Occur. Recorded over 10 miles southwest of the site. No suitable sandy soils present onsite.
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	Graceful tarplant	None	None	4.2	List D	Occurs in annual and perennial grasslands. Known Elevation Limits: 60 to 1,100 meters.	Annual herb	May to Nov.	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs on the Project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Horkelia truncata</i>	Ramona horkelia	None	None	1B.3	List A	Occurs in clay and gabbroic soils in chaparral and cismontane woodlands. Known Elevation Limits: 400 to 1,300 meters.	Perennial herb	May to Jun	Not Likely to Occur. Recorded over 8 miles northeast of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	Decumbent goldenbush	None	None	1B.2	List A	Occurs in chaparral and coastal scrub, often in disturbed areas with sanding soils. Known Elevation Limits: 10 to 135 meters.	Perennial shrub	Apr to Nov	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs on the Project site.
<i>Iva hayesiana</i>	San Diego marsh-elder	None	None	2.2	List B	Creeks or intermittent streambeds are the preferred habitat. Known Elevation Limits: 10 to 500 meters.	Perennial herb	Apr to Oct	Not Likely to Occur. Recorded over 4 miles south of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Not observed during focused plant surveys.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None	None	1B.1	List A	This species occurs in tidal marsh areas near the coast at the extreme upper end of tidal inundation. Elevation Limits: 1 to 1,220 meters.	Annual herb	Feb to Jun	Not Likely to Occur. Recorded over 8 miles south of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Lepechinia cardiophylla</i>	Heart-leaved pitcher sage	None	None	1B.2	List A	Occurs in closed-cone coniferous forest, openings in chaparral, and cismontane woodland habitats. Metavolcanic soils. Known Elevation Limits: 520 to 1,370 meters.	Shrub	Apr to June	Present. The species was observed adjacent to the emergent wetland area in the central portion of the biological survey area.
<i>Lepechinia ganderi</i>	Gander's pitcher sage	None	None	1B.3	List A	This plant is restricted to metavolcanic derived soils in chaparral. The preferred soil type is San Miguel-Exchequer rocky silt loams. Known Elevation Limits: 305 to 1,005 meters.	Perennial shrub	Jun to Jul	Not Likely to Occur. Recorded over 11 miles southeast of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None	None	1B.2	List A	The species occurs in chaparral and coastal scrub habitats on dry soils. Known Elevation Limits: 1 to 885 meters.	Annual herb	Jan to Jul	Low potential to occur. No record of the species within 5 miles north of the site. Marginally suitable habitat occurs on the Project site. Not observed during the focused plant survey

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Leptosyne maritima</i>	Sea dahlia	None	None	2.2	n/a	Occurs in Coastal bluff scrub and coastal scrub. Known Elevation Limits: 5 to 150 meters.	Perennial herb	Mar to May	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is at the lower elevation range for this species. No suitable habitat occurs within the project site.
<i>Lotus nuttallianus</i>	Nuttall's lotus	None	None	1B.1	List A	Coastal Dunes, particularly well protected back dunes with minimal human foot traffic. Known Elevation Limits: 0 to 10 meters.	Annual herb	May to Jun	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Mobergia calculiformis</i>	Light gray lichen	None	None	n/a	n/a	Occurs in coastal sage scrub as the dominant lichen on volcanic rocks	Lichen	n/a	Not Likely to Occur. Recorded over 11 miles southwest of the site. Project site is outside of the range for this species. No suitable volcanic rocks occur within the project site. Not observed during focused plant survey.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	Felt-leaved monardella	None	None	1B.2	List A	Southern mixed chaparral understory. Known Elevation Limits: 300 to 1,575 meters.	Perennial rhizomatous herb	Jun to Aug	Not Likely to Occur. Recorded over 7 miles northeast of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Monardella viminea</i>	Willowy monardella	FE	SE	1B.1	List A	Riparian scrub, usually at sandy locales in seasonally dry washes. Known Elevation Limits: 380 to 1,700 meters.	Perennial herb	June to Aug.	Present. The species was observed adjacent to the drainage feature in the northwestern portion of the Project site.
<i>Myosurus minimus</i> ssp. <i>apus</i>	Little mousetail	None	None	3.1	List C	This species occurs in vernal pools. Elevation Limits: 20 to 640 meters.	Annual herb	Mar to Jun	Not Likely to Occur. Recorded over 5 miles southwest of the site. No suitable habitat occurs within the project site.
<i>Nama stenocarpum</i>	Mud nama	None	None	2.2	List B	This tiny annual herb grows on the muddy embankments of ponds and lakes. Elevation Limits: 5 to 500 meters.	Annual/ Perennial herb	Jan to Jul	Not Likely to Occur. Recorded over 10 miles south of the site. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Navarretia fossalis</i>	Spreading navarretia	Threatened	None	1B.1	List A	This species occurs in vernal pools and vernal swales. Elevation Limits: 30 to 655 meters.	Annual herb	Apr to Jun	Not Likely to Occur. Recorded over 5 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Navarretia prostrata</i>	Prostrate vernal pool navarretia	None	None	1B.1	List A	This species occurs in vernal pools and meadows and seeps. Elevation Limits: 15 to 1,210 meters.	Annual herb	Apr to Jul	Not Likely to Occur. Recorded over 5 miles west of the site. No suitable vernal pool habitat occurs within the project site.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	Coast woolly-heads	None	None	1B.2	List A	Occurs in well-developed coastal sand dunes along the beaches Elevation Limits: 0 to 100 meters.	Annual herb	Apr to Sep	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	Slender cottonheads	None	None	2.2	List B	Prefers well-developed dunes whether on the desert or rarely, along the coastal beaches. Elevation Limits: 50 to 400 meters.	Annual herb	Apr to May	Not Likely to Occur. Recorded over 14 miles southwest of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Nolina interrata</i>	Dehesa nolina	None	None	1B.1	List A	Open Southern Mixed Chaparral and Chamise Chaparral. Elevation Limits: 185 to 855 meters.	Perennial herb	Jun to Jul	Not Likely to Occur. Recorded over 9 miles southeast of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Opuntia californica</i> var. <i>californica</i>	Snake cholla	None	None	1B.1	n/a	Open Diegan Sage Scrub on xeric hillsides is the preferred habitat for this prostrate to suberect cane type cactus. Elevation Limits: 30 to 150 meters.	Perennial stem succulent	Apr to May	Not Likely to Occur. Recorded over 9 miles southwest of the site. Project site is outside of the range for this species. Marginally suitable habitat occurs within the project site. Not observed during focused plant survey.
<i>Orcuttia californica</i>	California Orcutt grass	Endangered	Endangered	1B.1	List A	This species occurs in vernal pools and vernal swales. Elevation Limits: 15 to 660 meters.	Annual herb	Apr to Aug	Not Likely to Occur. Recorded over 5 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i>	Short-lobed broomrape	None	None	4.2	List D	Coastal Bluff Scrub and Coastal Dunes are the reported habitat for this species. Elevation Limits: 3 to 305 meters.	Perennial herb	Apr to Oct	Not Likely to Occur. Recorded over 12 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

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Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Packera ganderi</i>	Gander's ragwort	None	Rare	1B.2	List A	Chaparral in recently burned areas associated with gabbroic outcrops. Elevation Limits: 400 to 1,200 meters.	Perennial herb	Apr to Jun	Not Likely to Occur. Recorded over 8 miles northeast of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Phacelia stellaris</i>	Brand's star phacelia	Candidate	None	1B.1	List A	This annual grows in sandy openings in Diegan Sage Scrub near the coast. Elevation Limits: 1 to 400 meters.	Annual herb	Mar to Jun	Not Likely to Occur. Recorded over 11 miles southwest of the site. Project site is outside of the range for this species.
<i>Pinus torreyana</i> <i>ssp. torreyana</i>	Torrey pine	None	None	1B.2	List A	Closed Coniferous Forest along the coast near Del Mar is the mainland habitat of the Torrey Pine. Elevation Limits: 75 to 160 meters.	Perennial evergreen tree	n/a	Not Likely to Occur. Recorded over 10 miles north of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE	SE	1B.1	List A	Occurs in vernal pools. Elevation Limits: 90 to 200 meters.	Annual herb	Mar to Jul	Not Likely to Occur. Recorded over 3 miles west of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Not observed during focused plant surveys.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	FE	SE	1B.1	List A	Occurs in vernal pools. Elevation Limits: 90 to 250 meters.	Annual herb	May to Jul	Not Likely to Occur. Recorded over 5 miles southwest of the site. No suitable vernal pool habitat occurs within the project site.
<i>Quercus dumosa</i>	Nuttall's scrub oak	None	None	1B.1	List A	Coastal chaparral with a relatively open canopy cover is the preferred habitat in flat terrain. Elevation Limits: 15 to 400 meters.	Perennial evergreen shrub	Feb to Apr	Not Likely to Occur. Recorded over 1 miles north of the site. Marginally suitable habitat occurs within the project site, but not within open flat terrain.
<i>Salvia munzii</i>	Munz's sage	None	None	2.2	List B	Chaparral and Diegan Sage Scrub. Elevation Limits: 120 to 1,065 meters.	Perennial evergreen shrub	Feb to Apr	Not Likely to Occur. Recorded over 8 miles south of the site. Project site is outside of the elevation range for this species. No suitable habitat occurs within the project site.
<i>Satureja chandleri</i>	San Miguel savory	None	None	1B.2	List A	Found in chaparral and oak woodland, and may be restricted to gabbroic or metavolcanic derived soils. Elevation Limits: 120 to 1,075 meters.	Perennial shrub	Mar to Jul	Not Likely to Occur. Recorded over 10 miles northeast of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site. Not observed during focused plant surveys.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Senecio aphanactis</i>	Chaparral ragwort	None	None	2.2	List B	Occurs in coastal sage scrub and is reported from cismontane woodland and alkaline flats. Elevation Limits: 15 to 800 meters.	Annual herb	Jan to Apr	Not Likely to Occur. Recorded over 5 miles west of the site. Project site is outside of the range for this species. No suitable alkaline habitat occurs within the project site.
<i>Sphaerocarpos drewei</i>	Bottle liverwort	None	None	1B.1	n/a	Under shade of coastal sage brush. Appears to be associated with <i>Geothallus tuberosus</i> . Opening in chaparral and coastal sage scrub. Elevation Limits: 90 to 600 meters.	Ephemeral liverwort	n/a	Not Likely to Occur. Recorded over 9 miles west of the site. Marginal habitat onsite. Coastal sage scrub is sparse and does not provide sufficient shade for this species. Project site is outside of the range for this species. Not observed during focused plant survey.
<i>Stemodia durantifolia</i>	Purple stemodia	None	None	2.1	List B	Occurs in Sonoran Desert scrub in sandy soils. Elevation Limits: 180 to 300 meters.	Perennial herb	Jan to Dec	Not Likely to Occur. Recorded over 1 mile southwest of the site. No suitable Sonoran Desert Scrub habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Streptanthus bernardinus</i>	Laguna Mountains jewel-flower	None	None	4.3	List A	Occurs in Lower Montane Coniferous Forest. Elevation Limits: 670 to 2,500 meters.	Perennial herb	May to Aug	Not Likely to Occur. Recorded over 15 miles south of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Stylocline citroleum</i>	Oil nestraw	None	None	1B.1	List A	Occurs in clay soils in oil producing areas within chenopod scrub, coastal scrub, and valley and foothill grassland. Known Elevation Limits: 50 to 400 meters.	Annual herb	Mar. to Apr.	Low potential to occur. No record of the species within 5 miles of the site. Marginally suitable habitat occurs on Project site, but no evidence of oil production in the area.
<i>Suaeda esteroa</i>	Estuary seablite	None	None	1B.2	List A	The periphery of Coastal Salt Marsh, often growing with <i>Salicornia subterminalis</i> . Elevation Limits: 0 to 5 meters.	Perennial herb	May to Oct	Not Likely to Occur. Recorded over 12 miles southwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
<i>Tetracoccus dioicus</i>	Parry's tetracoccus	None	None	1B.2	List A	Occurs in low-growing Chamise Chaparral, with moderately dense canopy cover. Elevation Limits: 165 to 1,000 meters.	Perennial deciduous shrub	Apr to May	Not Likely to Occur. Recorded over 15 miles south of the site. Project site is outside of the range for this species. Marginally suitable chamise habitat occurs within the project site. Not observed during focused plant survey.
<i>Texosporium sancti-jacobi</i>	Woven-spored lichen	None	None	n/a	n/a	Occurs in southern mixed chaparral on rocky outcrops. Elevation Limits: 10 to 600 meters.	Lichen	n/a	Not Likely to Occur. Recorded over 2 miles south of the site. No suitable rocky chaparral habitat occurs within the project site. Not observed during focused plant survey.
<i>Triquetrella californica</i>	Coastal triquetrella	None	None	1B.2	n/a	Coastal bluff scrub/coastal scrub. Elevation Limits: 10 to 100 meters.	Moss	n/a	Not Likely to Occur. Recorded over 6 miles northeast of the site. Project site is above the elevation range for this species. Project site contains open scrub habitat with little to no complete canopy cover. Therefore, no suitable shaded habitat occurs within the project site.

Species		Status				Preferred Habitat	Life Form	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	USFWS	CDFG	CNPS	SDC MSCP				
U.S. Fish and Wildlife Service		California Department of Fish and Game				California Native Plant Society		San Diego County (SDC) <i>San Diego County Sensitive</i>	
FE	Federal Endangered	CE	California Endangered			1A	Plants presumed extinct in California.	List A: Plants rare, threatened or endangered in California and elsewhere	
FT	Federal Threatened	CT	California Threatened			1B	Plants rare, threatened, or endangered in California and elsewhere.		
PE	Proposed Endangered	CR	California Rare			2	Plants rare, threatened, or endangered in California, but more common elsewhere.	List B: Plants rare, threatened or endangered in California but more common elsewhere	
PT	Proposed Threatened					3	Plants in need of more information.	List C: Plants which may be rare, but need more information to determine their true rarity status	
FC	Federal Candidate					4	Plants of limited distribution.	List D: Plants of limited distribution and are uncommon, but not presently rare or endangered	
FSC	Species of Concern*					*.1	Seriously threatened in California (high degree/immediacy of threat)	Not Listed: Species not listed by San Diego County Proposed North County Multiple Species Conservation Plan	
						*.2	Fairly threatened in California (moderate degree/immediacy of threat)		
						*.3	Not very threatened in California (low degree/immediacy of threats or no current threats known)		
* No longer recognized as a federal designation.									

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity, (within 5 miles) of the Project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur - There is a historical record of the species in the vicinity of the Project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur.

Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project site, and there is a recorded occurrence of the species within the greater vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project site (within 3 miles).

Species Present - The species was observed on the Project site at the time of the survey or during a previous biological survey.

Table 2: Special Status Wildlife Species Table

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
Invertebrates						
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE	None	Group 1, MSCP	Occurs in high quality vernal pool complexes associated with ponded areas with relative cool water with moderate to high water quality characteristics.	Not Likely to Occur. Recorded over 3 miles west of the site. Project site is outside of the known vernal pool complex area of within San Diego. No suitable vernal pool habitat occurs within the project site.
<i>Callophrys thornei</i>	Thorne's hairstreak	None	None	Group 1, NC	Found in wetland meadows and seeps, valley and foothill grasslands and vernal pool wetlands.	Not Likely to Occur. Recorded over 12 miles southeast of the site. Project site is outside of the range for this species. No suitable wetland or marsh habitat occurs within the project site.
<i>Cicindela gabbii</i>	Western tidal-flat tiger beetle	None	None	Group 2, NC	Occurs in estuaries and mud flats along the shore.	Not Likely to Occur. Recorded over 15 miles west of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Cicindela hirticollis grvida</i>	Sandy beach tiger beetle	None	None	Group 2, NC	Occurs in coastal dune along the shore.	Not Likely to Occur. Recorded over 13 miles west of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Cicindela latesignata latesignata</i>	Western beach tiger beetle	None	None	Group 2, NC	Occurs in mud flats along the shore.	Not Likely to Occur. Recorded over 15 miles southwest of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Cicindela senilis frosti</i>	Senile tiger beetle	None	None	Group 2, NC	Occurs in estuaries, mud flats, and wetlands along the shore.	Not Likely to Occur. Recorded over 15 miles northwest of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Coelus globosus</i>	Globose dune beetle	None	None	Group 1, NC	Occurs in coastal dune areas	Not Likely to Occur. Recorded over 13 miles west of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Danaus plexippus</i>	Monarch butterfly	None	None	Group 2, NC	Commonly found in closed cone coniferous forest along the coast.	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the range for this species. No suitable trees or occur within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	FE	None	Group 1, NC	Found on grassy openings in vegetation on hills and mesas near the coast with high density of food plants (<i>Plantago erecta</i> , <i>P. insularis</i> , <i>Orthocarpus purpurescens</i>)	Moderate potential to occur. Record occurrence within 3 miles west of the site. Only a few individual host plants onsite. Marginal quality habitat. Mission Trails population was believed to be eliminated due to 2007 fire.
<i>Lycaena hermes</i>	Hermes copper	None	None	Group 1, NC	Found in mixed woodlands, chaparral, and coastal sage scrub habitats. Spiny redberry is the known host plant and is closely associated with California buckwheat within 10 feet of the host plant.	Moderate potential to occur. Record occurrence within 3 miles of the site. Only a few individual host plants onsite were observed near buckwheat. Marginal quality habitat. Populations do not recover well from fires. No Hermes copper butterflies were observed during protocol surveys.
<i>Melitta californica</i>	A mellitid bee	None	None	N/A	No required habitat listed in the CNNDDB database.	Not Likely to Occur. Recorded over 13 miles southwest of the site. Project site is outside of the range for this species. Species is restricted to coastal areas.
<i>Panoquina errans californica</i>	Wandering skipper	None	None	N/A	Occurs in marshes, swamps, and wetlands	Not Likely to Occur. Recorded over 14 miles southwest of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE	None	Group 1, MSCP	Occurs in vernal pool areas, specifically ponded areas that have deep prolonged inundation for greatly than 30 days.	Not Likely to Occur. Recorded over 4 miles northwest of the site. No suitable vernal pool habitat occurs within the project site.
<i>Tryonia imitator</i>	Mimic tryonia	None	None	Group 2, NC	Occurs in aquatic brackish water marshes, estuaries, lagoons, marshes, swamps, salt marshes, and similar wetland areas.	Not Likely to Occur. Recorded over 12 miles west of the site. Project site is outside of the range for this species. No suitable marsh habitat occurs within the project site.
Reptiles and Amphibians						
<i>Aspidozelis hyperythrus</i>	Orange-throated whiptail	None	DFG: SSC	Group 2, MSCP	Coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and sandy areas with patches of brush and rocks. Perennial plants required to support its primary prey termites.	Moderate potential to occur. Recorded occurrence within 1 mile south of the Project site. Marginal quality habitat within the Project site.
<i>Aspidozelis tigris stejnegeri</i>	Coastal western whiptail	None	None	Group 2, NC	It lives in a wide variety of habitats, including deserts and semiarid shrublands, usually in areas with sparse vegetation; also woodland, open dry forest, and riparian growth	Present Recorded over 3 miles east of the site. Project site is within the known range for this species. Suitable scrub habitat occurs within the project site.
<i>Anaxyrus californicus</i>	Arroyo toad	FE	None	Group 1, MSCP	This species can be found in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, along rivers with sandy banks, willows, cottonwoods, and sycamores, specifically in loose, gravelly areas of streams in drier parts of its range.	Low potential to occur. Recorded occurrence over 10 miles northeast of the site. No suitable habitat within the Project site. Marginal quality habitat in the biological survey area.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Anniella pulchra</i>	Silvery legless lizard	None	None	Group 2, NC	Occurs in loose, sandy soils or leaf litter, typically in sand dunes along the coast as well as sandy areas within coastal sage scrub and chaparral areas.	Not Likely to Occur. Recorded over 7 miles east of the site. No suitable sandy areas occur within the project site. No suitable leaf litter areas as well.
<i>Charina trivirgata</i>	Rosy boa	None	None	Group 2, NC	This species is known to occur within chaparral and desert habitats from the coast to the Mojave and Colorado deserts. Prefers moderate to dense vegetation and rocky cover. Specifically inhabits a mix of brushy cover and rocky soil, coastal canyons and hillsides, desert canyons, washes and mountains.	Low potential to occur. There is a recorded occurrence of this species four miles north of the site. Moderately suitable habitat occurs within the rocky chaparral areas of the Project site.
<i>Chelonia mydas</i>	Green sea turtle	FT	None	n/a	Occurs in marine bays off the coast of San Diego.	Not Likely to Occur. Recorded over 15 miles southwest of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Crotalus ruber ruber</i>	Northern red diamond rattlesnake	None	DFG: SSC	Group 2, NC	Occurs from coastal San Diego County to the eastern slopes of the mountains and in desert habitats. Occurs from sea level to 2,400 feet in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation.	High potential to occur. Species recorded within 1 mile north of the Project site. No suitable habitat occurs within the Project site. Marginally suitable habitat occurs within the biological survey area.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	None	None	Group 2, NC	Wet meadows and moist rocky hillsides, gardens, farmlands, grassland, chaparral, mixed coniferous forests, and woodlands.	Low potential to occur. There is a recorded occurrence eight miles west of the site. Moderately suitable habitat occurs within the wetland portion of the biological survey area.
<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	None	DFG: SSC	Group 1, NC	Occurs in grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forest habitats in the coastal ranges of Southern California. The species prefers early successional stages or open areas. Typically found in rocky areas close to streams and on dry hillsides.	Present. Species was observed in the northern portions of the Project site. Suitable habitat occurs within the Project site and biological survey area.
<i>Phrynosoma blainvillei</i>	San Diego horned lizard	None	DFG: SSC	Group 2, NC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions and prefers friable, rocky, or shallow sandy soils.	Low potential to occur. There is a recorded occurrence 3 miles south of the site. Moderately suitable habitat occurs within the biological survey area.
<i>Salvadora hexalepis virgulata</i>	Coast patch-nosed snake	None	DFG: SSC	Group 2, NC	desert habitat, chaparral, washes and sandy flats	Low potential to occur. There is a recorded occurrence 3 miles south of the site. Moderately suitable habitat occurs within the biological survey area.
<i>Spea hammondi</i>	Western spadefoot toad	None	DFG: SSC	Group 2, NC	Found in coastal sage scrub, chaparral, and grassland habitats, but most common in grasslands with vernal pools or mixed grassland/CSS habitats.	Low potential to occur. There is a recorded occurrence two miles north of the site. Moderately suitable habitat occurs within the biological survey area.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Thamnophis hammondi</i>	Two-striped garter snake	None	DFG: SSC	Group 1, NC	This species is known to occur in coastal California from the vicinity of Salinas to northwest Baja California from sea level to about 7,000 feet in elevation. It is highly aquatic and found in or near permanent fresh water, often along streams with rocky beds and riparian growth.	Low potential to occur. There is a recorded occurrence three miles east of the site. Moderately suitable habitat occurs within the biological survey area.
Avian						
<i>Accipiter cooperi</i>	Cooper's hawk	None	None	Group 1, MSCP	(Nesting) Open, uninterrupted, or marginal type woodlands. Nest sites in riparian growths of deciduous trees, live oaks. Also other various forest habitats that are near water. Dense woodlands and forests are primary foraging habitat for this accipiter.	Present. Species observed nesting within the southwestern portion of the biological survey area. No suitable nesting habitat within the Project site.
<i>Agelaius tricolor</i>	Tricolored blackbird	None	DFG: SSC	Group 1, MSCP	Open grassland, farmland, lakeshores, or scrub for foraging; requires wetlands with tall emergent vegetation for breeding	Not likely to occur. No record of the species within 5 miles of the site. No suitable habitat within the Project site.
<i>Aimophila ruficeps canescens</i>	Southern rufous-crowned sparrow	None	DFG: SSC	Group 1, MSCP	Resident in southern California coastal sage scrub and sparse mixed chaparral.	Present. Species observed foraging within the western portion of the biological survey area. No suitable nesting habitat within the Project site.
<i>Ammodramus savannarum</i>	Grasshopper sparrow	None	None	Group 1, NC	Coastal lowlands in undisturbed grassland with tall dense grasses	Low potential to occur. There is a recorded occurrence three miles east of the site. Moderately suitable habitat occurs within the biological survey area.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Amphispiza belli belli</i>	Bell's sage sparrow	None	DFG: SSC	Group 1, NC	Vertical structure, habitat patchiness, and vegetation density may be more important in habitat selection by the species than the specific shrub species, but is closely associated with sagebrush. Common, but localized resident breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valley, and in the lower foothills of local mountains. The preference for chamise chaparral appears to occur only in the more northern parts of its range.	Moderate potential to occur. Species recorded within 5 miles of the site. Marginally suitable habitat occurs across the site.
<i>Aquila chrysaetos</i>	Golden eagle	Eagle Protection Act	CDFG:FP	Group 1, MSCP	(Nesting and Wintering) Rolling foothills and mountain areas, juniper-sage flats, and deserts. Primarily associated with cliff-walled canyons and large trees in open habitats for nesting. Shrub-steppe and native grassland communities provide important foraging habitat. Also carrion.	Low potential to occur. There is a recorded occurrence 10 miles northeast of the site. No suitable nesting habitat occurs within the survey area.
<i>Athene cunicularia</i>	Burrowing owl	None	DFG: SSC	Group 1, MSCP	Open grasslands, desert, and sparse scrublands with low-growing vegetation. Subterranean nester, dependent upon pre-existing burrow, most commonly from ground squirrels.	Low potential to occur. There is a recorded occurrence six miles southwest of the site. Moderately suitable habitat occurs within the biological survey area, but vegetation is too dense. No suitable burrows were observed within the biological survey area.
<i>Campylorhynchus brunneicapillus cousei</i>	Coastal cactus wren	None	DFG: SSC	Group 1, MSCP	Occurs in southern California coastal sage scrub vegetation. This wren require tall <i>Opuntia</i> cactus for nesting and roosting.	Low potential to occur. There is a recorded occurrence two miles southeast of the site. A few small patches of cactus occur within the Project site, but not suitable for this species.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	DFG: SSC	Group 1, MSCP	Occurs in standing water within the Great Basin and along sandy shores and wetlands.	Not Likely to Occur. Recorded over 12 miles southwest of the site. Project site is outside of the range for this species. No suitable coastal shore habitat occurs within the project site.
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FC	SE	Group 1, NC	Occurs in dense riparian forest areas.	Not Likely to Occur. Recorded over 13 miles south of the site. No suitable riparian habitat occurs within the project site.
<i>Dendroica petechia brewsteri</i>	Yellow warbler	None	DFG: SSC	Group 2, NC	This species is associated with riparian areas, preferring to nest within willows, cottonwoods, aspens, sycamores and alders. Also known to nest in montane shrubs in open conifer forests.	Moderate potential to occur. Species recorded within 2 mile south of the site along the San Diego River. Marginally suitable habitat occurs within the southwestern portion of the biological survey area.
<i>Elanus leucurus</i>	White tailed kite	None	CDFG:FP	Group 1, MSCP	Open savanna, grasslands, and fields	Low potential to occur. Present, observed flying over Project site during reconnaissance level survey. No suitable nesting habitat onsite.
<i>Empidonax traillii extimus</i>	Southern willow flycatcher	FE	SE	Group 1, MSCP	Occurs in dense riparian forest areas.	Not Likely to Occur. Recorded over 10 miles south of the site. No suitable riparian habitat occurs within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Eremophila alpestris actia</i>	California horned lark	None	DFG: SSC	Group 2, NC	prairies, fields, golf courses, shores, airports	Moderate potential to occur. Species recorded within two miles north of the site. Marginally suitable habitat occurs within the biological survey area.
<i>Falco mexicanus</i>	Prairie falcon	None	DFG: SSC	Group 1, NC	Occurs in dry, open county, and prairies	Low potential to occur. Species recorded within three mile northeast of the site. Marginally suitable foraging habitat occurs within the biological survey area.
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted DFG: FP	Group 1, MSCP	Great Basin grasslands, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley, and foothill grassland.	Not Likely to Occur. Recorded over 15 miles southwest of the site. Marginally suitable grassland foraging habitat occurs within the project site. Not likely to nest onsite.
<i>Icteria virens</i>	Yellow-breasted chat	None	DFG: SSC	Group 1, NC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Moderate potential to occur. Species recorded within eight miles east of the site along the San Diego River. Marginally suitable habitat occurs within the southwestern portion of the biological survey area.
<i>Ixobrychus exilis</i>	Least bittern	None	DFG: SSC	Group 2, NC	A colonial nester in marshlands and borders of ponds and reservoirs, which provide ample cover. Nests are usually constructed in low tules, over water.	Moderate potential to occur. Species recorded within 1 mile northeast of the site. Marginally suitable habitat occurs within the southwestern portion of the biological survey area.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Laterallus jamaicensis coturniculus</i>	California black rail	None	None	Group 2, NC	Occurs in brackish water marshes, freshwater marsh, marsh and swamps and salt marsh areas.	Not Likely to Occur. Recorded over 11 miles south of the site. Project site is outside of the range for this species. No suitable marsh habitat occurs within the project site.
<i>Pandion haliaetus</i>	Osprey	None	None	Group 2, NC	Occurs in riparian forests near open water areas for foraging.	Not Likely to Occur. Recorded over 14 miles southwest of the site. No suitable riparian habitat occurs within the project site.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None	SE	Group 1, MSCP	Occurs in wetlands, marshes, and swamps	Not Likely to Occur. Recorded over 12 miles west of the site. Project site is outside of the range for this species. No suitable marsh habitat occurs within the project site.
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted	Delisted DFG: FP	Group 2, MSCP	Occurs in open oceans, rocky or sandy seashore, bay islands, coastal islands, shallow coastal habitats, coastal bays coastal mangroves, tidal flats, sand spits, and mudflats.	Not Likely to Occur. Recorded over 15 miles southwest of the site. Project site is outside of the range for this species. No suitable coastal habitat occurs within the project site.
<i>Phalacrocorax auritus</i>	Double-crested cormorant	None	None	Group 2, NC	Occurs in open oceans, rocky or sandy seashore, bay islands, coastal islands, shallow coastal habitats, coastal bays coastal mangroves, tidal flats, sand spits, and mudflats. Also occurs along rocky cliffs along the coast as well as inland.	Not Likely to Occur. Recorded over 10 miles south of the site. No suitable coastal or cliff habitat occurs within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	DFG: SSC	Group 1, MSCP	This species is an obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California. Specifically inhabits, low, coastal sage scrub in arid washes, on mesa and slopes. Not all areas classified as coastal sage scrub are occupied.	Moderate potential to occur. Species recorded within one mile east of the site within the Sycamore Landfill. Marginally suitable habitat occurs within the Project site. Not observed during focused surveys. .
<i>Rallus longirostris levipes</i>	Light-footed clapper rail	FE	SE	Group 1, MSCP	Occurs in marshes, swamps, and salt marshes along the coast	Not Likely to Occur. Recorded over 12 miles southwest of the site. Project site is outside of the range for this species. No suitable chamise habitat occurs within the project site.
<i>Sternula antillarum browni</i>	California least tern	FE	SE DFG: SSC	Group 1, MSCP	Occurs on sea beaches, bays, large rivers, salts flats. Nests in colonies along the beaches and sand bars.	Not Likely to Occur. Recorded over 11 miles west of the site. Project site is outside of the range for this species. No suitable beach or san bar habitat occurs within the project site.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE	SE	Group 1, MSCP	Least Bell's vireo is a summer resident of Southern California inhabiting low riparian habitats in the vicinity of water or in dry river bottoms below 2,000 feet. Its nests are placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and/or mesquite.	High potential to occur. Species recorded within one mile south of the site along the San Diego River. Marginally suitable habitat occurs within the southwestern portion of the biological survey area. Species was observed downstream of the Project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
Mammals						
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	None	DFG: SSC	Group 2, NC	Variety of habitats including coastal scrub, chaparral, and grasslands in San Diego County. Associated with grass-chaparral edges.	Moderate potential to occur. Species recorded within two miles southwest of the site along the San Diego River. Marginally suitable habitat occurs within the northwestern portion of the biological survey area. However, this area contains steep slopes.
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	None	DFG: SSC	Group 2, NC	Found in coastal scrub, chaparral, grasslands, and sagebrush, among other low-lying habitat types, in western San Diego County.	Moderate potential to occur. Species recorded within two miles southwest of the site along the San Diego River. Marginally suitable habitat occurs within the Project site.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None	None	Group 2, NC	Occurs in pinyon and juniper woodland, riparian scrub, Sonoran thorn woodland.	Not Likely to Occur. Recorded over 6 miles north of the site. No suitable woodland habitat occurs within the project site.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	DFG: SSC	Group 2, NC	Found in desert scrub and coniferous forests. Roosts in caves or abandoned mines, occasionally in buildings.	Not Likely to Occur. Recorded over 10 miles southeast of the site. No suitable desert scrub or coniferous forest habitat occurs within the project site. No suitable roosting habitat within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Euderma maculata</i>	Spotted bat	None	DFG: SSC	Group 2, NC	Lives in desert scrub and open forest areas. Roosts in cliff faces and rock crevices.	Not Likely to Occur. Recorded over 11 miles west of the site. No suitable desert scrub or cliff face habitat occurs within the project site.
<i>Eumops perotis californicus</i>	Western mastiff bat	None	DFG: SSC	Group 2, NC	Lives in rocky areas and cliff faces. Roosts in cliff crevices and buildings	Not Likely to Occur. Recorded over 3 miles south of the site. No suitable cliff areas occur within the project site. Not observed during focused plant survey.
<i>Lasionycteris noctivagans</i>	Silver-haired bat	None	None	n/a	Lives in forested areas, roosts under bark and in tree hollows.	Not Likely to Occur. Recorded over 11 miles southwest of the site. Project site is outside of the range for this species. No suitable habitat occurs within the project site.
<i>Lasiurus blossevillii</i>	Western red bat	None	DFG: SSC	Group 2, NC	Usually among dense foliage, in forests and wooded areas, making long migrations from the northern latitudes to warmer climes for winter, sometimes hibernates in tree hollows or woodpecker holes.	Not Likely to Occur. Recorded over 3 miles south of the site. No suitable forest habitat occurs within the project site.
<i>Lasiurus cinereus</i>	Hoary bat	None	None	n/a	Usually among dense foliage, in evergreen forests and wooded areas. Occurs in small numbers, rarely seen.	Not Likely to Occur. Recorded over 3 miles south of the site. No suitable forest habitat occurs within the project site.
<i>Lasiurus xanthinus</i>	Western yellow bat	None	None	n/a	Found in wooded areas and desert scrub. Roosts in foliage, particularly in palm trees.	Not Likely to Occur. Recorded over 4 miles south of the site. No suitable woodland habitat occurs within the project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None	DFG: SSC	Group 2, NC	Typically occurs in coastal scrub throughout Southern California. Prefers moderate to dense canopies and are particularly abundant in rock outcrops, and rocky cliffs and slopes.	Low potential to occur. Species observed within two miles west of the Project site, marginally suitable habitat occurs on the Project site.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None	DFG: SSC	Group 2, NC	Open desert scrub with suitable cover and burrowing substrate. Burrows beneath desert shrubs and loose friable soils.	Present. Species detected within the western portion of the Project site. Individuals were not observed within the Project site. This species is not likely to occur within the Project site, but is present in the biological survey area.
<i>Antrozous pallidus</i>	Pallid bat	None	DFG: SSC	Group 2, NC	Roosts in rock crevices, tree hollows, mines, caves and a variety of anthropogenic structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. They have also been reported roosting in stone piles.	Low potential to occur. Species observed within three miles east of the Project site, no suitable habitat occurs on the Project site.
<i>Myotis ciliolabrum</i>	Small-footed myotis	None	None	Group 2, NC	Wide range of habitat types however primarily within arid wooded and brushy uplands, including open stands in forests and woodlands, adjacent to water. Caves, buildings, mines, and crevices used for refuge.	Not Likely to Occur. Species observed within ten miles southeast of the Project site, no suitable habitat occurs on the Project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Myotis evotis</i>	Long-eared myotis	None	None	Group 2, NC	Lives in coniferous forests in mountain areas, roosts in small colonies in caves, buildings and under tree bark.	Not Likely to Occur. Species observed within ten miles southeast of the Project site, no suitable coniferous forest habitat occurs on the Project site.
<i>Myotis yumanensis</i>	Yuma myotis	None	None	Group 2, NC	Always found near lakes, creeks or ponds. Roosts by day under building sidings or shingles. Nursery colonies choose caves, mines, buildings or under bridges.	Not Likely to Occur. Species observed within 3 miles southwest of the Project site, no suitable lakes or ponded areas within the project site. Also, no buildings or cave habitat occurs on the Project site.
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	None	DFG: SSC	Group 2, NC	Lives in deserts and sage scrub, roosts in rocky crevices.	Low potential to occur. Species observed within 3 miles southwest of the Project site. Marginally quality coastal sage scrub habitat occurs on the Project site; however, there is no suitable roosting habitat. .
<i>Nyctinomops macrotis</i>	Big free-tailed bat	None	DFG: SSC	Group 2, NC	Lives in rocky areas of desert scrub or coniferous forests. Roosts by day in crevices on cliff faces.	Not Likely to Occur. Species observed within 3 miles southwest of the Project site. No suitable rocky habitat or coniferous forests occur on the Project site.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE	DFG: SSC	Group 1, NC	Coastal sage scrub areas near the coast.	Not Likely to Occur. Species observed within 14 miles northwest of the Project site. No suitable habitat occurs on the Project site. Project site is outside of the know range for this species.
<i>Taxidea taxus</i>	American badger	None	None	Group 2, MSCP	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low potential to occur. No record of the species within six miles east of the site. No suitable habitat within the Project site.
<i>Odocoileus hemionus</i>	Southern mule deer	None	None	Group 2, MSCP	Mule deer occupy a wide range of habitat types within their home range. In San Diego County, this species prefers more arid, open situations.	Low potential to occur. Vegetation on the site is mostly grasslands with several meandering trails. No evidence of the species was observed during the surveys.
<i>Felis concolor</i>	Mountain lion	None	None	Group 2, MSCP	Uses rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral, as well as riparian areas that provide protective habitat connections for movement between fragmented core habitats. Also, need both vertical and horizontal cover components, such as rocks and downed logs, to feel secure enough to bed. Typically associated with populations of the species primary prey, mule deer.	Low potential to occur. No evidence of deer was observed within the Project site. No evidence of the species was observed during the surveys.

Species		Status			Required Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	Federal	State	SDC		
Federal		State			San Diego County Sensitive Animal Lists Group 1: High Sensitivity; species listed or has specific local natural history requirements Group 2: Species declining, but not in immediate threat of extinction or extirpation MSCP: Species Covered Under MSCP (2001) NC: Species Not Covered Under MSCP (2001)	
FE	Federal Endangered	SE	State Endangered			
FT	Federal Threatened	ST	State Threatened			
FSC	Federal Species of Concern	DFG:SSC	California Species of Concern			
PFT	Proposed Federal Threatened	CDFG:FP	Fully Protected Species			
C	Candidate for Federal Listing	CDFG: P	Protected Species			
D	Delisted					
<p>Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity, (within 5 miles) of the Project site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.</p> <p>Low Potential to Occur - There is a historical record of the species in the vicinity of the Project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur.</p> <p>Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project site, and there is a recorded occurrence of the species within the greater vicinity (within 5 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p>High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project site (within 3 miles).</p> <p>Species Present - The species was observed on the Project site at the time of the survey or during a previous biological survey.</p>						

**ATTACHMENT B.4
SPECIES COMPENDIUM**

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Flora Compendia

Selaginellaceae		Spike-Moss Family
<i>Selaginella</i>	<i>bigelovii</i>	Bigelow's spike-moss
Pteridaceae		Brake Family
<i>Pellaea</i>	<i>andromedifolia</i>	coffee fern
<i>Pentagramma</i>	<i>triangularis</i>	goldenback fern
Adoxaceae		Honeysuckle Family
<i>Sambucus</i>	<i>mexicana</i>	blue elderberry
Anacardiaceae		Sumac or Cashew Family
<i>Malosma</i>	<i>laurina</i>	laurel sumac
<i>Rhus</i>	<i>integrifolia</i>	lemonadeberry
<i>Toxicodendron</i>	<i>diversilobum</i>	poison oak
Apiaceae		Carrot Family
<i>Bowlesia</i>	<i>incana</i>	bowlesia
<i>Foeniculum</i>	<i>vulgare</i>	fennel
<i>Lomatium</i>	<i>lucidum</i>	shiny lomatium
<i>Sanicula</i>	<i>bipinnatifida</i>	purple sancile
<i>Sanicula</i>	<i>bipinnatifida</i>	purple sancile
Asteraceae		Sunflower Family
<i>Agoseris</i>	<i>sp.</i>	unknown dandelion species
<i>Ambrosia</i>	<i>psilostachya</i>	western ragweed
<i>Artemisia</i>	<i>californica</i>	California sagebrush
<i>Bahiopsis</i>	<i>laciniata</i>	San Diego County viguiera
<i>Brickellia</i>	<i>californica</i>	California brickellbush
<i>Centaurea</i>	<i>solstitialis</i>	yellow star-thistle
<i>Corethrogyne</i>	<i>filaginifolia</i>	California aster
<i>Cynara</i>	<i>cardunculus</i>	cardoon
<i>Deinandra</i>	<i>fasciculata</i>	clustered tarweed
<i>Ericameria</i>	<i>pinifolia</i>	pinebush
<i>Gnaphalium</i>	<i>bicolor</i>	bicolored cudweed
<i>Gnaphalium</i>	<i>californicum</i>	California everlasting
<i>Helminthotheca</i>	<i>echioides</i>	bristly ox-tongue
<i>Hypochaeris</i>	<i>glabra</i>	smooth cat's-ear
<i>Lactuca</i>	<i>serriola</i>	prickly lettuce
<i>Lasthenia</i>	<i>californica</i>	California goldfields
<i>Logfia</i>	<i>gallica</i>	narrowleaf cottonrose
<i>Osmadenia</i>	<i>tenella</i>	southern rosinweed
<i>Pseudognaphalium</i>	<i>canescens</i>	everlasting cudweed
<i>Pseudognaphalium</i>	<i>stramineum</i>	cotton-batting
<i>Silybum</i>	<i>marianum</i>	milk thistle
<i>Sonchus</i>	<i>oleraceus</i>	common sow thistle

Flora Compendia

<i>Stephanomeria</i>	<i>diegensis</i>	wreathplant
<i>Symphytotrichum</i>	<i>lanceolatum</i>	white panicle aster
<i>Uropappus</i>	<i>lindleyi</i>	Uropappus
<i>Xanthium</i>	<i>strumarium</i>	cocklebur
Brassicaceae		Mustard Family
<i>Brassica</i>	<i>nigra</i>	black mustard
<i>Hirschfeldia</i>	<i>incana</i>	short-podded mustard
<i>Lepidium</i>	<i>nitidum</i>	shining peppergrass
Cactaceae		Cactus Family
<i>Cylindropuntia</i>	<i>california var. parkeri</i>	cane cholla
<i>Ferocactus</i>	<i>viridescens</i>	San Diego barrel cactus
<i>Opuntia</i>	<i>littoralis</i>	coastal prickly pear
Caryophyllaceae		Pink Family
<i>Silene</i>	<i>gallica</i>	small-flower catchfly
<i>Silene</i>	<i>laciniata ssp. californica</i>	California Indian pink
Cistaceae		Rock-Rose Family
<i>Helianthemum</i>	<i>scoparium</i>	peak rush-rose
Convolvulaceae		Morning-Glory Family
<i>Convolvulus</i>	<i>tricolor</i>	bindweed
<i>Cuscuta</i>	<i>californica</i>	California dodder
Crassulaceae		Stonecrop Family
<i>Dudleya</i>	<i>edulis</i>	ladie's-fingers
<i>Dudleya</i>	<i>lanceolata</i>	lance-leaved dudleya
<i>Dudleya</i>	<i>pulverulenta</i>	chalk dudleya
<i>Dudleya</i>	<i>variegata</i>	variegated liveforever
Cucurbitaceae		Gourd Family
<i>Marah</i>	<i>macrocarpus</i>	wild cucumber
Euphorbiaceae		Spurge Family
<i>Croton</i>	<i>setigerus</i>	dove weed
Fabaceae		Legume Family
<i>Lotus</i>	<i>purshianus</i>	Spanish clover
<i>Lotus</i>	<i>scoparius</i>	common deerweed
<i>Lotus</i>	<i>strigosus</i>	strigose lotus
<i>Lupinus</i>	<i>bicolor</i>	miniature lupine
<i>Lupinus</i>	<i>truncatus</i>	blunt leaved lupine
<i>Trifolium</i>	<i>ciliolatum</i>	foothill clover
Fagaceae		Oak Family
<i>Quercus</i>	<i>berberidifolia</i>	scrub oak
Gentianaceae		Gentian Family

Flora Compendia

<i>Centaurium</i>	<i>venustum</i>	charming centaury
<i>Centaurium</i>	<i>venustum</i>	charming centaury
Geraniaceae		Geranium Family
<i>Erodium</i>	<i>botrys</i>	longe beak stork's bill
<i>Erodium</i>	<i>cicutarium</i>	red-stemmed stork's bill
<i>Erodium</i>	<i>moschatum</i>	musky stork's bill
Grossulariaceae		Gooseberry Family
<i>Ribes</i>	<i>speciosum</i>	fuchsia-flowered gooseberry
Hydrophyllaceae		Waterleaf Family
<i>Eriodictyon</i>	<i>crassifolium</i>	thick-leaved yerba santa
<i>Phacelia</i>	<i>cicutaria</i>	caterpillar phacelia
Lamiaceae		Mint Family
<i>Salvia</i>	<i>apiana</i>	white sage
<i>Salvia</i>	<i>columbariae</i>	chia
<i>Salvia</i>	<i>mellifera</i>	black sage
Malvaceae		Mallow Family
<i>Malacothamnus</i>	<i>fasciculatus</i>	mesa bushmallow
<i>Malva</i>	<i>parviflora</i>	cheeseweed
Myrsinaceae		Myrsine Family
<i>Anagallis</i>	<i>arvensis</i>	scarlet pimpernel
Nyctaginaceae		Four O'Clock Family
<i>Mirabilis</i>	<i>laevis var. crassifolia</i>	California wishbone bush
Onagraceae		Evening Primrose Family
<i>Clarkia</i>	<i>gracilis</i>	slender clarkia
<i>Clarkia</i>	<i>purpurea</i>	wine cup clarkia
<i>Clarkia</i>	<i>unguiculata</i>	elegant clarkia
Polygonaceae		Buckwheat Family
<i>Chorizanthe</i>	<i>staticoides</i>	turkish rugging
<i>Eriogonum</i>	<i>fasciculatum</i>	California buckwheat
<i>Eriogonum</i>	<i>fasciculatum</i>	California buckwheat
<i>Rumex</i>	<i>crispus</i>	curly dock
Ranunculaceae		Buttercup Family
<i>Delphinium</i>	<i>californicum</i>	California larkspur
Rhamnaceae		Buckthorn Family
<i>Rhamnus</i>	<i>crocea</i>	redberry buckthorn
<i>Rhamnus</i>	<i>ilicifolia</i>	holly leaf redberry
Rosaceae		Rose Family
<i>Adenostoma</i>	<i>fasciculatum</i>	chamise
<i>Cercocarpus</i>	<i>montanus var. glaber</i>	mountain mahogany

Flora Compendia

<i>Heteromeles</i>	<i>arbutifolia</i>	toyon
Rubiaceae		Madder Family
<i>Galium</i>	<i>angustifolium</i>	narrow-leaved bedstraw
<i>Galium</i>	<i>aparine</i>	goose grass
Scrophulariaceae		Figwort Family
<i>Antirrhinum</i>	<i>nuttallianum</i>	Nuttall's snapdragon
<i>Castilleja</i>	<i>exserta</i>	purple owl's-clover
<i>Castilleja</i>	<i>subinclusa</i>	longleaf Indian paintbrush
<i>Diplacus</i>	<i>aurantiacus</i> ssp. <i>aurantiacus</i>	sticky-leaf monkeyflower
<i>Diplacus</i>	<i>clevelandii</i>	Cleveland's bush monkeyflower
<i>Mimulus</i>	<i>cardinalis</i>	scarlet monkeyflower
<i>Mimulus</i>	<i>guttatus</i>	seep monkeyflower
Solanaceae		Nightshade Family
<i>Solanum</i>	<i>douglasii</i>	greenspot nightshade
<i>Solanum</i>	<i>xanti</i>	chaparral nightshade
Agavaceae		Agave Family
<i>Chlorogalum</i>	<i>parviflorum</i>	small flower soap plant
Iridaceae		Iris Family
<i>Sisyrinchium</i>	<i>bellum</i>	western blue-eyed grass
Liliaceae		Lilly Family
<i>Calochortus</i>	<i>concolor</i>	golden bowl mariposa lily
<i>Calochortus</i>	<i>splendens</i>	splendid mariposa lily
Poaceae		Grass Family
<i>Avena</i>	<i>barbata</i>	slender oat
<i>Bouteloua</i>	<i>gracilis</i>	blue grama
<i>Bromus</i>	<i>carinatus</i>	California brome
<i>Bromus</i>	<i>diandrus</i>	ripgut brome
<i>Bromus</i>	<i>hordeaceus</i>	soft brome
<i>Bromus</i>	<i>rubens</i>	red brome
<i>Bromus</i>	<i>tectorum</i>	cheat grass
<i>Elymus</i>	<i>glaucus</i>	blue wild rye
<i>Gastridium</i>	<i>phleoides</i>	nit grass
<i>Hordeum</i>	<i>murinum</i> ssp. <i>leporinum</i>	leporinum barley
<i>Hordeum</i>	<i>vulgare</i>	hore barley
<i>Lolium</i>	<i>perenne</i> ssp. <i>multiflorum</i>	Italian rye grass
<i>Lolium</i>	<i>perenne</i> ssp. <i>multiflorum</i>	Italian rye grass
<i>Nassella</i>	<i>cernua</i>	nodding needle grass
<i>Nassella</i>	<i>pulchra</i>	purple needle grass
<i>Pennisetum</i>	<i>setaceum</i>	crimson fountain grass
<i>Schismus</i>	<i>barbatus</i>	common Mediterranean grass

Flora Compendia

Themidaceae		Brodiaea Family
<i>Bloomeria</i>	<i>clevelandii</i>	San Diego golden star
<i>Dichelostemma</i>	<i>capitatum</i>	blue dicks

Fauna Compendia

Papilionidae		Swallowtail Butterflies
<i>Papilio</i>	<i>rutulus</i>	western tiger swallowtail
Pieridae		Whites, Sulphurs, and Orangetips
<i>Pieris</i>	<i>rapae</i>	cabbage white
Lycaenidae		Blues and Hairstreaks
<i>Icaricia</i>	<i>acmon</i>	acmon blue
<i>Brephidium</i>	<i>exilis</i>	pygmy blue
Nymphalidae		Brush-Footed Butterflies
<i>Phyciodes</i>	<i>mylitta</i>	mylitta crescent
<i>Precis</i>	<i>coenia</i>	buckeye butterfly
<i>Vanessa</i>	<i>cardui</i>	painter lady
Danaidae		Milkweed Butterflies
<i>Danaus</i>	<i>gillippus</i>	queen
Hesperiidae		Skippers
<i>Erynnis</i>	<i>funeralis</i>	funereal dusky wing
Riodinidae		Metalmarks
<i>Apodemia</i>	<i>mormo virgulti</i>	Behr's metalmark
<i>Calephelis</i>	<i>wrightii</i>	Wright's metalmark
Pompilidae		Spider Wasps
<i>Pepsis</i>	<i>chrysothemis</i>	tarantula hawk
Apidae		Honey Bees and Bumble Bees
<i>Apis</i>	<i>mellifera</i>	honey bee
Hylidae		Treefrogs
<i>Pseudacris</i>	<i>regilla</i>	Pacific treefrog
Phrynosomatidae		Lizards
<i>Sceloporus</i>	<i>occidentalis</i>	western fence lizard
<i>Uta</i>	<i>stansburiana</i>	side-blotched lizard
Scincidae		Skinks
<i>Plestiodon</i>	<i>skiltonianus interparietalis</i>	Coronado skink
Teiidae		Whiptails
<i>Aspidoscelis</i>	<i>tigris</i>	western whiptail
Colubridae		Egg-laying snakes
<i>Lampropeltis</i>	<i>getula californiae</i>	California kingsnake
Cathartidae		Vultures
<i>Cathartes</i>	<i>aura</i>	turkey vulture
Accipitridae		Hawks
<i>Pandion</i>	<i>haliaetus</i>	osprey
<i>Elanus</i>	<i>leucurus</i>	white-tailed kite
<i>Accipiter</i>	<i>cooperii</i>	cooper's hawk

Fauna Compendia

<i>Buteo</i>	<i>jamaicensis</i>	red-tailed hawk
Columbidae		Pigeons/Doves
<i>Zenaida</i>	<i>macroura</i>	mourning dove
Trochilidae		Hummingbirds
<i>Calypte</i>	<i>anna</i>	Anna's hummingbird
Picidae		Woodpeckers
<i>Picoides</i>	<i>nuttallii</i>	Nuttall's woodpecker
Tyrannidae		Flycatchers
<i>Sayornis</i>	<i>nigricans</i>	black phoebe
<i>Myiarchus</i>	<i>cinerascens</i>	ash-throated flycatcher
<i>Tyrannus</i>	<i>verticalis</i>	western kingbird
Corvidae		Jays/Crows
<i>Aphelocoma</i>	<i>californica</i>	western scrub-jay
<i>Corvus</i>	<i>brachyrhynchos</i>	American crow
<i>Corvus</i>	<i>corax</i>	common raven
Hirundinidae		Swallows
<i>Stelgidopteryx</i>	<i>serripennis</i>	northern rough-winged swallow
<i>Hirundo</i>	<i>rustica</i>	barn swallow
Aegithalidae		Bushtits
<i>Psaltriparus</i>	<i>minimus</i>	bushtit
Troglodytidae		Wrens
<i>Troglodytes</i>	<i>aedon</i>	house wren
Mimidae		Mockingbirds/Thrashers
<i>Toxostoma</i>	<i>redivivum</i>	California thrasher
Sturnidae		Starlings
<i>Sturnus</i>	<i>vulgaris</i>	European starling
Prilognatidae		Silky-flycatchers
<i>Phainopepla</i>	<i>nitens</i>	phainopepla
Parulidae		New world warblers
<i>Geothlypis</i>	<i>trichas</i>	common yellowthroat
Emberizidae		Warblers, sparrow, etc.
<i>Pipilo</i>	<i>maculatus</i>	spotted towhee
<i>Pipilo</i>	<i>crissalis</i>	California towhee
<i>Aimophila</i>	<i>ruficeps</i>	rufous-crowned sparrow
<i>Chondestes</i>	<i>grammacus</i>	lark sparrow
Cardinalidae		Cardinals
<i>Pheucticus</i>	<i>melanocephalus</i>	black-headed grosbeak
<i>Passerina</i>	<i>amoena</i>	lazuli bunting
Icteridae		New world blackbirds

Fauna Compendia

<i>Icterus</i>	<i>cucullatus</i>	hooded oriole
Fringillidae		Finches
<i>Carpodacus</i>	<i>mexicanus</i>	house finch
<i>Carduelis</i>	<i>psaltria</i>	lesser goldfinch
<i>Carduelis</i>	<i>tristis</i>	American goldfinch
Leporidae		Hares and Rabbits
<i>Lepus</i>	<i>californicus</i>	black-tailed jackrabbit
<i>Sylvilagus</i>	<i>audubonii</i>	desert cottontail
Sciuridae		Squirrels
<i>Spermophilus</i>	<i>beecheyi</i>	California ground squirrel
Muridae		Mice, Rats, and Voles
<i>Microtus</i>	<i>californicus</i>	California vole
Canidae		Wolves and Foxes
<i>Canis</i>	<i>familiaris</i>	domestic dog
<i>Canis</i>	<i>latrans</i>	coyote

**ATTACHMENT B.5
RESUME**

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Dale Hameister
Regulatory Specialist

Overview

- 9 Years Experience
- Bachelor's degree, Earth System Science and Policy – California State University, Monterey Bay

Dale Hameister has been actively involved in providing biological consulting services for nine years. His extensive knowledge of California's flora and fauna combines with experience in general ecology, wetland assessment, regulatory compliance, fire ecology, and erosion control to facilitate public agency projects involving multiple government agencies: California Department of Fish and Game, United States Fish & Wildlife Service, Army Corp of Engineers, and California State Parks. His scope of work includes preparing biological assessment reports, jurisdictional delineations, native landscape plans, erosion control plans, mitigation and restoration plans, rare species recover plans, and performing fieldwork that involves protocol surveys and construction site monitoring.

Dale is also thoroughly familiar with GIS, GPS, and aerial photography for use in habitat classification, impact analysis, and natural resource planning.

Related Experience

Residential Subdivisions

Initial Biological Assessment for Rancho Cañada Village, Carmel by-the-Sea, CA. Prepared detailed biological surveys and impact assessment for the proposed Rancho Cañada Village subdivision project in Carmel Valley.

Biological Assessment for the Proposed Wang Subdivision for Private Owner, Monterey, CA. Performed biological surveys, habitat classification, impact analysis, and mitigation recommendations for 23 lot subdivision on 120 acres. Included specific surveys for rare and endangered species.

Planting Specifications for Vegetation of Terraced Wire Walls at the McDowell Residence, Carmel Highlands, CA. Prepared planting specification for the vegetation of terraced wire walls for slope stabilization and screening purposes.

Endangered Species

Coachella Valley MSHCP Consistency Analysis, Palm Springs Unified School District Cabot Yerxa Elementary School, City of Desert Hot Springs, Riverside County, California. Prepared biological habitat assessment and MSHCP consistency analysis for 10 acre school site.

Rock Honda Burrowing Owl Focused Survey Report, City of Fontana, San Bernardino County, California. Conducted protocol surveys for burrowing owl at proposed site for Rock Honda.

Habitat Conservation Plan for the Smith's Blue Butterfly, Sarmont Parcel, Carmel Highlands, Monterey County, California. Prepared plan for the designation and maintenance of a preserve for the endangered Smith's Blue Butterfly.

Biological Monitor for the California State Park's Carmel Rivermouth Lagoon Enhancement Project. Monitored construction activities, provided orientation for all Granite Construction Employees on site, and relocated amphibians and reptiles in the construction area.

Avoidance and Mitigation Measures per Salvage, Mitigation and Monitoring Plan for The Marina State Beach Bike Lane Project. Directed and performed legless lizard salvage and relocation, Monterey spineflower seed collection and relocation, and buckwheat removal and mitigation.

Tally Ho Inn Replacement and Remodel Landscape Plan: Prepared for John Thodos AIA Architect, Carmel-by-the-Sea, CA. Prepared landscape planting plan for green roof, technical illustrations, and photographic exhibits

Final Restoration and Mitigation Plan for BT Development Company L.L.C. Holiday Inn Express Project: For BT Development Company in Marina, CA. Obtained 2081 permit for incidental take of endangered sand gilia and Monterey spineflower. Authored restoration and mitigation plan including the salvage and relocation of sand and entire seed bank to the restoration area, establishment of 3 acres of dune scrub habitat, salvage and relocation of legless lizards, and monitoring. Directed and performed legless lizard salvage and relocation.

Vegetation Management Plan – Phase I for San Mateo County Department of Parks and Recreation. Performed GPS mapping and created GIS database of plant communities and rare, threatened and endangered species for Wunderlich Park. Performed biological survey and ground truthing of GIS data.

Bolsa Point Ranch Biological Assessment and Grazing Plan for Peninsula Open Space Trust, San Mateo County, CA. Performed biological surveys and authored habitat descriptions.

Driscoll Ranch Natural Resource Management Plan for Peninsula Open Space Trust, San Mateo County, CA. Performed biological surveys.

Vegetation, Restoration, and Erosion Control

2008 Annual Mitigation Monitoring Report for Rancho Diamante, Hemet, California. Performed vegetation monitoring and statistical analysis for the paseo restoration area within the Rancho Diamante subdivision.

Landslide Restoration and Erosion Control Plan: Prepared for Santa Clara Valley Water District tunnel project near Casa de Fruta, CA. Authored restoration and erosion control plan including planting specification, protection measures, monitoring and maintenance specifications.

Oilfields

Tracer ES&T. Provided biological consulting for development projects within oilfields on Orcutt Hill in Santa Maria, CA.

Utilities and Communication

Results of Biological Survey of Cingular Cellular Site SJ-909-01 International Turbine Research. Prepared biological assessment report to determine impacts of a proposed cellular tower near Hollister, CA.

ATTACHMENT B.6
LORS REFERENCE PAGES

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Table 4.12-10 Applicable LORS for Biological Resources

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
Federal			
U.S. Army Corps of Engineers (USACE), South Pacific Division, Los Angeles District	Individual or Nationwide Permit under Section 404 of the Clean Water Act (CWA)	Discharges of dredged or fill material into waters of the United States, including their adjacent wetlands	The USACE may issue a Permit under Section 404 of the CWA, which establishes a program to regulate the discharge of dredge or fill material into waters of the U.S., which may include dry desert washes if they drain to waters of the U.S. Applicants must show compliance with the National Environmental Policy Act and provide mitigation for any permanent loss of wetlands or waters of the U.S. Regulatory information is available online at: http://www.spl.usace.army.mil/regulatory/ . Page 4.12-50
U.S. Fish and Wildlife Service (USFWS), Region 1, Pacific Region	Endangered Species Act (ESA) (16 USC § 1531 et seq., 50 CFR § 17.1 et seq.)	Potential adverse impacts to federally listed species and/or designated critical habitat	The ESA designates and protects federally threatened and endangered species and their designated critical habitats, and prohibits “take” of listed species without an Incidental Take Permit with a Habitat Conservation Plan (HCP). Critical habitats are areas designated by USFWS as essential to the conservation of a listed species and that may require special management and protection. For federally listed species covered by the MSCP Plant and Subarea Plan, the Project’s compliance with ESA will be demonstrated by compliance with the MSCP Plan and Subarea Plan. For impacts to federally listed species not covered by the MSCP Plan and Subarea Plan (such as the Quino checkerspot butterfly), the Project will require development of an HCP and acquisition of an Incidental Take Permit. Avoidance and mitigation measures will be employed to avoid or reduce impacts to covered species. Page 4.12-50
USFWS, Region 1, Pacific Region	Migratory Bird Treaty Act (MBTA) (16 USC §703–712; 50 CFR §10 Subchapter B)	Potential impacts on any migratory bird species	This act prohibits the “take” of migratory birds and their active nests containing eggs or young unless permitted. This regulation can constrain construction activities that have the potential to affect nesting birds either through vegetation removal and land clearing, or other construction or operation related disturbance. Page 4.12-55
USFWS, Region 1, Pacific Region	Bald and Golden Eagle Protection Act (BGEPA) (16 USC §668; 50 CFR §22 et seq.)	Potential impacts to bald or golden eagle	This act protects bald and golden eagles from harm or trade in parts of these species, and regulates take of bald and golden eagles through a permitting process. Page 4.12-55

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
State Jurisdictions			
California Department of Fish and Game (CDFG)	Streambed Alteration Agreement (California Fish and Game Code § 1602)	Temporary or permanent disturbance to bed and bank of any stream, including dry washes, in California	CDFG may take jurisdiction over ephemeral washes and will issue a permit for any grading that impacts the bed and bank of a wash and all its tributaries. The permit will include mitigation requirements that may include compensatory payments. Page 4.12-55
CDFG	California Endangered Species Act (CESA) (California Fish and Game Code §§2050 et seq.) – Incidental Take Permit	Potential impact to any state-listed threatened or endangered wildlife species	This act prohibits any activities that would jeopardize or take a species listed as threatened or endangered within the State of California. For state-listed species covered by the MSCP Plan and Subarea Plan, compliance with CESA will be demonstrated by compliance with the provisions of the MSCP Plan and Subarea Plan. Projects that have the potential to impact wildlife species listed as threatened or endangered by the state that are not covered by the MSCP Plan and Subarea Plan may require an Incidental Take Permit from the CDFG under California Fish and Game Code Section 2081. The application for this permit requires a project description, analysis of impacts to the species, and an analysis of the probability of the long-term survival of the wildlife species as related to impacts. Page 4.12-55
CDFG	Title 14, California Code of Regulations (CCR), Sections 670.2 and 670.5	Potential impacts to species identified as California Species of Special Concern (CSC)	CSC is a category conferred by CDFG on those species that are indicators of regional habitat changes or are considered potential future protected species. These species do not have any special legal status, but are intended by CDFG for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel. Page 4.12-55
CDFG	Fish and Game Code Sections 3511, 4700, 5050, and 5515	Potential impacts to mammals, amphibians and reptiles, and fishes that are identified as “fully protected”	These codes list mammal, amphibian, reptile, and fish species that are fully protected in California. Page 4.12-55
CDFG	Fish and Game Code Sections 3503, 3503.5, 3513 Permit required for take of fully protected birds. Fish and Game Code Section 3511 - identifies those bird species that are “fully protected”	Potential impacts to all bird species, including migratory species, except where noted otherwise; birds of prey are especially of concern	Fish and Game Code Section 3503 - States that 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. Fish and Game Code Section 3503.5 - Protects all birds of prey and their eggs and nests. Fish and Game Code Section 3511 - Identifies bird species, primarily raptors that are “fully protected.” Fully protected birds may not be taken or possessed, except under specific permit requirements. Fish and Game Code Section 3513 - Makes it unlawful to take or possess any non-game migratory bird, as designated by the Migratory Bird Treaty Act.

[Page 4.12-55](#)

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
CDFG	California Endangered Species Act of 1984 (Fish and Game Code Sections 2050-2116) (Listed Plants) CESA Section 2081 Permit	Potential impacts to any state-listed plant species	To align with federal regulations, the CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into the Act as threatened species, but did not do so for “rare” plants. There are three listing categories for plants in California: rare, threatened, and endangered. Take of state-listed plants is prohibited under CESA but destruction of state-listed plants is allowed under limited circumstances. The CESA also requires mitigation for impacts to species and their habitat (CNPS 2001). The CDFG requires a CESA Section 2081 (a) permit for take of candidate or listed threatened and endangered plants for scientific, educational, or management purposes, and a CESA Section 2081 (b) permit for incidental take of listed threatened and endangered plants from all activities, except those specifically authorized by the Native Plant Protection Act (NPPA). Because plants designated as rare are not included in the CESA, mitigation measures for impacts to plants designated as rare are specified in a formal agreement between the CDFG and the project proponent. Page 4.12-55
CDFG	Native Plant Protection Act, Fish and Game Code Sections 1900-1913	Potential impacts to any state-designated endangered or rare plant species	The NPPA directed CDFG to “preserve, protect and enhance rare and endangered plants in the State.” The NPPA gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take. Page 4.12-56
CEC	California Environmental Quality Act (CEQA); California PRC § 21000 et seq.	Submittal of Application for Certification for thermal power plants 50 MW and larger	The CEC’s permitting process is a certified regulatory program under CEQA, which provides for the protection of the California environment, and requires state and local agencies to identify significant environmental impacts (including those on biological resources) of their actions and to void or mitigate those actions. The Project will comply with the CEC’s requirements for analysis of biological impacts listed in 14 CCR § 15000. Page 4.12-56
California Environmental Protection Agency (Cal/EPA); San Diego Regional Water Quality Control Board (RWQCB)	Water Quality Certification under Section 401 of the CWA	Any work that may result in a discharge to waters of the U.S.	Section 401 of the CWA requires that any applicant for a federal license or permit who conducts any activity that may result in a discharge to waters of the state must provide the licensing or permitting agency a certification that the activity complies with water quality requirements and standards. If a nationwide or individual 404 permit is required, a 401 certification is also required in California. The Project will not require a Section 404 permit because there will be no impacts to wetlands or waters of the U.S. or discharges to waterways. The Section 401 Water Quality Certification is therefore not required. Page 4.12-57

Permitting Agency	LORS or Permit/Approval/Consultation	Trigger	Comments
Cal/EPA; San Diego RWQCB, National Pollutant Discharge Elimination System (NPDES) General Permits, Section 402, CWA	General Permit for Stormwater Discharges, Construction	Ground disturbance greater than 1 acre (no permit is needed if less than 1 acre)	Discharges associated with construction activities, including clearing, grading, and excavation, that disturb 1 or more acres of land must obtain an NPDES Storm Water Discharge General permit. This permit is issued under authority of the Federal Water Pollution Control Act and requires a Storm Water Pollution Prevention Plan, Best Management Practices, and a NOI. Page 4.12-57
San Diego RWQCB	Porter-Cologne Water Quality Control Act	N/A	Pursuant to California's Porter-Cologne Water Quality Control Act, the state RWCQBs regulate the "discharge of waste" to "waters of the state." All parties proposing to discharge waste that could affect waters of the state must file a waste discharge report with the appropriate regional board. The RWQCB will then respond to the report of waste discharge by issuing waste discharge requirements (WDRs) or by waiving WDRs (with or without conditions) for that proposed discharge. Both of the terms "discharge of waste" and "waters of the state" are broadly defined in Porter-Cologne, such that discharges of waste include fill, any material resulting from human activity, or any other "discharge" that may directly or indirectly impact "waters of the state." Page 4.12-57
Local Jurisdictions			
San Diego County, City of San Diego	San Diego County MSCP, City of San Diego Subarea Plan, and Biological Mitigation Ordinance	Impacts to covered resources within MSCP Plan or Subarea Plan jurisdictional areas	The MSCP Plan, Subarea Plan, and associated documents serve as an HCP under the FESA for covered species, and establish a preserve system to protect San Diego County's sensitive species and habitats. Permits the taking of MSCP Plan/Subarea Plan covered species with compliance with all guidelines. The AFC application will describe how the Project complies with all relevant guidelines of the MSCP Plan and Subarea Plan pertaining to resources potentially impacted by the Project. Page 4.12-57
City of San Diego	East Elliot Community Plan	Projects within East Elliot planning area must conform with the plan	The East Elliot Community Plan contains provisions specific to the Project area. The City of San Diego will advise the Project proponent if compliance with the plan will be accomplished through a zone change or a community plan amendment. Page 4.12-59
City of San Diego	Environmentally Sensitive Lands Regulations	Project that impact environmentally sensitive lands or sensitive biological resources as defined by the San Diego Municipal Code	The Project area does contain lands that would be considered environmentally sensitive on the plant site and in the overall Project area. The City of San Diego is currently considering the type of site development permit needed for the Project and how compliance with environmentally sensitive lands regulations will be achieved. Page 4.12-59

ATTACHMENT C.1
FIGURE 3-4a SURVEY AREA NORTH AND
FIGURE 3-4b SURVEY AREA SOUTH

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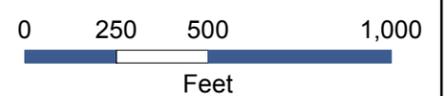
Legend

-  Cultural Resources Survey Area
-  Areas not surveyed (>35% Slopes)



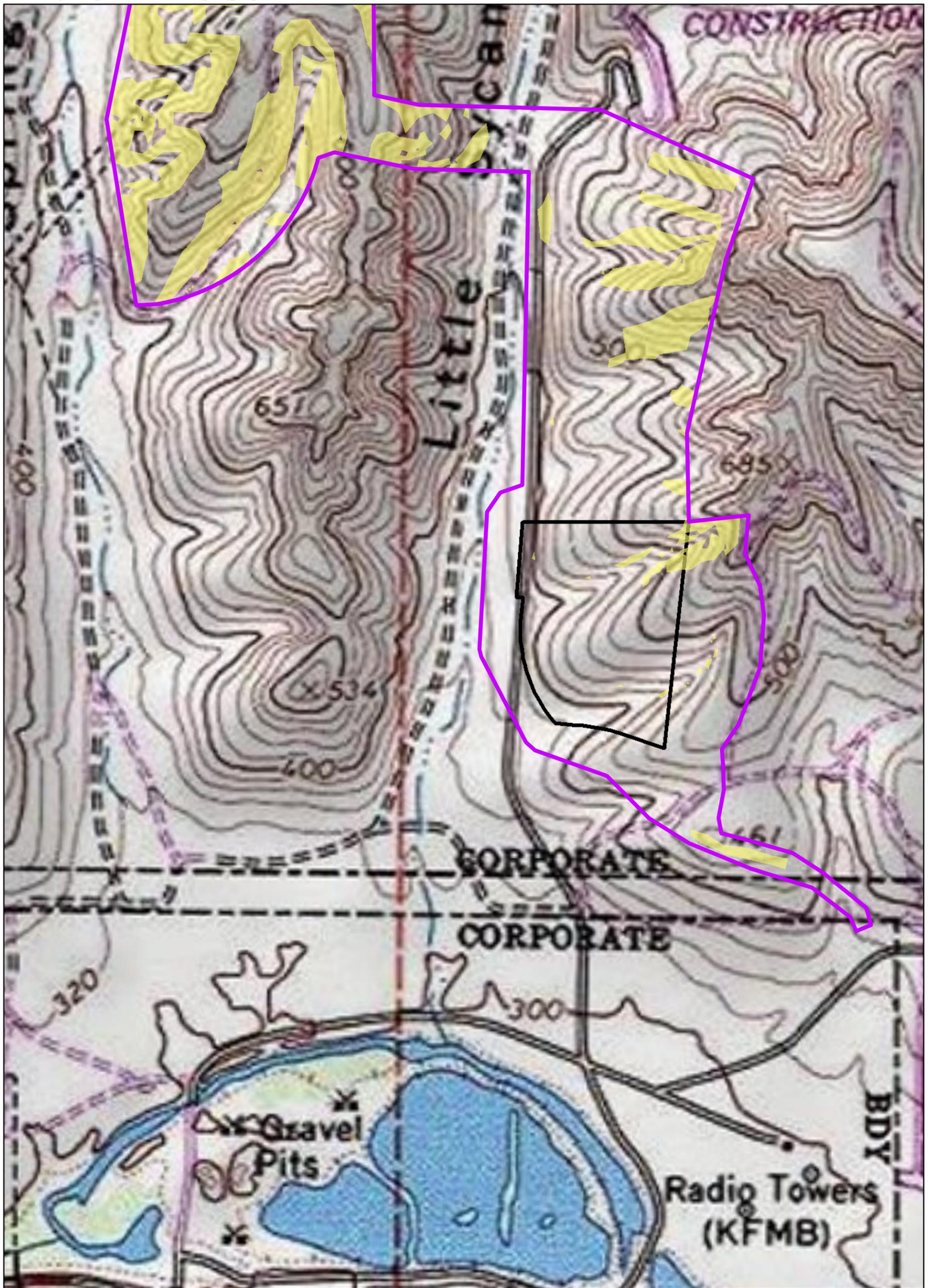
QUAIL BRUSH GENERATION PROJECT

**FIGURE 3-4a
SURVEY AREA
NORTH**



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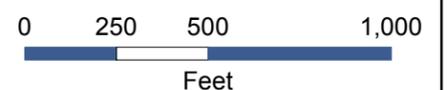
Legend

-  Cultural Resources Survey Area
-  Areas not surveyed (>35% Slopes)



QUAIL BRUSH GENERATION PROJECT

**FIGURE 3-4b
SURVEY AREA
SOUTH**



TETRA TECH EC, INC.



ATTACHMENT C.2
SUPPLEMENTAL QUAIL BRUSH SURVEY DESIGN

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ATTACHMENT 2

SUPPLEMENTAL QUAIL BRUSH SURVEY DESIGN

This supplemental survey is intended to account for the poor ground surface visibility experienced during the May 2011 cultural resources survey for the Quail Brush Generation Project (Project) in San Diego, California. Further, this supplemental survey is also intended to cover Project areas and agency-required buffers due to Project design changes that have occurred after the original May 2011 survey.

Background

The original pedestrian survey consisted of walking 10- to 15-meter spaced transects in areas with slopes under 35 percent. That survey identified one previously recorded lithic deposit (CA-SDI-13576) and six newly identified isolates (QB-ISO-1 through QB-ISO-6) consisting of debitage, a core, historic-era vehicle bodies, and a possible historic survey marker. However, none are within the current Project layout or Area of Potential Effect (APE). The location of a second, previously recorded lithic scatter is within the APE, but was found during the original survey to have been destroyed (CA-SDI-13593) by grading activity. Ground surface visibility was considered poor over the majority of the APE due to dense grasses that were laid down over the ground.

The majority of the survey area is on privately owned land with small portions of two parcels owned by the City of San Diego and one owned by the County of San Diego. Therefore, landowner permission will be necessary to conduct the supplemental survey. Tetra Tech will work with the Applicant to notify landowners of the proposed work and obtain their permission for access to their land and any permits for City- and County-owned land. If permission is not granted by a landowner, survey work will not be conducted within that portion of the survey area.

Supplemental Survey Design and Protocols

The supplemental survey will incorporate vegetation removal on a grid system in order to better view the surfaces where archaeological materials may exist. The survey will be constrained to slopes under 35 percent (19.3 degrees) within the APE and required CEC buffers (see attached map), where access is granted by landowners. The CEC-required buffers include a 200-foot buffer on the preliminary switchyard and plant site project boundary and a 50-foot buffer on the access roads, gas lateral, gen tie line, and overhead line corridors. A slope limit is commonly used during archaeological survey as a health and safety precaution. Moreover, steep slopes in the San Diego area typically do not contain *in situ* cultural deposits and, in fact, the City of San Diego does not require pedestrian survey of slopes greater than 25 percent for this reason (personal communication, Myra Herrmann). Exceptions are made for areas such as rock outcrops within the APE or where structures may be visible from afar. In these cases, an effort is made to visually inspect the area. The tops of ridgelines and peaks of hills are understood to be of archaeological sensitivity, particularly for cairns, shrines, etc. Therefore, particular effort will be made to intensively inspect these areas as well.

In areas with less than a 35 percent slope, a 15-meter grid system will be laid out across the survey area and the vegetation will be removed within a one-meter-by-one-meter area centered on each grid point. Vegetation removal will avoid jurisdictional wetlands, sensitive plant species, and plants that host sensitive fauna species documented by the Project's biological resources survey (MBA 2011). This may require off-setting a grid point to avoid a single plant or avoiding

an entire area completely (i.e. jurisdictional wetlands or dense stands of sensitive plants). The 15-meter grid spacing is based on the archaeological site distribution pattern, the average site size in the Project and surrounding areas, and the survey guidelines of the City of San Diego. The density of eroding medium to large cobbles from the underlying Stadium Conglomerate may make removal of vegetation using a shovel difficult. Therefore, a weed whacker, if allowed by the Fire Department, or machete may be used to cut grasses to a length where the ground surface is readily visible rather than using a shovel to scrape the grasses away. The results of vegetation removal at each point will be systematically documented.

If cultural materials are identified, they will be mapped using a Trimble Global Positioning System (GPS) unit and recorded on appropriate California Department of Parks and Recreation (DPR) site forms. Vegetation removal may be expanded around any identified archaeological resources or placed between grid points in order to determine the nature of the site and the site's boundaries. No subsurface testing/screening or artifact collection will occur as part of this survey.

Staffing

The survey will be conducted by two crews of two professional archaeologists. Native Americans consulted as part of the original May 2011 survey will be contacted to determine if there is interest in participating in the survey. One paid Native American monitor will participate in the survey if interest is shown. Other interested Native Americans may participate in the survey on a voluntary basis.

Supplemental Survey Documentation

Results of the survey will be provided in a revised technical report that includes the results of the May 2011 survey and incorporates the results of this survey. This updated report will conform to the Archaeological Resource Management Report format (OHP 1990). The report will include maps of engineering design and surveyed areas and any additional recommended mitigation measures. The report will be provided to the CEC and the City of San Diego for comment and approval. If any resource identified by the survey cannot be avoided, it will be evaluated for CRHR eligibility and, if necessary to avoid significant impacts on the resource, additional treatments recommended. Methodologies and research designs for such actions, if necessary, will be submitted separately following the supplemental survey.

References

California Office of Historic Preservation (OHP)

1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. February 1990. Sacramento, California.

Michael Brandman Associates (MBA)

2011 *Focused Survey for Sensitive Plant Species Cogentrix Quail Brush Generation Project, City of San Diego, San Diego County, California*. Prepared for Tetra Tech EC, Inc., Lakewood, CO. Michael Brandman Associates, Irvine, CA.

ATTACHMENT C.3
SUBMITTED UNDER CONFIDENTIAL COVER

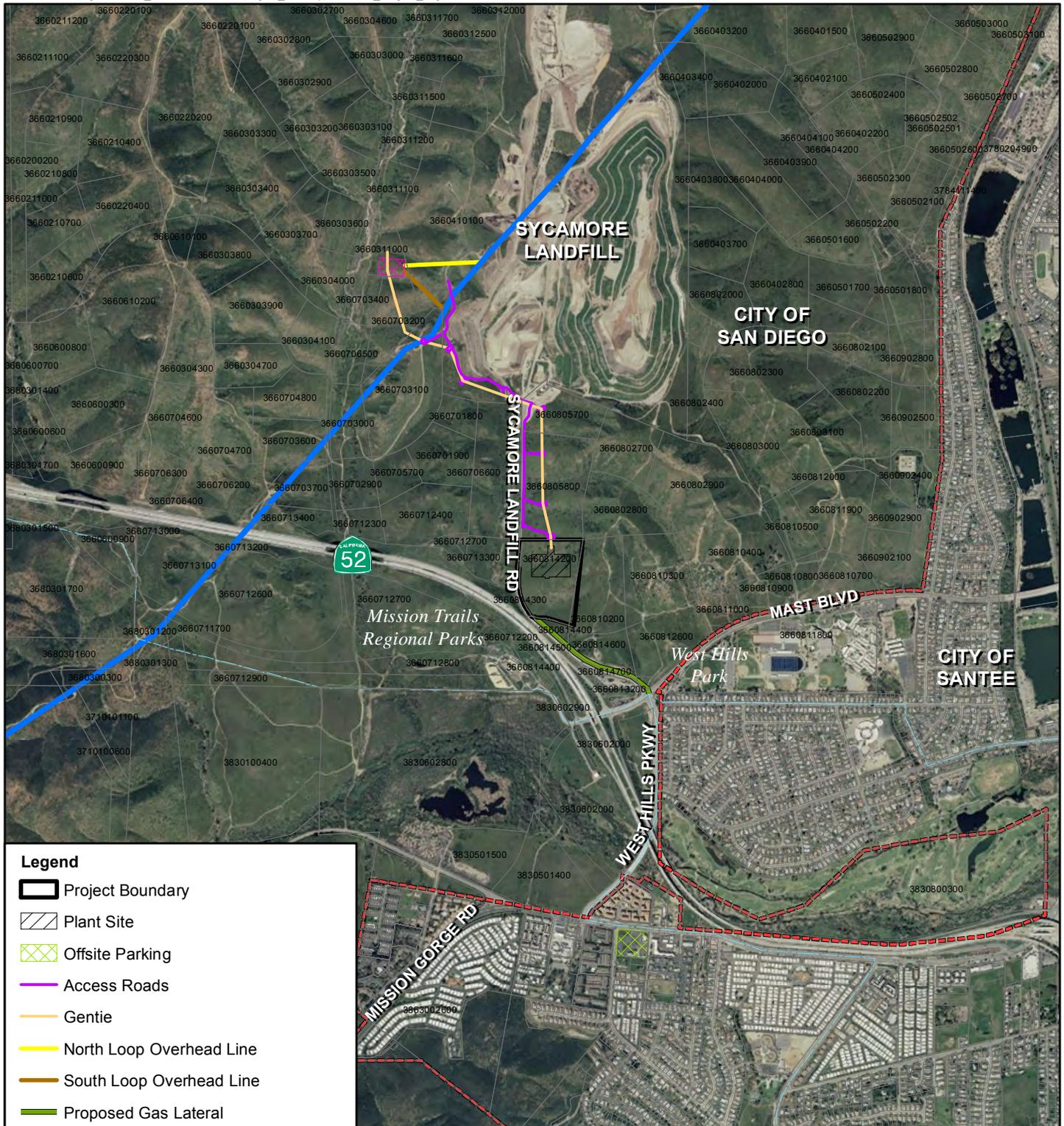
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**ATTACHMENT D
SUBMITTED UNDER CONFIDENTIAL COVER**

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ATTACHMENT E
FIGURE 2.1-2 PROJECT LAYOUT

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Legend

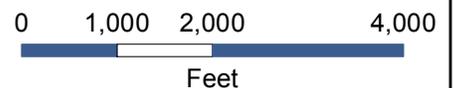
-  Project Boundary
-  Plant Site
-  Offsite Parking
-  Access Roads
-  Gentie
-  North Loop Overhead Line
-  South Loop Overhead Line
-  Proposed Gas Lateral
-  Existing SDG&E Gas Line
-  Existing SDG&E 230 kV T-Lines (2)
-  Preliminary SDG&E Switchyard
-  City Boundary
-  Assessors Parcel Number

As the Project is not within a sectioned part of the county, section, township, and range information cannot be provided.



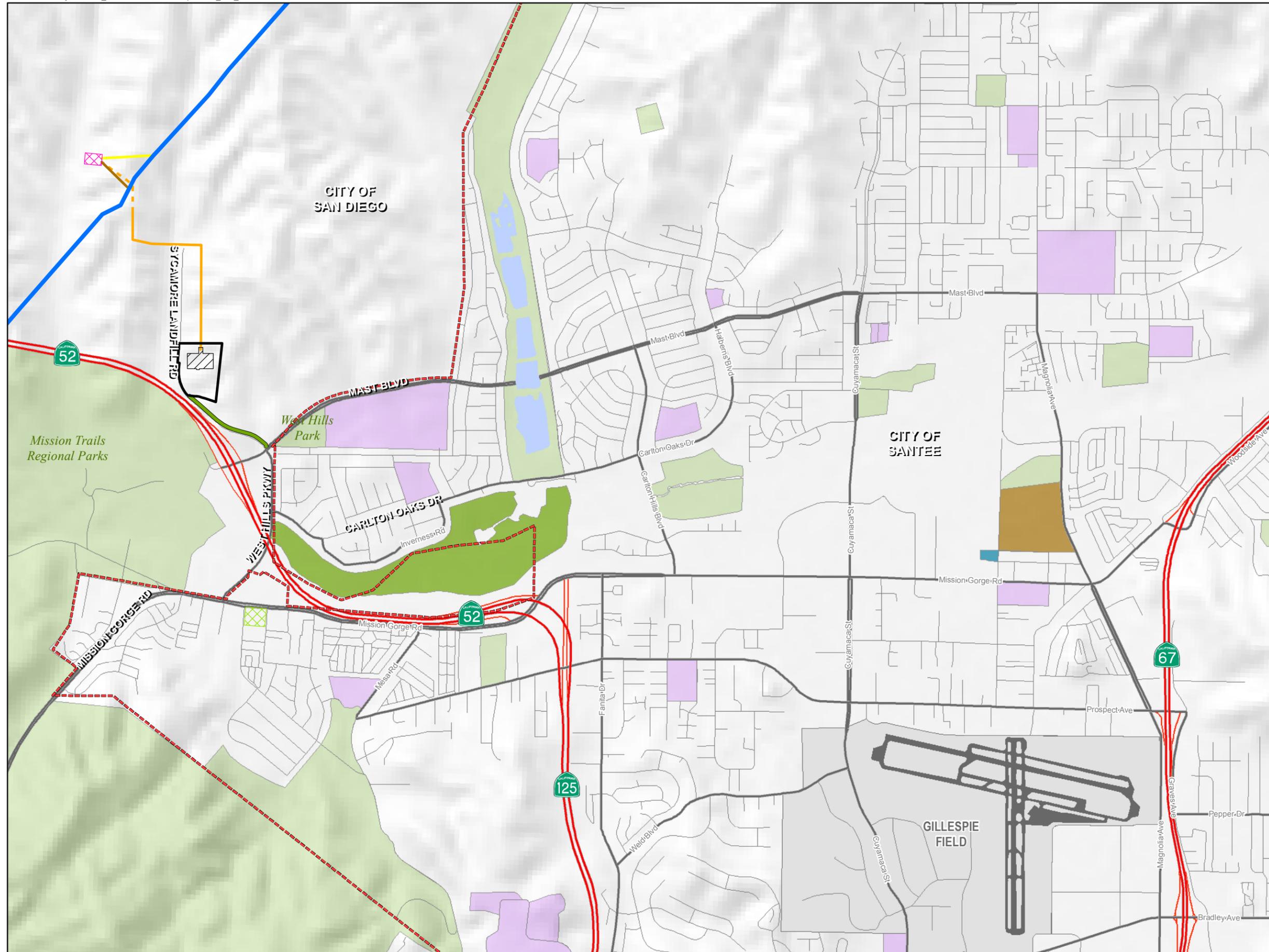
QUAIL BRUSH GENERATION PROJECT

**FIGURE 2.1-2
PROJECT LAYOUT**



ATTACHMENT F
FIGURE 4.4-3 FAA COMPLIANCE

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Project Components

- Project Boundary
- Plant Site
- Offsite Parking
- Overhead Gen Tie
- Underground Gen Tie
- North Loop Overhead Line
- South Loop Overhead Line
- Proposed Gas Lateral
- Existing SDG&E 230 kV T-Lines (2)
- Preliminary SDG&E Switchyard

Other Features

- City Boundary
- Hospital
- Detention Facility
- Schools
- Golf Course
- Local Parks
- Airport Boundary
- Airport Runways

QUAIL BRUSH GENERATION PROJECT

**FIGURE 4.4-3
FAA COMPLIANCE**

0 1,000 2,000 4,000
Feet

TETRA TECH EC, INC.

ATTACHMENT G
EXHIBITS

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REV. NO.	DATE	DESCRIPTION	BY	CHK.	APVD.
REVISIONS					

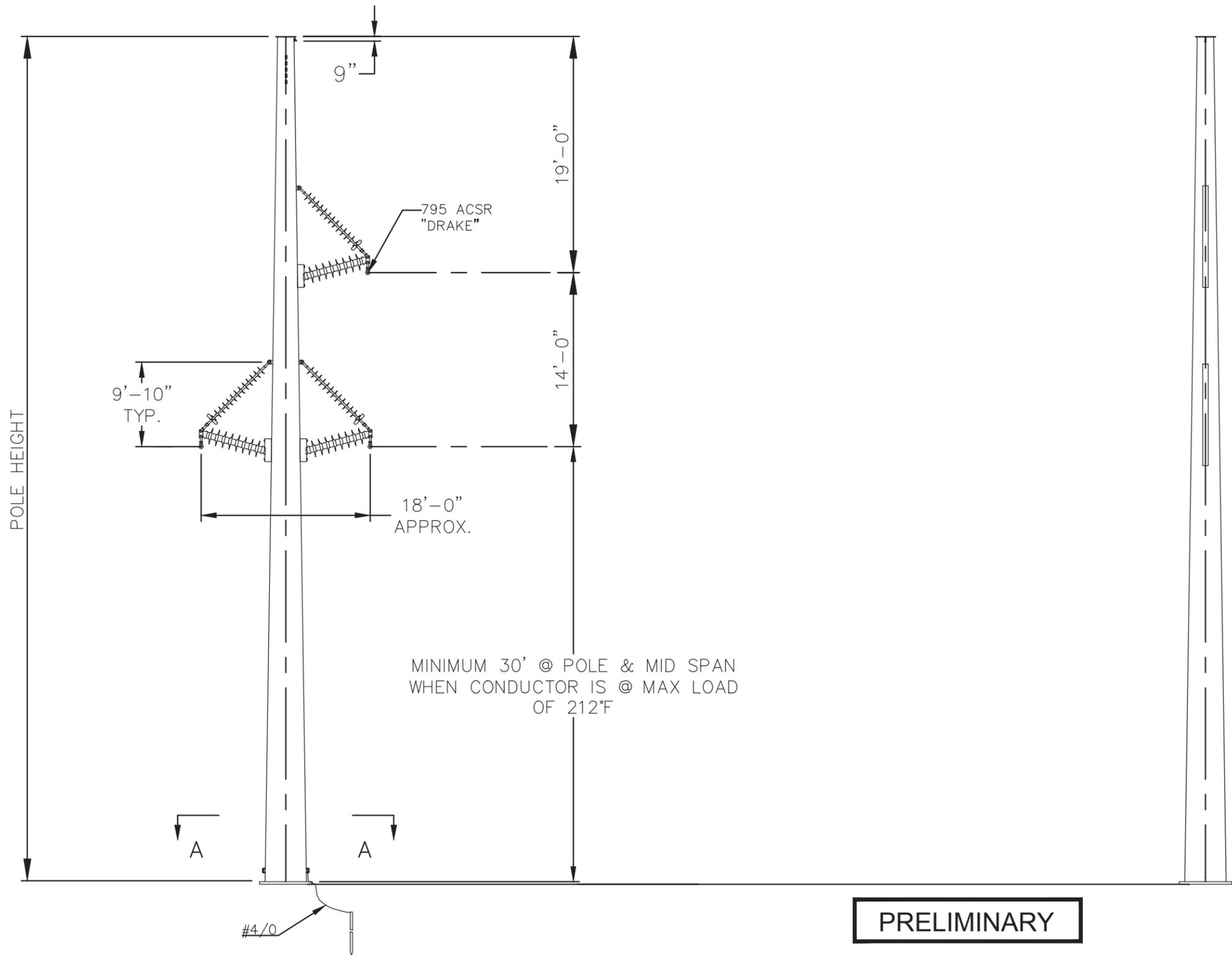
AMPIRICAL ENGINEER	DRN: MDB
NAME: KURT TRAUJ	DSN: KMT
PHONE: 985-809-5278	CKD:
CAD FILENAME:	STAMPED BY:
CLIENT CHARGE NO:	REGISTRATION NO:
	STATE:

PROPRIETARY

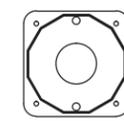
This Drawing is the property of Amprical Solutions LLC and contains proprietary and confidential information which must not be duplicated, used or disclosed other than expressly authorized by Amprical Solutions LLC.

EXHIBIT 1
230kV Transmission Line Plan View

SCALE: 1"=200' DRAWING NO: QB-PLANVIEW SHEET 1 OF 1



GEN TIE STR#	230kV LINE HEIGHT(ft.)
3	100'
9	90'



SECTION A-A

PRELIMINARY

FRAMING: A-D-BP2-S-230

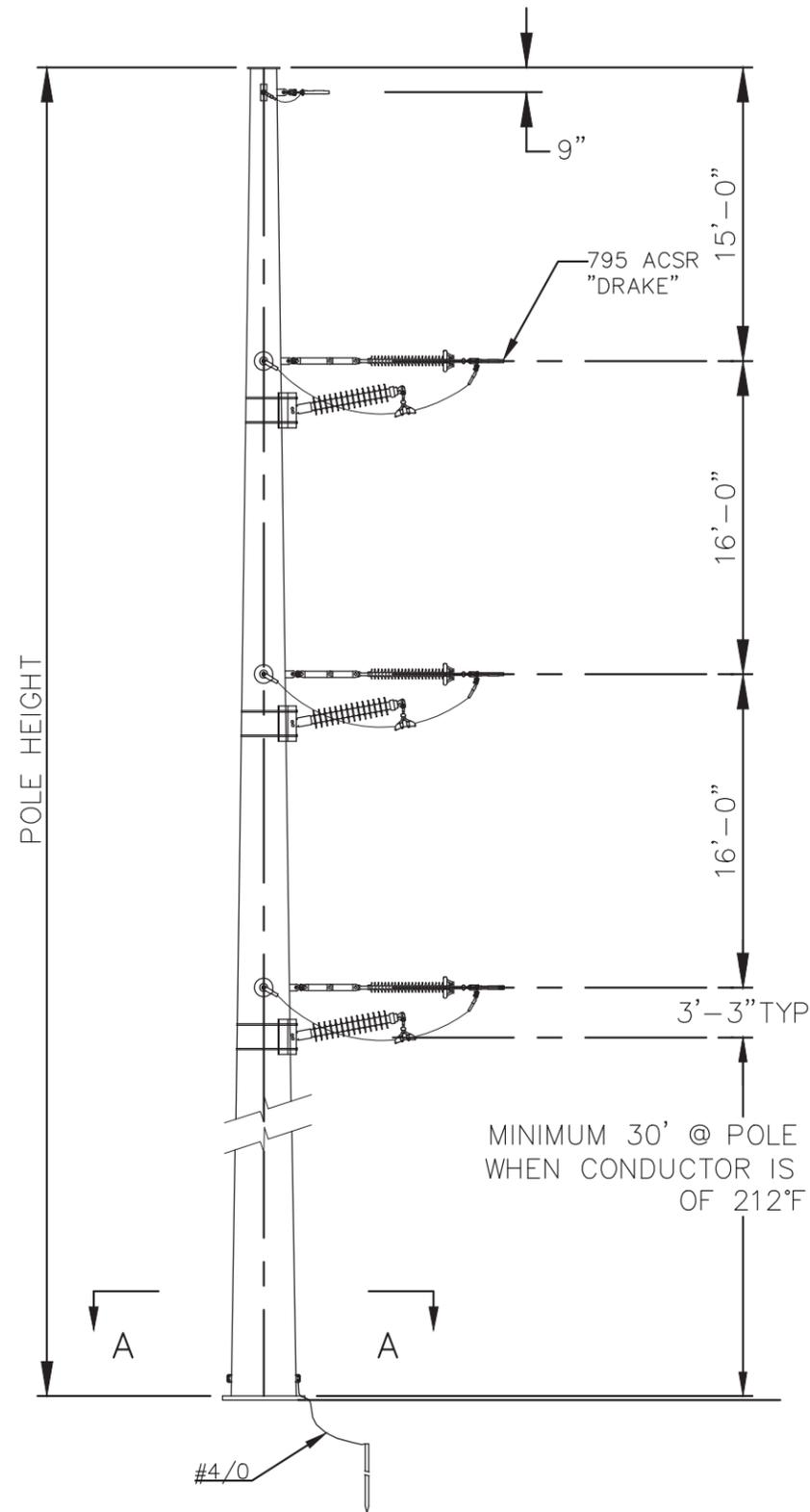


REV	DATE	DESCRIPTION
A	10/13/11	ISSUED FOR REVIEW

DRAWN	CHECKED	DATE	SCALE
MAS	KMT	10/12/11	NONE

EXHIBIT 2
230kV Transmission Delta, Single Circuit,
Braced Post 2-1/2", Conc

TOLERANCE 5001 THICK N/A MATERIAL _____ FINISH _____ WEIGHT _____

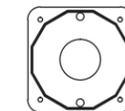


MINIMUM 30' @ POLE & MID SPAN
WHEN CONDUCTOR IS @ MAX LOAD
OF 212°F



GEN TIE	230kV LINE
STR#	HEIGHT(ft.)
1	95'
2	105'
4	105'
5	105'
6	95'
10	95'

TL23023 LOOP	
STR#	HEIGHT(ft.)
3	100'
4	95'
5	95'
6	105'



SECTION A-A

PRELIMINARY

FRAMING: SDJ-V-DEP-S-230

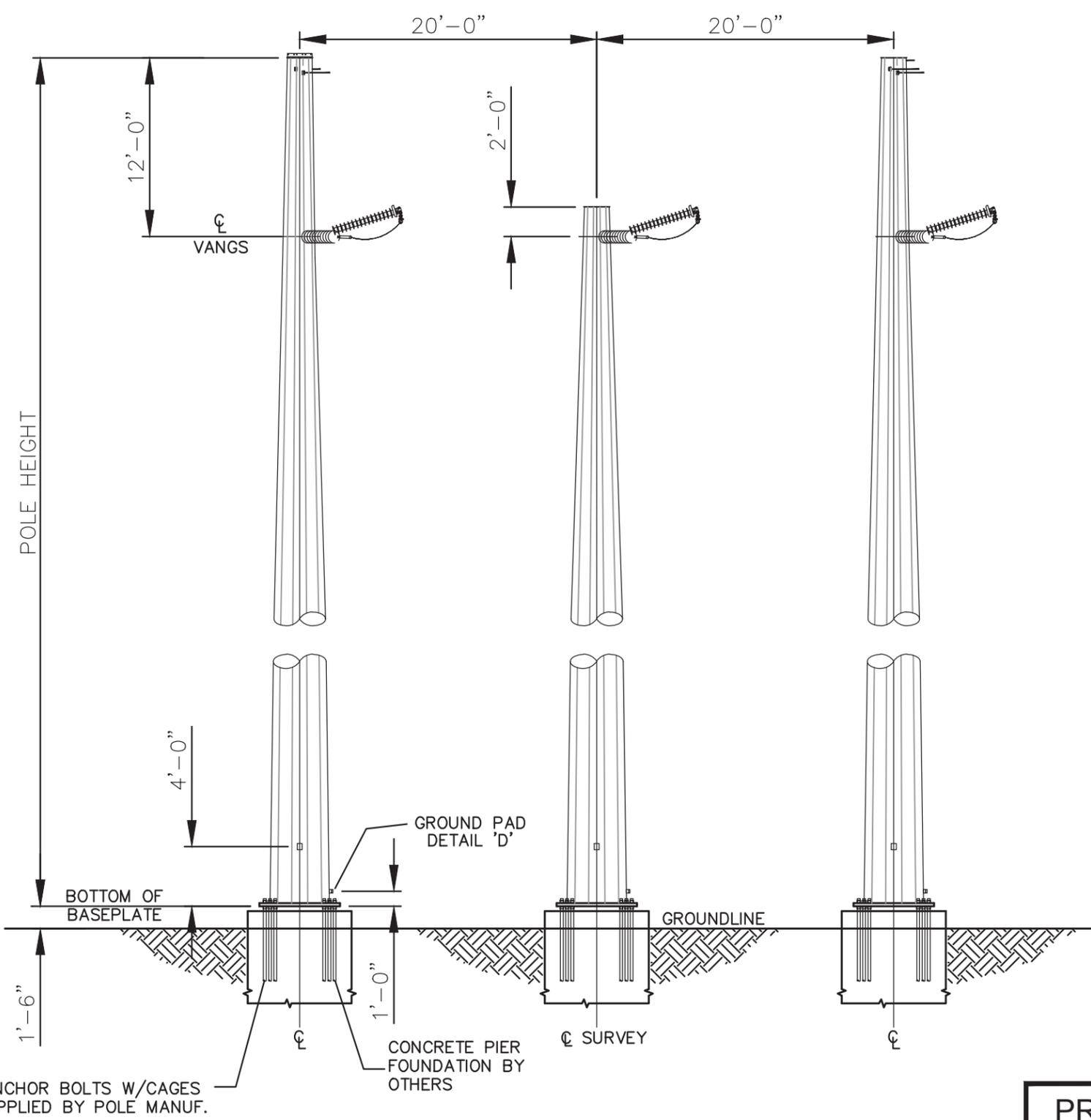


REV	DATE	DESCRIPTION
A	10/13/11	ISSUED FOR REVIEW

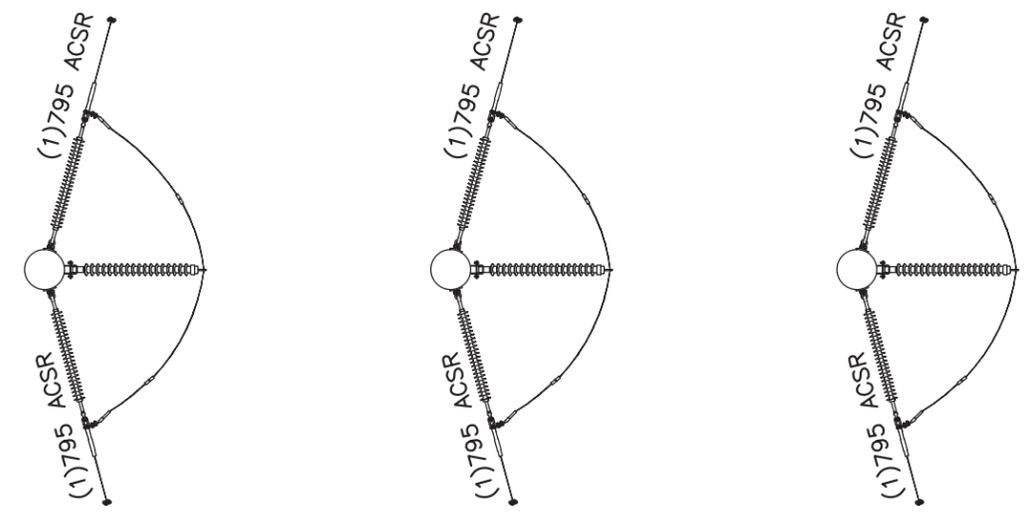
TOLERANCE N/A THICK N/A MATERIAL _____ FINISH _____ WEIGHT _____

DRAWN	CHECKED	DATE	SCALE
MS	KMT	10/12/11	NONE

EXHIBIT 2
230kV Deadend,
25°-90° Single Circuit



STR#	HEIGHT(ft.)
1	70'-70'-70'(no shield)
2	70'-60'-70'
8	70'-60'-70'
9	70'-70'-70'(no shield)



PLAN VIEW

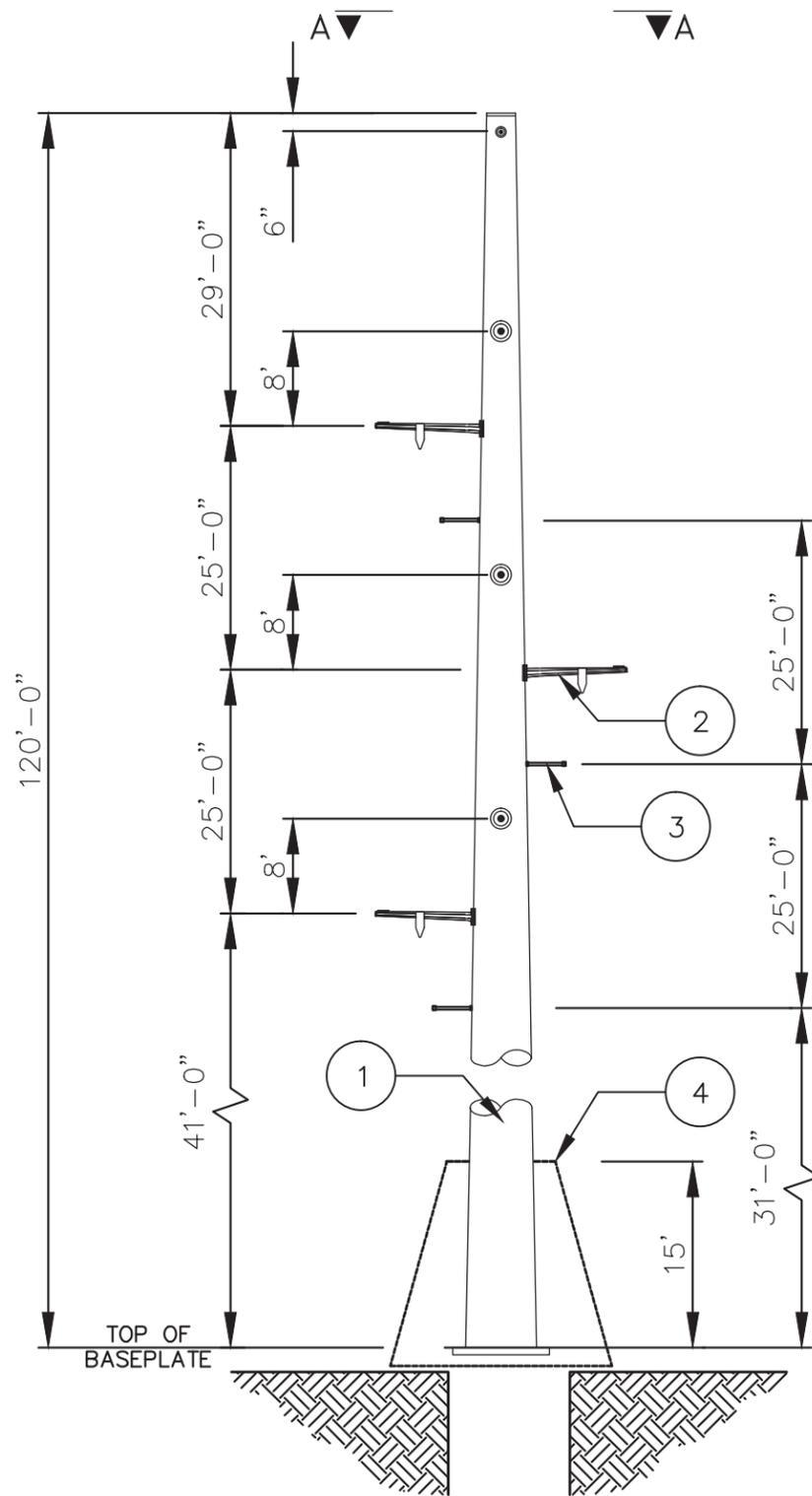
PRELIMINARY

FRAMING: S3DJ-DEP-S-230

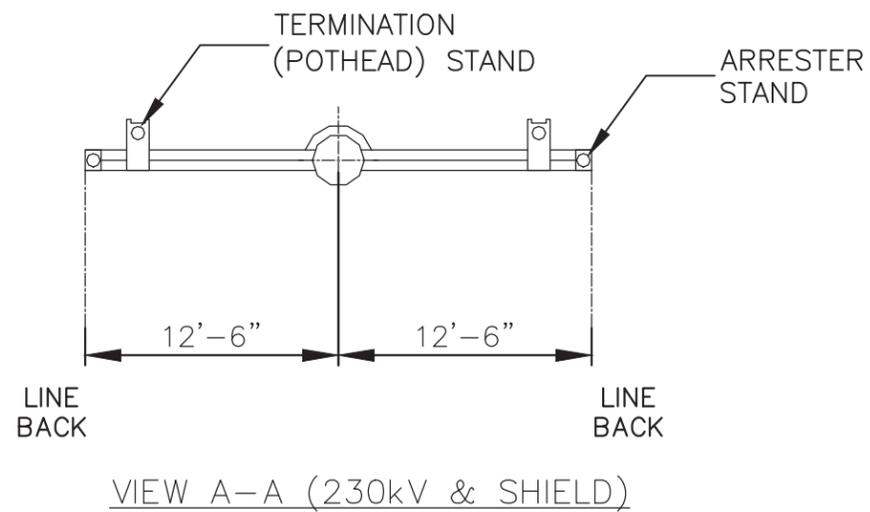


REV	DATE	DESCRIPTION	DRAWN	CHECKED	DATE	SCALE
A	10/13/11	ISSUED FOR REVIEW	MAS	KMT	10/13/11	NONE
TOLERANCE = ____ THICK N/A MATERIAL ____ FINISH ____ WEIGHT ____						

EXHIBIT 2
230kV Transmission
3-Pole De Structure



230kV STEEL CABLE POLE



VIEW A-A (230kV & SHIELD)

BILL OF MATERIAL

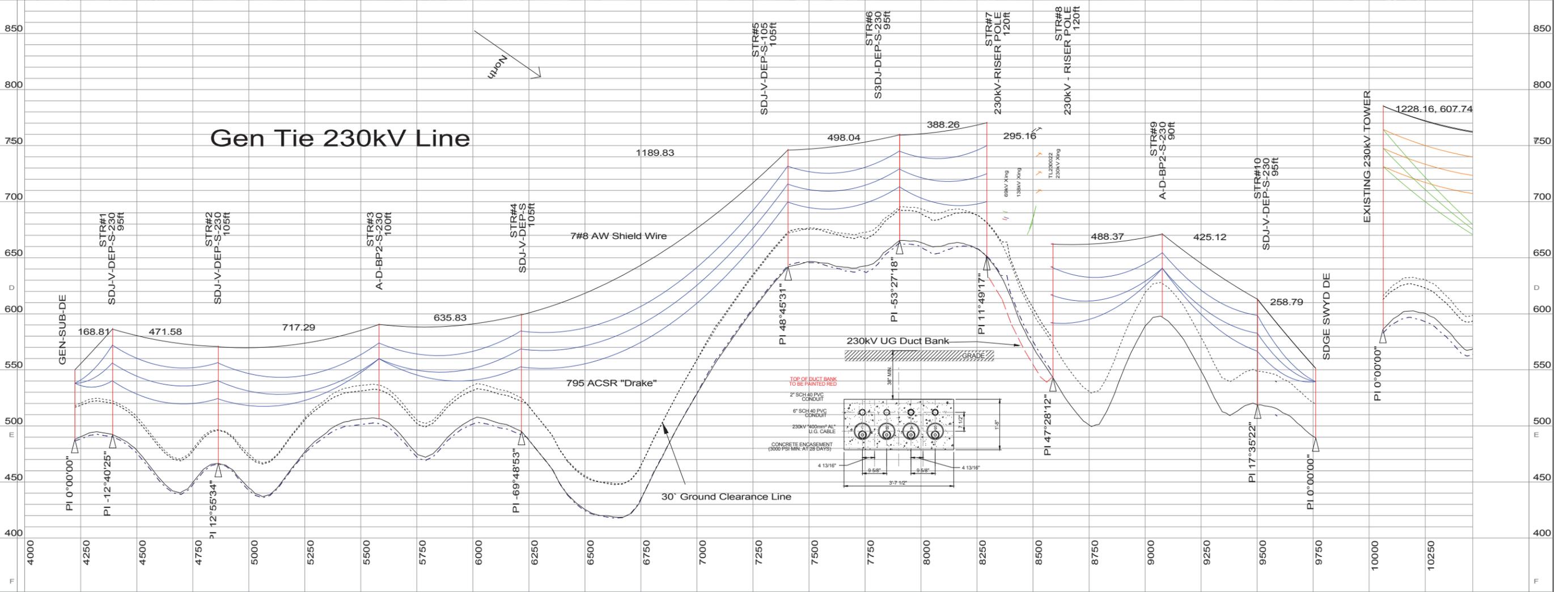
ITEM	QTY#	DESCRIPTION
1	1	230kV CABLE POLE
2	6	POTHEAD/ARRESTER ARM
3	6	CABLE SUPPORT
4	1	CABLE SHROUD

GEN STR#	TIE 230kV LINE HEIGHT(ft.)
7	120'
8	120'

PRELIMINARY



				EXHIBIT 2			
				230kV Transmission			
				Riser Pole			
REV	DATE	DESCRIPTION	DRAWN	CHECKED	DATE	SCALE	
A	10/18/11	ISSUED FOR REVIEW	MAS	KMT	10/18/11	NONE	
TOLERANCE =			THICK	N/A	MATERIAL	FINISH	WEIGHT



PRELIMINARY

NOTES:

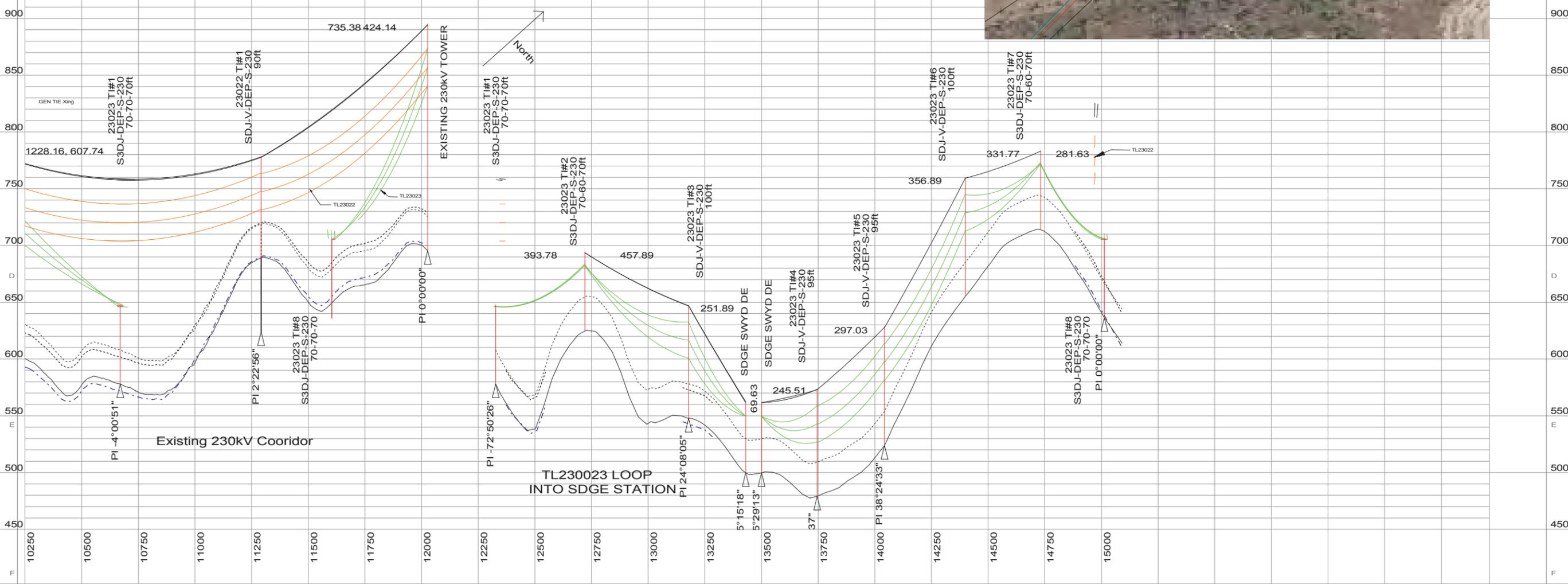
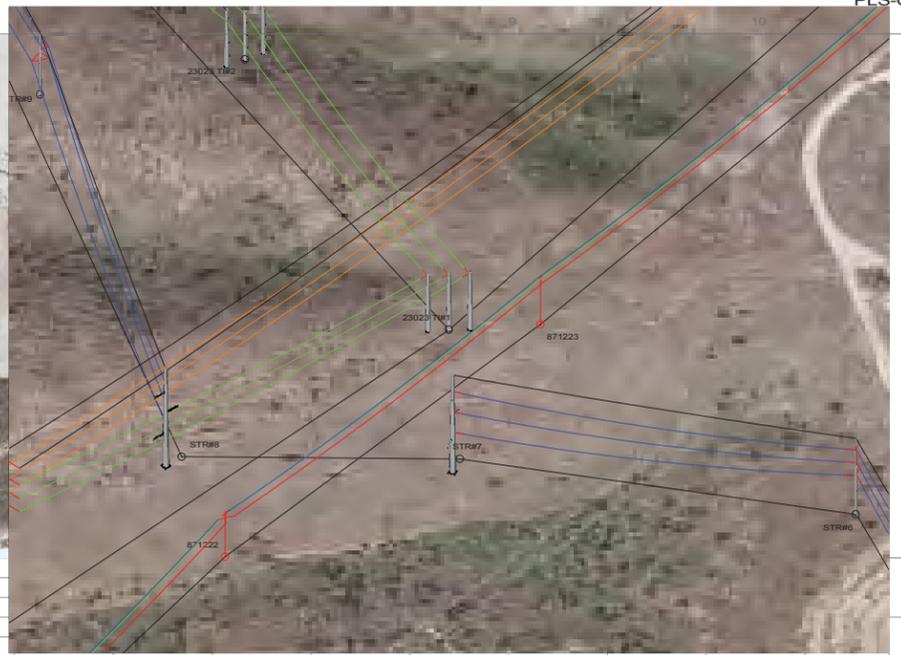
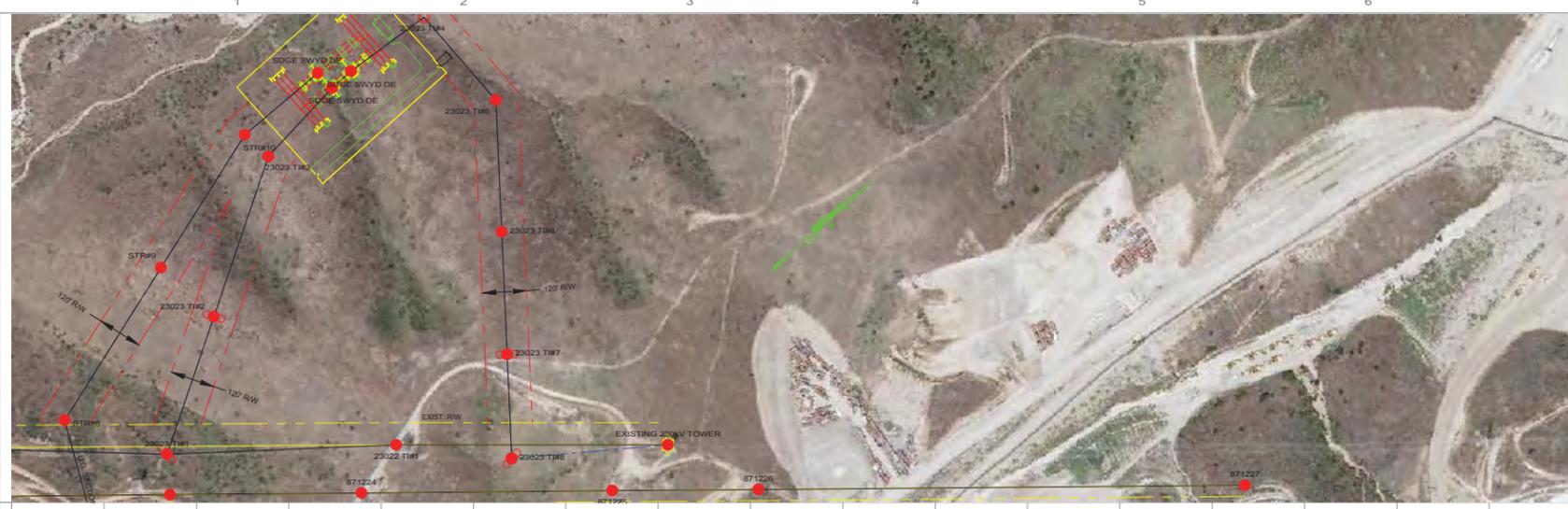
200.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

REV. NO.	DATE	DESCRIPTION	BY	CHK.	APP'D.

REVISIONS
PROPRIETARY NOTICE

DRN:
DSN:
CKD:
ENG'D:
STAMPED BY:
REGISTRATION NO.:
STATE:
C.O.A.:
STATE:

EXHIBIT 3
Quail Brush 230kV
Generation Tie Line
QB230-PP



PRELIMINARY

NOTES:

200.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

REV. NO.	DATE	DESCRIPTION	BY	CHK.	APVD.

REVISIONS
PROPRIETARY NOTICE

DRN:
DSN:
CKD:
ENG'D:
STAMPED BY:
REGISTRATION NO.:
STATE:
C.O.A.:
STATE:

EXHIBIT 3
Quail Brush 230kV
Generation Tie Line

SCALE: DRAWING NO: QB230-PP SHEET: 2 of 2

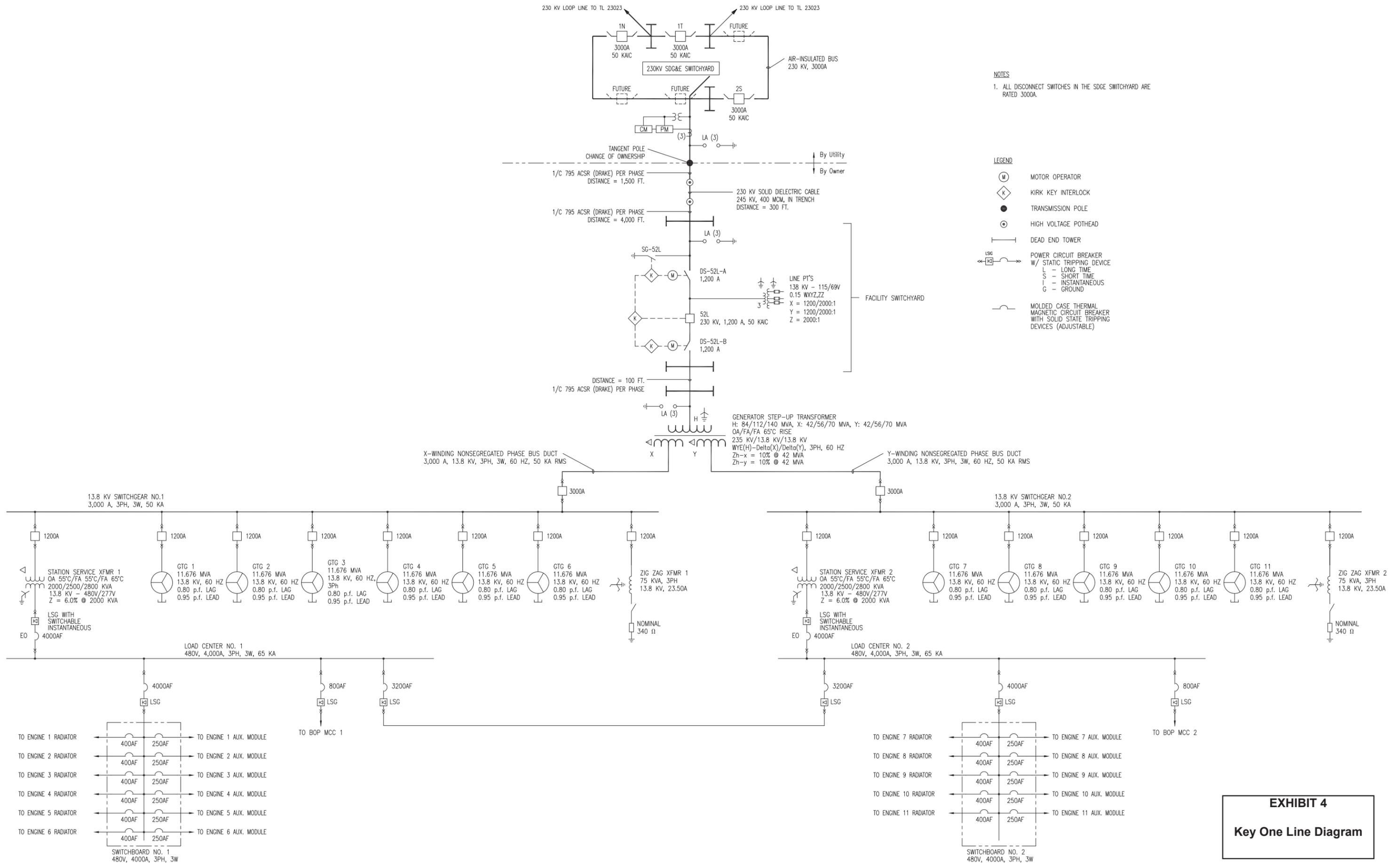


EXHIBIT 4
Key One Line Diagram

ing customers can view and print check images that have cleared since their last statement.



Check Images

ENPEX CORPORATION 2500 750-8500 1200 STRATFORD COURT DELEWARE, CA 90714		WELLS FARGO BANK, N.A. 16-881220	3553
PAY *****TWO HUNDRED FIFTY THOUSAND AND 00/100 DOLLARS*****		DATE	AMOUNT
TO THE ORDER OF	California I S O	Jan 28 10	*0250,000.00*
California I S O California Independent System Operator 151 Blue Ravine Road Folsom, CA 95630		Memo: Refundable Deposit SDCPF	
#003553# 4122000247CD77301577#		/0075000000/	

1260112363	0000 4138	35 71 717 1210 24
PART OF ORDER OF WELLS FARGO BANK, N.A. FOR DEPOSIT ONLY CASH ON HAND SERIAL NUMBER 1260112363		

DEF#9218090229 CW# 3553 250000.00

EXHIBIT 7 Proof of Payment

TETRA TECH EC, INC.