

## **Appendix C    BIOLOGICAL RESOURCES TECHNICAL REPORT**







## **Biogas Renewable Generation Project**

Updated Biological Resources Technical  
Report



Report Date

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## Sign-off Sheet

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## Abbreviations

amsl	above mean sea level
BMPs	Best Management Practices
BRTR	Biological Resources Technical Report
BSA	Biological Study Area
CCH	Consortium of California Herbaria
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
MBTA	Migratory Bird Treaty Act
MCVII	Manual of California Vegetation, Volume II
MW	Megawatt
NEPA	National Environmental Policy Act
NPPA	Native Plant Protection Act
Project	Biogas Renewable Generation Project
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SCLF	Scholl Canyon Landfill
SR	California State Route
USACE	United States Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
WEAP	Worker Environmental Awareness Program
WDR	Waste Discharge Requirement
LFG	Landfill Gas



## 1.0 INTRODUCTION

This report is intended to document the biological resources that are associated with the Biogas Renewable Generation Project (Project) located within the Scholl Canyon Landfill (SCLF) in Glendale, California (refer to **Appendix A, Figure 1**). The survey was conducted by Stantec biologists on April 29, 2019, within the approximately 235-acre Project Biological Study Area (BSA), which includes the southern and western sections of the SCLF and adjacent lands proposed for development of the Project components and a surrounding 300-foot buffer area (refer to **Appendix A, Figure 2** for a depiction of the BSA).

Throughout the planning stages for the Project, Stantec biologists conducted several surveys within the BSA to evaluate potential constraints to Project's implementation regarding biological resources. Based on the results of these previous surveys, Stantec prepared an initial Biological Resources Technical Report (BRTR) (Stantec, 2017), dated July 20, 2017, for the Project. This report is based on the results of the most recent (April 29, 2019) biological survey, though the previous analysis was consulted along with other background materials.

### 1.1 PURPOSE OF THE REPORT

This report serves as an update to the existing BRTR prepared by Stantec, dated July 20, 2017. This report describes the existing biological resources and environmental conditions that occur within or adjacent to the BSA with special emphasis on habitat for special-status plant and wildlife species, special-status/sensitive natural communities, and wildlife movement corridors, and evaluates the potential for special-status species to occur within the BSA based on conditions observed in the field.

### 1.2 PROJECT LOCATION

The Project is located within the existing SCLF property, which is located at 3001 Scholl Canyon Road in the City of Glendale, California, approximately one-half mile north of California State Route (SR) 134 (**Appendix A, Figure 1**). The BSA is situated in Township 1 North, Range 13 West of the U.S. Geographical Survey (USGS) Pasadena 7.5-minute topographic quadrangle.

### 1.3 PROJECT DESCRIPTION

The purpose of the Project is to beneficially utilize the methane-rich renewable landfill gas (LFG) produced by the Scholl Canyon Landfill. The Project includes the construction and operation of an approximately 12-megawatt (MW) power generation facility that would utilize LFG as fuel to generate renewable energy (electricity) and associated infrastructure. Project components are depicted in **Appendix A, Figure 2**.



## 2.0 METHODOLOGIES

Stantec biologists have conducted several surveys within the BSA during the Project's planning phase to evaluate potential constraints to its implementation with regard to biological resources. Field evaluations were conducted on October 21, 2015, November 3, 2015, January 15, 2016, and July 11, 2017, with focused rare plant surveys occurring on January 15, April 15, and September 8, 2016. The results of these surveys were presented in a BRTR prepared by Stantec, dated July 20, 2017, that has been used as a baseline for this follow-up survey and updated reporting.

To support the update, Stantec biologists conducted a reconnaissance-level survey on April 29, 2019. Prior to the survey, a preliminary literature review was performed of readily available resources relevant to environmental conditions within the BSA, including the 2017 BRTR. The field assessment included a non-protocol survey for plants, wildlife, and other biological resources and was intended to detect the presence of special-status plant and wildlife species, including nesting birds, where possible. The survey was conducted on foot within the BSA where accessible based on terrain, vegetative cover, and availability of public access.

### 2.1 LITERATURE REVIEW

Stantec biologists conducted a literature search focused on the BSA prior to the field survey. The BSA is located within the USGS Pasadena, California, 7.5-minute topographic quadrangle. A search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) was conducted for this quadrangle to determine special-status plants, wildlife, and vegetation communities that have been documented within the vicinity of the BSA (CDFW, 2019). The following eight adjacent quadrangles were also included in the database search to encompass potential occurrences of special-status species in the region surrounding the BSA:

- Sunland
- Condor Peak
- Chilao Flat
- Burbank
- Mount Wilson
- Hollywood
- Los Angeles
- El Monte

Additional data regarding the potential occurrence of special-status species and policies relating to these special-status natural resources were gathered from the following sources:

- State and federally listed endangered and threatened animals of California (CDFW, 2018b);
- Special Animals List (CDFW, 2018c);
- List of California Sensitive Natural Terrestrial Communities (CDFW, 2018d);
- Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2018); and
- Consortium of California Herbaria (CCH, 2018).

### 2.2 HABITAT ASSESSMENT AND BIOLOGICAL SURVEYS

#### 2.2.1 Site Reconnaissance and Wildlife Surveys

In order to document the environmental conditions, present within the BSA, Stantec conducted a habitat assessment and reconnaissance-level survey on April 29, 2019. The primary goal of this survey was to identify and assess habitat



that may be capable of supporting special-status plant or wildlife species and determine the potential need for additional focused surveys for special-status resources. Biologists also recorded all incidental plant and wildlife observations, but this assessment did not include focused, protocol-level surveys for rare plants or other special-status resources.

The BSA was investigated on foot by experienced field biologists walking meandering transects through accessible portions of the BSA at an average pace of approximately 1.5 kilometer/hour while visually scanning for wildlife and their sign and listening to wildlife songs and calls. Biologists halted approximately every 50 meters to listen for wildlife or as necessary to identify, record, or enumerate any detected species. Terrestrial insects and other invertebrates were searched for on flowers and leaves, under loose bark, and under stones and logs on the ground throughout the BSA. Randomly selected areas within appropriate micro habitats (e.g., leaf litter, woody debris piles, etc.) were hand raked or visually inspected to determine the presence/absence of gastropods, reptiles, small mammals, and amphibians. Species present were identified and recorded through direct visual observation, sound, or their sign (e.g., scat, tracks, etc.) and all potential refugia sites search were returned to their original state upon completion of inspection. Species identifications conform to the most up-to-date field guides and technical literature.

The survey was conducted during the recognized bird breeding/nesting season and time of day when resident and migratory birds would be expected to be present and potentially exhibiting nesting activity, small mammals would be active and detectable visually or by sign, and above-ground amphibian and reptile movement would generally be detectable. However, it should be noted that some wildlife species and/or individuals may have been difficult to detect due to their elusive nature, cryptic morphology, or nocturnal behavior. Surveys were conducted during daylight hours when temperatures were such that reptiles and other wildlife would be active (i.e., between 65-95° Fahrenheit).

### 2.2.2 Vegetation Mapping

Vegetation mapping was conducted concurrently with the reconnaissance survey. Vegetation descriptions and nomenclature are based on Sawyer et al. (2009), where applicable, and have been defined at least to the alliance level. Vegetation maps were prepared by recording tentative vegetation type boundaries over recent aerial photograph base maps using the Esri® Collector for ArcGIS app on an Apple® iPad® coupled with a Bad Elf® GNSS Surveyor sub-meter external global positioning system (GPS) unit. Mapping was further refined in the office using ArcGIS (version 10.4) with aerial photograph base maps with an accuracy of one foot. Most boundaries shown on the maps are accurate within approximately three feet; however, boundaries between some vegetation types are less precise due to difficulties interpreting aerial imagery and accessing stands of vegetation.

Vegetation communities can overlap in many characteristics and over time may shift from one community type to another. Note also that all vegetation maps and descriptions are subject to variability for the following reasons:

- In some cases, vegetation boundaries result from distinct events, such as wildfire or flooding, but vegetation types usually tend to intergrade on the landscape, without precise boundaries between them. Even distinct boundaries caused by fire or flood can be disguised after years of post-disturbance succession. Mapped boundaries represent best professional judgment, but usually should not be interpreted as literal delineations between sharply defined vegetation types.
- Natural vegetation tends to exist in generally recognizable types, but also may vary over time and geographic region. Written descriptions cannot reflect all local or regional variation. Many (perhaps most)



stands of natural vegetation do not strictly fit into any named type. Therefore, a mapped unit is given the best name available in the classification system being used, but this name does not imply that the vegetation unambiguously matches written descriptions.

- Vegetation tends to be patchy. Small patches of one named type are often included within larger stands mapped as units of another type.



## 3.0 REGULATORY ENVIRONMENT

### 3.1 FEDERAL REGULATIONS

#### 3.1.1 Federal Endangered Species Act

Federal Endangered Species Act (ESA) provisions protect federally listed threatened and endangered species and their habitats from unlawful take and ensure that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Under the ESA, “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” The U.S. Fish & Wildlife Service’s (USFWS) regulations define harm to mean “an act which actually kills or injures wild-life.” Such an act “may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR § 17.3). Critical habitat is defined in Section 3(5)(A) of the ESA as “(i) the specific areas within the geographical area occupied by the species on which are found those physical or biological features (I) essential to the conservation of the species, and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species upon a determination by the Secretary of Commerce or the Secretary of the Interior (Secretary) that such areas are essential for the conservation of the species.” The effects analyses for designated critical habitat must consider the role of the critical habitat in both the continued survival and the eventual recovery (i.e., the conservation) of the species in question, consistent with the Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. USFWS*. Activities that may result in “take” of individuals are regulated by the USFWS. The USFWS produced an updated list of candidate species December 6, 2007 (72 FR 69034). Candidate species are not afforded any legal protection under ESA; however, candidate species typically receive special attention from Federal and State agencies during the environmental review process.

#### 3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter or “take” any migratory bird listed in Title 50 of the Code of Federal Regulations Part 10. “Take” is defined as possession or destruction of migratory birds, their nests or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. The MBTA prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary. This act encompasses whole birds, parts of birds, and bird nests and eggs.

#### 3.1.3 Bald and Golden Eagle Protection Act of 1940 (16 USC 668)

The Bald Eagle Protection Act of 1940 (16 U.S.C. 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. Take of bald and golden eagles is defined as follows: “disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (72 FR 31132; 50 CFR 22.3).



The USFWS is the primary federal authority charged with the management of golden eagles in the United States. A permit for take of golden eagles, including take from disturbance such as loss of foraging habitat, may be required if this Project affects such resources. USFWS guidance on the applicability of current Eagle Act statutes and mitigation is currently under review. On November 10, 2009, the USFWS implemented new rules (74 FR 46835) governing the “take” of golden and bald eagles. The new rules were released under the existing Bald and Golden Eagle Act which has been the primary regulation protection unlisted eagle populations since 1940. All activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this act. The definition of disturb (72 FR 31132) includes interfering with normal breeding, feeding, or sheltering behavior to the degree that it causes or is likely to cause decreased productivity or nest abandonment. If a permit is required, due to the current uncertainty on the status of golden eagle populations in western United States, it is expected permits would only be issued for safety emergencies or if conservation measures implemented in accordance with a permit would result in a reduction of ongoing take or a net take of zero.

### **3.1.4 Federally Regulated Habitats**

Areas meeting the regulatory definition of “Waters of the U.S.” (Jurisdictional Waters) are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (CWA) (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as “Waters of the U.S.,” tributaries of waters otherwise defined as “Waters of the U.S.,” the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to “Waters of the U.S.” (33 CFR, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). The BSA falls within the South Pacific Division of the USACE and is under the jurisdiction of the Los Angeles District.

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit would be effective in the absence of State water quality certification pursuant to Section 401 of the CWA. As a part of the permit process the USACE works directly with the USFWS to assess potential project impacts on biological resources.

## **3.2 STATE REGULATIONS**

### **3.2.1 California Environmental Quality Act**

The California Environmental Quality Act (CEQA) establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by State lead agencies. Regulations for implementation are found in the State CEQA Guidelines published by the Resources Agency. These guidelines establish an overall process for the environmental evaluation of projects.

### **3.2.2 California Endangered Species Act**

Provisions of the California Endangered Species Act protect State-listed Threatened and Endangered species. The CDFW regulates activities that may result in “take” of individuals (“take” means “hunt, pursue, catch, capture, or kill,



or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the California Fish and Game Code. Additionally, the California Fish and Game Code contains lists of vertebrate species designated as “fully protected” (California Fish & Game Code §§ 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], 5515 [fish]). Such species may not be taken or possessed.

In addition to Federal and State-listed species, the CDFW also has produced a list of Species of Special Concern to serve as a “watch list.” Species on this list are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

Birds of prey are protected in California under the State Fish and Game Code. Section 3503.5 states it is “unlawful to take, possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the CDFW. Under Sections 3503 and 3503.5 of the State Fish and Game Code, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to Fish and Game Code Section 3800 are prohibited.

### **3.2.3 Native Plant Protection Act (Fish & Game Code 1900-1913)**

California’s Native Plant Protection Act (NPPA) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The Applicant is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

### **3.2.4 Section 3503 & 3503.5 of the Fish and Game Code**

Under these sections of the Fish and Game Code, the Applicant is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory non-game bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to Fish and Game Code Section 3800.

### **3.2.5 Porter-Cologne Water Quality Control Act**

Regional Water Quality Control Boards (RWQCBs) regulate the “discharge of waste” to “waters of the State.” All projects proposing to discharge waste that could affect waters of the State must file a waste discharge report with the appropriate regional board. The board responds to the report by issuing waste discharge requirements (WDR) or by waiving WDRs for that project discharge. Both terms “discharge of waste” and “waters of the State” are broadly defined such that discharges of waste include fill, any material resulting from human activity, or any other “discharge.”



Isolated wetlands within California, which are no longer considered “waters of the United States” as defined by Section 404 of the CWA, are addressed under the Porter-Cologne Act.

### 3.2.6 State-Regulated Habitats

The State Water Resources Control Board is the State agency (together with the RWQCBs) charged with implementing water quality certification in California. The BSA falls under the jurisdiction of the Santa Ana RWQCB.

The CDFW extends the definition of stream to include “intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS-defined), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife” (CDFW, 1994).

Activities that result in the diversion or obstruction of the natural flow of a stream; or which substantially change its bed, channel, or bank; or which utilize any materials (including vegetation) from the streambed, may require that the project applicant enter into a Streambed Alteration Agreement with the CDFW.

## 3.3 LOCAL REGULATIONS

### 3.3.1 City of Glendale General Plan – Open Space and Conservation Element

The Open Space and Conservation Element of the City of Glendale General Plan contains policies and programs which are designed to identify and manage natural resources within the City. It provides a broad overview of existing conditions, issues, and opportunities and a comprehensive approach to the management of natural resources.

The Policies relative to natural resources that apply to the BSA are as follows:

**Policy 1:** Natural resources, including open spaces, biological habitats, and native plant communities should be maintained and, where necessary, restored.

**Policy 4:** Natural and man-made aesthetic features should be recognized and identified as important natural resources to the community that require proper management.

**Policy 5:** Proper management of environmental resources, especially natural resources, can assist in reducing hazards to the life and property of the City's residents and should be considered in project planning.

**Policy 7:** Projects proposed by public agencies, special districts and private developers should demonstrate compliance with the policies, goals and objectives of this element prior to proceeding.

The Goals and Objectives relative to natural resources that apply to the BSA are as follows:

**Goal 1:** Continue identification, acquisition, and protection of open space land vital to ensure enhancement of the quality of life within the City.

- **Objective 3:** Develop a fee structure for open space acquisition and management in connection with the development review process.



- **Objective 5:** During the environmental and development review processes, on- and off-site impacts of development on open space and related biological and geological systems should be evaluated. Mitigation measures should be applied to alleviate specific impacts through site planning and design modifications that will protect the integrity of valuable open spaces.

**Goal 2:** Protect vital or sensitive open space areas including ridgelines, canyons, streams, geologic formations, watersheds and historic, cultural, aesthetic and ecologically significant areas from the negative impacts of development and urbanization.

- **Objective 3:** Continue to apply and monitor open space protection measures as part of the environmental and development review processes.
- **Objective 5:** During the environmental and development review processes, on- and off-site impacts of development on open space and related biological and geological systems should be evaluated. Mitigation measures should be applied to alleviate specific impacts through site planning and design modifications that will protect the integrity of valuable open spaces.

**Goal 4:** Develop a program that sustains the quality of Glendale's natural communities.

- **Objective 2:** Prevent development that jeopardizes or diminishes the integrity and value of native plant and animal communities.
- **Objective 4:** Naturalize, through native revegetation programs, disturbed areas, and prevent the invasion of exotic plant materials.
- **Objective 5:** Encourage the development of landscape plans that incorporate native species in those areas adjoining open space land.

**Goal 12:** Continue to conserve water resources and provide for the protection and improvement of water quality.

- **Objective 6:** Continue to monitor, inventory land uses and coordinate with the Environmental Protection Agency (EPA) to avoid ground water pollution and improve groundwater quality with particular emphasis on industrial areas and landfills.

### **3.3.2 City of Glendale Indigenous (Protected) Tree Program**

The indigenous oak, bay, and sycamore trees within the city are natural aesthetic resources which help define the character of the city. These trees are worthy of protection in order to preserve the natural environment and to protect the city's native plant life heritage for the benefit of all residents. Oak, bay, and sycamore trees are unique because of their size and beauty and their relative abundance adds distinction and character to certain neighborhoods within the community. It is pertinent to the public interest, health and welfare that these trees be protected from mutilation, indiscriminate cutting, damage, destruction or removal in order to provide for conservation purposes, for counteracting air and noise pollution and minimizing soil erosion and related environmental damage, as well as for the preservation of the natural beauty which the oak, bay, and sycamore trees lend to the city. It is the intent of this ordinance to create favorable conditions for the preservation of indigenous trees in the community while respecting



individual rights to develop, maintain and enjoy private property to the fullest possible extent consistent with the public interest, health and welfare. (Ord. 5719, § 1, 12-7-2010)

Except as provided in sections 12.44.030 and 12.44.060, a permit shall be required of any person who proposes to cut, remove, encroach upon, or relocate a protected indigenous tree. (Ord. 5719, § 1, 12-7-2010)

### **3.4 OTHER APPLICABLE REGULATIONS, PLANS, AND STANDARDS**

#### **3.4.1 California Native Plant Society Rare Plant Program**

The mission of the CNPS Rare Plant Program is to develop current, accurate information on the distribution, ecology, and conservation status of California's rare and endangered plants, and to use this information to promote science-based plant conservation in California. Once a species has been identified as being of potential conservation concern, it is put through an extensive review process. Once a species has gone through the review process, information on all aspects of the species (e.g., listing status, habitat, distribution, threats, etc.) are entered into the online CNPS Inventory and given a California Rare Plant Rank (CRPR). In 2011, the CNPS officially changed the name "CNPS List" to "CRPR." The Program currently recognizes more than 1,600 plant taxa (species, subspecies and varieties) as rare or endangered in California.

Vascular plants listed as rare or endangered by the CNPS, but which might not have a designated status under State endangered species legislation, are defined by the following CRPR:

- CRPR 1A - Plants considered by the CNPS to be extinct in California
- CRPR 1B - Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2 - Plants rare, threatened, or endangered in California, but more numerous elsewhere
- CRPR 3 - Plants about which we need more information – a review list
- CRPR 4 - Plants of limited distribution – a watch list

In addition to the CRPR designations above, the CNPS adds a Threat Rank as an extension added onto the CRPR and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered. These are described as follows:

- 0.1 – Seriously threatened in California (high degree/immediacy of threat)
- 0.2 – Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3 – Not very threatened in California (low degree/immediacy of threats or no current threats known)



## 4.0 EXISTING CONDITIONS

### 4.1 SETTING

The BSA is located within the City of Glendale, just south of Flint Peak in the San Rafael Hills to the north of SR 134. The BSA ranges in elevation from approximately 940 feet (~286 meters) above mean sea level (amsl) along Glenoaks Canyon Drive at the western boundary of the BSA to 1,530 feet (~466 meters) amsl at its southeastern extent. The majority of the lands within the BSA are developed with active and reclaimed areas of the landfill occupying a significant portion of the BSA and other urban infrastructure including residential developments, roadways, and recreational open space. The slopes along the northern and southern edges of the BSA are undeveloped and support swathes of relatively undisturbed native habitat as described in further detail below.

The lands immediately surrounding the BSA primarily consist of open space within the San Rafael Hills, though residential developments about the SCLF to the west and northeast. Beyond the buffer of relatively undeveloped hillside encircling the SCLF, the region is significantly built out with urban infrastructure, thus creating a small “island” of the San Rafael Hills that includes areas of undisturbed native habitat.

### 4.2 VEGETATION COMMUNITIES AND LAND COVER TYPES

Generally, mapping and description of plant communities follows the classification system described in the second edition of A Manual of California Vegetation (MCVII) (Sawyer et al., 2009). As defined in MCVII, an alliance is defined as “a category of vegetation classification which describes repeating patterns of plants across a landscape. Each alliance is defined by plant species composition, and reflects the effects of local climate, soil, water, disturbance, and other environmental factors.” Vegetation communities and land cover types mapped within the BSA are presented below in **Table 1**. It should be noted that due to changes in the nomenclature for some of the vegetation communities mapped within the BSA, as well as minor variations in site conditions, the names of mapped vegetation community and land cover types from the 2019 surveys do not always match those from the 2017 surveys. **Table 1** presents a crosswalk of vegetation community and land cover types for ease of comparison (where applicable)

Species scientific and common names correspond to those described in the second edition of The Jepson Manual (Baldwin et al., 2012). Within the BSA, Stantec biologists mapped nine plant communities defined by Sawyer et al. (2009) and two additional land cover types, classified as ornamental woodland and disturbed/developed land. Characteristics of these land cover types are summarized below, and their locations are depicted in **Appendix A, Figure 2**.

**Table 1 Vegetation Communities and Land Cover Types in the BSA**

Vegetation Community / Land Cover Type		Total Acres in Survey Area		Project Impacts			
2019 Survey	2017 Survey	2019 Survey (Acres)	2017 Survey (Acres)	2019 Survey (Acres)*		2017 Survey (Acres)	
				Temp	Perm	Temp	Perm
Annual Brome Grassland	--	10.48	--	0.22	0.80	--	--



Vegetation Community / Land Cover Type		Total Acres in Survey Area		Project Impacts			
Black Sage Scrub	California Encelia-Black Sage Scrub	8.0	5.67	--	--	--	--
California Buckwheat Scrub	--	1.75	--	--	--	--	--
California Sagebrush Scrub	California Sagebrush Scrub	0.44	0.31	--	--	--	--
California Sagebrush-California Buckwheat Scrub	California Buckwheat Scrub	2.84	7.11	--	0.22	0.02	0.29
Chamise chaparral	Scrub Oak - Chamise Chaparral	4.82	2.40	--	--	--	--
Coast live oak woodland	Coast live oak woodland	2.95	1.3	0.00	--	--	--
Fountain Grass Swards	--	14.49	--	0.34	0.03	--	--
Laurel Sumac Scrub	Laurel Sumac Chamise Scrub	70.57	50	0.16	3.21	0.09	0.39
Developed / Disturbed	Cleared / Developed	87.18	86.75	0.91	3.73	1.13	1.45
Ornamental Woodland	Ornamental/ Non- Native	31.75	39.14	0.42	0.03	0.92	0.06
Total		235.27	192.68	2.06	8.01	2.16	2.19

\*These acreages include impacts related to updated Fire Department brush clearance requirements not required as part of the 2017 impact acreage calculations.

**Vegetation Community Descriptions**

**BROMUS (DIANDRUS, HOREDEACEUS) – BRACHYPODIUM DISTACHYON HERBACEOUS SEMI-NATURAL ALLIANCE**

**Annual brome grasslands**

Approximately 10.48 acres of this vegetation community occur within the BSA in several disturbed areas of the SCLF. It was dominated by early successional, non-native, grasses and forbs (90% to 100% absolute aerial coverage), including invasive species such as red brome riggut brome (*Bromus diandrus*), (*Bromus madritensis* var. *rubens*), redstem filaree (*Erodium cicutarium*), California burclover (*Medicago polymorpha*), shortpod mustard (*Hirschfeldia incana*), cheeseweed (*Malva parviflora*), wild radish (*Raphanus sativus*), Russian thistle (*Salsola tragus*), and yellow sweetclover (*Melilotus indica*).

Due to changes in site conditions, expansion of the BSA, and differences in nomenclature, this community was not detailed during the 2017 survey. During the previous survey efforts, the areas comprising this vegetation community were mapped as a mixture of Cleared/Developed Land, Disturbed, Ornamenta/Non-Native, California Sagebrush Scrub, and California Buckwheat Scrub.



### **SALVIA MELLIFERA SHRUBLAND ALLIANCE**

#### **Black sage scrub**

Approximately 8.0 acres of this vegetation community occur within the BSA on a south-facing slope to the west of the SCLF. Black sage (*Salvia mellifera*) is the dominant species with California bush sunflower (*Encelia californica*) being a near co-dominant. Other associated shrub species observed included laurel sumac (*Malosma laurina*), chamise (*Adenostoma fasciculatum*), and the understory in openings within the scrub consisted of native and non-native grasses and forbs common to the BSA.

### **ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE**

#### **California buckwheat scrub**

Approximately 1.75 acres of this habitat type occur in a small area between the SCLF and the golf course to the north. This community appears to occupy a previously disturbed area and is likely the result of a revegetation effort. California buckwheat (*Eriogonum fasciculatum*) is the dominant species, but other species observed included bush monkeyflower (*Mimulus aurantiacus*), black sage, California fuchsia (*Epilobium canum*), sawtooth goldenbush (*Hazardia squarrosa*), and the invasive species fountain grass (*Pennisetum setaceum*) and shortpod mustard (*Hirschfeldia incana*).

### **ARTEMISIA CALIFORNICA SHRUBLAND ALLIANCE**

#### **California sagebrush scrub**

Approximately 0.44 acre of this habitat type occurs within a small, sloped area near the western edge of the BSA, adjacent to E. Glenoaks Boulevard. This disturbed slope has been revegetated with a planting mixture including California sagebrush (*Artemisia californica*) and California buckwheat, though non-native species have since filled in the opening in the shrub layer, including Russian thistle and annual grasses.

### **ARTEMISIA CALIFORNICA – ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE**

#### **California sagebrush – California buckwheat scrub**

Approximately 2.84 acres of this habitat type occur along thin strips of steep, north-facing slopes adjacent to Scholl Canyon Road along the southern border of the SCLF. Within the BSA, these areas are dominated by California sagebrush and California buckwheat though scrub oak (*Quercus berberidifolia*) is also present in the shrub layer along with non-native species including shortpod mustard and Russian thistle, and annual grasses and forbs in the understory.

### **ADENOSTOMA FASCICULATUM SHRUBLAND ALLIANCE**

#### **Chamise chaparral**



Approximately 4.82 acres of this vegetation community occurs on a south facing slope immediately south of the baseball field in the northern portion of the BSA. It is dominated by chamise (*Adenostoma fasciculatum*) with other components of the shrub layer including toyon (*Heteromeles arbutifolia*), California buckwheat, bush monkeyflower, California sagebrush, and hollyleaf cherry (*Prunus ilicifolia*). Understory occupying openings within the shrub layer is comprised primarily of sparse non-native grasses and forbs.

### **QUERCUS AGRIFOLIA WOODLAND ALLIANCE**

#### **Coast live oak woodland**

A small area (approximately 2.95 acres) occupied by this plant community occurs on the north-facing slope between the SCLF and residential area to the west, in the western portion of the BSA. Cover in this area is dominated by coast live oak trees (*Quercus agrifolia*), though toyon and laurel sumac shrubs were also observed interspersed throughout this area.

### **PENNISETUM SETACEUM HERBACEOUS SEMI-NATURAL ALLIANCE**

#### **Fountain grass swards**

Within the BSA, approximately 14.49 acres of this community occurs on the slopes of a reclaimed area of the SCLF in the northern portion of the BSA, to the south of the golf course. The reclamation process appears to have included revegetation of the slopes with a planting mixture consisting of non-native fountain grass. This perennial species is known to become invasive in southern California and it has come to dominate this area. Native species are also present at lower cover, including California buckwheat, sawtooth goldenbush, and California fuchsia.

Due to changes in site conditions, expansion of the BSA, and differences in nomenclature, this community was not detailed during the 2017 survey. During the previous survey efforts, the areas comprising this vegetation community were mapped as a mixture of Cleared/Developed Land, Ornamenta/Non-Native, and California Buckwheat Scrub.

### **MALOSMA LAURINA SHRUBLAND ALLIANCE**

#### **Laurel sumac scrub**

This is the most prominent native plant community within the BSA, approximately 70.57 acres of which occur along the hillsides bordering the southern and northern boundaries of the BSA. Laurel sumac is nearly co-dominant with chamise throughout these areas. Other associated species observed included lemonade berry (*Rhus integrifolia*), toyon, purple sage (*Salvia leucophylla*), black sage, deerweed (*Acmispon glaber*), bush monkeyflower, bigpod ceanothus (*Ceanothus megacarpus*), California brickellbush (*Brickellia californica*), and non-native Russian thistle.

#### **Land Cover Type Descriptions**

##### **DEVELOPED/DISTURBED LAND**

This classification, which is not described in the MCVII, was used to map the portions of the BSA (approximately 87.18 acres) that are heavily disturbed and/or developed. Developed/disturbed lands include portions of the SCLF and areas occupied by urban infrastructure such as residential developments, recreational areas (baseball diamond



and golf course), paved areas such as roads and parking lots, and landscaped areas associated with those developments. In general, these areas are populated with ornamental species or are unvegetated. Where vegetation does occur, it is comprised of ornamental species or ruderal pioneer plant species that readily colonize open disturbed soil and thrive as a result of anthropogenic impacts. Some of the plants present within this cover type included red-stem filaree, tocalote (*Centaurea melitensis*), wild oats (*Avena fatua*), and other non-native grasses and forbs.

**ORNAMENTAL WOODLAND**

This classification, which is not described in the MCVII, was used to map approximately 31.75 acres within the central portion of the BSA. This west-facing slope is a reclaimed area of the landfill that has been planted with a variety of ornamental trees including Peruvian pepper (*Schinus molle*), southern silky oak (*Grevillea robusta*), fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.). Other non-native species observed consisted of castor bean (*Ricinis communis*), pampas grass (*Cortaderia selloana*), fountain grass, English plantain (*Plantago lanceolata*), red-stem filaree, lamb’s quarters (*Chenopodium album*), Russian thistle, and annual grasses.

**4.2.1 Plant Species Observed within the BSA**

Plant species observed within the BSA during the April 2019 surveys are listed below in Table 2.

**Table 2 Plant Species Observed within the BSA**

Scientific Name	Common Name
<i>Acacia</i> sp.**	acacia
<i>Acmispon glaber</i>	deerweed
<i>Adenostoma fasciculatum</i>	chamise
<i>Ambrosia psilostachya</i>	western ragweed
<i>Artemisia californica</i>	California sagebrush
<i>Arundo donax</i> **	giant reed
<i>Avena fatua</i> **	common wild oat
<i>Baccharis salicifolia</i>	mule fat
<i>Brickellia californica</i>	California brickellbush
<i>Bromus diandrus</i> **	ripgut brome
<i>Bromus hordeaceus</i> **	soft brome
<i>Bromus madritensis rubens</i> **	foxtail brome
<i>Calystegia</i> sp.	morning glory
<i>Capsella bursa-pastoris</i> **	shepherd’s purse
<i>Carpobrotus edulis</i> **	Hottentot fig
<i>Carduus pycnocephalus</i> **	Italian thistle
<i>Ceanothus megacarpus</i>	bigpod ceanothus
<i>Centaurea melitensis</i> **	Maltese star-thistle
<i>Cercocarpus betuloides</i>	mountain mahogany



Scientific Name	Common Name
<i>Chenopodium album</i> **	lamb's quarters
<i>Cirsium occidentale</i> **	western thistle
<i>Corethrogyne filaginifolia</i>	California aster
<i>Cortaderia selloana</i> **	pampas grass
<i>Cryptantha</i> sp.	cryptantha
<i>Cupressus</i> sp.	cedar
<i>Cuscuta californica</i>	California dodder
<i>Cynodon dactylon</i> **	Bermuda grass
<i>Delphinium</i> sp.	larkspur
<i>Dichelostemma capitatum</i>	blue dicks
<i>Diplacus aurantiacus</i>	sticky monkeyflower
<i>Encelia californica</i>	California bush sunflower
<i>Elymus</i> sp.	wild rye
<i>Epilobium canum</i>	California fuchsia
<i>Erigeron canadensis</i>	horseweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eriophyllum confertiflorum</i>	yellow yarrow
<i>Erodium cicutarium</i> **	redstem filaree
<i>Eucalyptus</i> sp.**	eucalyptus
<i>Festuca perennis</i> **	Italian rye grass
<i>Galium aparine</i>	cleavers
<i>Gazania linearis</i> **	treasure flower
<i>Glebionis coronaria</i> **	crown daisy
<i>Grevillea robusta</i> **	southern silky oak
<i>Hazardia squarrosa</i>	sawtooth goldenbush
<i>Hedera helix</i> **	English ivy
<i>Hedynois cretica</i> **	crete weed
<i>Helianthus annuus</i>	common sunflower
<i>Helminthotheca echioides</i> **	bristly oxtongue
<i>Hesperoyucca whipplei</i>	chaparral yucca
<i>Heteromeles arbutifolia</i>	toyon
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Hirschfeldia incana</i> **	shortpod mustard
<i>Hordeum murinum</i> **	foxtail barley
<i>Keckiella cordifolia</i>	heartleaf keckiella
<i>Lactuca serriola</i> **	prickly lettuce
<i>Lupinus bicolor</i>	miniature lupine
<i>Lysimachia arvensis</i> **	scarlet pimpernel
<i>Malacothrix saxatilis</i>	cliff aster



Scientific Name	Common Name
<i>Malosma laurina</i>	laurel sumac
<i>Malva parviflora</i> **	cheeseweed
<i>Marah macrocarpa</i>	chilicothe
<i>Medicago polymorpha</i> **	burr medic
<i>Melaleuca quinquenervia</i> **	tree
<i>Melaleuca viminalis</i> **	bottlebush tree
<i>Melilotus indica</i> **	yellow sweetclover
<i>Mirabilis laevis</i>	wishbone bush
<i>Nerium oleander</i> **	oleander
<i>Nicotiana glauca</i> **	tree tabacco
<i>Oenothera</i> sp.	evening primrose
<i>Opuntia ficus-indica</i> **	Barbary fig
<i>Pennisetum setaceum</i> **	fountain grass
<i>Phacelia</i> sp.	phacelia
<i>Phacelia cicutaria</i>	caterpillar phacelia
<i>Phoenix canariensis</i> **	Canary Island date palm
<i>Plantago lanceolate</i> **	ribwort plantain
<i>Platanus racemosa</i>	western sycamore
<i>Pinus</i> sp.	pine
<i>Piptatherum miliaceum</i> **	smilo grass
<i>Polygonum aviculare</i> **	postrate knotweed
<i>Prunus ilicifolia</i>	hollyleaf cherry
<i>Pseudognaphalium californicum</i>	California cudweed
<i>Quercus agrifolia</i>	coast live oak
<i>Quercus berberidifolia</i>	scrub oak
<i>Raphanus sativus</i> **	wild radish
<i>Rhamnus ilicifolia</i>	evergreen buckthorn
<i>Rhus ovata</i>	sugar bush
<i>Ricinus communis</i> **	castor bean
<i>Salsola tragus</i> **	prickly Russian thistle
<i>Salvia leucophylla</i>	purple sage
<i>Salvia mellifera</i>	black sage
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry
<i>Schinus molle</i> **	Peruvian pepper tree
<i>Schismus arabicus</i> **	Arabian schismus
<i>Sisymbrium irio</i> **	London rocket
<i>Solanum nigrum</i>	black nightshade
<i>Sonchus asper</i> **	spiny sowthistle
<i>Sonchus oleraceus</i> **	common sowthistle



Scientific Name	Common Name
<i>Stephanomeria virgata</i>	rod wirelettuce
<i>Ulmus parvifolia</i>	Chinese elm
<i>Verbascum speciosum</i> **	showy mullein
<i>Washingtonia filifera</i>	California palm

\*No special-status species were observed in the Study Area

\*\*Non-native Species

### 4.3 SOILS

Prior to conducting the April 2019 surveys, historic soils data from the Natural Resources Conservation Service (NRCS) was used to determine potential soil types that may occur within the BSA and included determining where hydric soils have historically occurred (refer to **Appendix A, Figure 3**). **Table 3** identifies the soils historically known to occur within the BSA, none of which appear on the NRCS hydric soils list.

**Table 3 Historic Soil Units Occurring within the BSA**

Map Unit Symbol	Map Unit Name	Description	Acres Within BSA
1002	Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes	A well-drained soil that occurs on alluvial fans at elevations between 240 to 1,990 feet; parent material consists of discontinuous human-transported material over alluvium derived from granite; very high runoff; ranging from fine sandy loam to loamy sand (0 to 79")	7.23
1148	Vista-Fallbrook-Cieneba complex, 30 to 75 percent slopes	A well-drained soil that occurs on hillslopes at elevations between 590 to 2,610 feet; parent material consists of colluvium and/or residuum weathered from diorite; medium to high runoff; sandy clay loam (0- up to 58"), underlain by bedrock	77.90
1280	Dumps	NA	150.14
Total			235.27

### 4.4 JURISDICTIONAL WATERS/WETLANDS

The National Wetlands Inventory has mapped R4SBA (Riverine, Intermittent, Streambed, Temporary Flooded) habitat within the BSA that consist of the headwaters in the hills along its southern boundary (data is dated March 2006). While a formal delineation of jurisdictional waters has not been conducted, the south-facing canyons in this area of the BSA did support conditions indicative of this type of feature, with flows originating from within the BSA entering into the storm drain system adjacent to the Eagle Rock Reservoir and likely ending up in the Arroyo Seco. Additionally, concrete-lined drainage channels were observed throughout the landfill and reclaimed areas that contribute flows to the stormwater conveyance system through Scholl Canyon, downslope of the SCLF, and ultimately into the Verdugo Wash. Based on field observations, the concrete-lined channels and headwaters described above may qualify as USACE/RWQCB non-wetland waters of the U.S. and/or CDFW jurisdictional waters.

Two concrete-lined drainage channels occur within the proposed Project footprint: one to the south of the golf course and another just west of the proposed power plant facility. Although a formal delineation was not conducted,



potentially jurisdictional features mapped within the BSA included approximately 0.21 acres of CDFW jurisdictional waters and 0.20 acres of non-wetland “Waters of the United States.” The Project has proposed to install all gas and water lines either above or below any potentially jurisdictional features; therefore there would be no impacts to potentially jurisdictional feather.

## 4.5 COMMON WILDLIFE

This section describes the common wildlife observed during the reconnaissance survey and expected to occur within the BSA based on habitat characteristics and species known to occur in the region. All wildlife observed during the survey are listed in **Table 4**.

### 4.5.1 Invertebrates and Gastropods

A focused insect survey was not performed within the BSA; however, a variety of common insects are known to occur in the area. Habitat conditions in the BSA provide a suite of microhabitat conditions for a wide variety of terrestrial insects and other invertebrates. As in all ecological systems, invertebrates in the BSA play a crucial role in a number of biological processes. They serve as the primary or secondary food source for a variety of bird, reptile, and mammal predators; they provide important pollination vectors for numerous plant species; they act as efficient components in controlling pest populations; and they support the naturally occurring maintenance of an area by consuming detritus and contributing to necessary soil nutrients. The reconnaissance survey of the BSA detected a wide variety of common and non-native invertebrates. Some of the orders identified in the BSAs included *Hemiptera* (true bugs), *Coleoptera* (beetles), *Diptera* (flies), *Lepidoptera* (moths and butterflies), *Hymenoptera* (wasps, bees and ants), and *Orthoptera* (grasshoppers).

### 4.5.2 Fish

Based on the historic land uses and topography within the BSA, fish are not expected to occur nor were any observed during the 2019 surveys.

### 4.5.3 Amphibians

Amphibians often require a source of standing or flowing water to complete their life cycle; however, some terrestrial species can survive in drier areas by remaining in moist environments found beneath leaf litter and fallen logs, or by burrowing into the soil. Amphibian species were not observed during the reconnaissance surveys within the BSA. Their potential to occur within much of the BSA is greatly reduced because of the continual disturbance associated with the land use. However, they may inhabit other less disturbed areas within the BSA, such as the slopes surrounding SCLF. Species not observed in the BSA but known to occur in the region include the Baja California treefrog (*Pseudacris hypochondriaca*), western toad (*Anaxyrus boreas*), and the non-native bullfrog (*Lithobates catesbeiana*). These species all require aquatic habitat for all or part of their life cycle, which is only present during and immediately after substantial rain events, and therefore are not likely to occur within the BSA outside of the rainy season, generally from November through March. These species are highly cryptic and often difficult to detect. Downed logs, bark, and other woody material in various stages of decay (often referred to as coarse woody debris), present in a limited section of the BSA, could provide shelter and feeding sites for a variety of wildlife, including amphibians and reptiles (Maser and Trappe, 1984; Aubry et al., 1988).



#### 4.5.4 Reptiles

The number and type of reptile species that may occur at a given site is related to a number of biotic and abiotic features. These include the diversity of plant communities, substrate, soil type, and presence of refugia such as rock piles, boulders, and native debris. Weather conditions were favorable during the survey for reptile activity.

The only reptiles observed during the site reconnaissance were a single western fence lizard (*Sceloporus occidentalis*) and western rattlesnake (*Crotalus viridis*). Although not observed, several other common reptiles likely occur in the BSA. Many reptile species, even if present, are difficult to detect because they are cryptic and their life history characteristics (e.g., foraging, thermoregulatory behavior, fossorial nature, camouflage etc.) limit their ability to be observed during most surveys. Further, many species are only active within relatively narrow thermal limits, avoiding both cold and hot conditions, and most take refuge in microhabitats that are not directly visible to the casual observer, such as rodent burrows, in crevices, under rocks and boards, and in dense vegetation where they are protected from unsuitable environmental conditions and predators (USACE and CDFG, 2010). In some cases, they are only observed when flushed from their refugia. Although other reptiles were not detected, suitable habitat conditions for a number of common reptiles were observed within the BSA at the time of the survey. Other species that may occur in limited areas within the BSA based on the presence of suitable habitat include western skink (*Plestiodon skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), and San Diego gopher snake (*Pituophis catenifer annectens*).

#### 4.5.5 Birds

Birds were identified by sight and sound and were observed throughout the BSA. Some of these included mourning dove (*Zenaida macroura*), California towhee (*Melospiza crissalis*), house finch (*Haemorhous mexicanus*), Allen's hummingbird (*Selasphorus sasin*), western kingbird (*Tyrannus verticalis*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma californica*), and common raven (*Corvus corax*). All avian species identified in the BSA during the biological survey are listed in **Table 3**. It is possible that many other birds use the BSA either as wintering habitat, seasonal breeding, or as occasional migrants. Species known to occur commonly in the vicinity of the BSA but not observed during the April 2019 survey include California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus branchyrhynchos*), cedar waxwing (*Bombycilla cedrorum*), bushtit (*Psaltriparus minimus*), lesser goldfinch (*Spinus psaltria*), and white-throated swift (*Aeronautes saxitalis*).

#### 4.5.6 Mammals

Generally, the distribution of mammals on a given site is associated with the presence of factors such as access to perennial water, topographical and structural components (e.g., rock piles, vegetation) that provide cover and support prey base, and the presence of suitable soils for fossorial mammals (e.g., sandy areas). No mammal species were observed during the biological survey within the BSA. Though not observed, a number of common mammals habituated to urban environments may occur within the BSA, including California ground squirrel (*Otospermophilus beecheyi*), Audubon's cottontail (*Sylvilagus audubonii*), Virginia opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Although bats were not detected in the BSA, they likely forage and roost in the riparian corridors in the region where insect abundance is high (CDFW, 2000). Because this type of foraging habitat does not occur in the BSA, it is unlikely that bats permanently inhabit or forage in significant numbers within the BSA.



### 4.5.7 Wildlife Species Observed within the BSA

Wildlife species observed within the BSA during the April 2019 surveys are listed below in Table 4.

**Table 4 Wildlife Species Observed within the BSA**

Scientific Name	Common Name
<i>Aphelocoma californica</i>	scrub jay
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Callipepla californica</i>	California quail
<i>Canis latrans</i>	coyote
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
<i>Crotalus viridis</i>	western rattlesnake
<i>Haemorhous mexicanus</i>	house finch
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	northern mockingbird
<i>Pipilo maculatus</i>	spotted towhee
<i>Procyon lotor</i>	raccoon
<i>Selasphorus sasin</i>	Allen’s hummingbird
<i>Sceloporus occidentalis</i>	western fence lizard
<i>Spinus psaltria</i>	lesser goldfinch
<i>Sylvilagus audubonii</i>	Audubon’s cottontail
<i>Tyrannus verticalis</i>	western kingbird
<i>Zenaidura macroura</i>	mourning dove

\*No special-status species were observed in the BSA at the time of the survey.

## 5.0 SPECIAL STATUS BIOLOGICAL RESOURCES

The background information presented above, combined with field observations taken during the survey, was used to generate a list of special-status natural communities and special-status plant and animal taxa that either occur or may have the potential to occur within the BSA and/or adjacent habitats. For the purposes of this report, special-status taxa are defined as plants or animals that:

- Have been designated as either rare, threatened, or endangered by CDFW or the USFWS, and are protected under either the California or Federal ESAs;
- Are candidate species being considered or proposed for listing under these same acts;
- Are recognized as Species of Special Concern by the CDFW;
- Are ranked as CRPR 1, 2, 3 or 4 plant species;
- Are fully protected by the California Fish and Game Code, Sections 3511, 4700, 5050, or 5515; or
- Are of expressed concern to resource/regulatory agencies, or local jurisdictions.



## 5.1 SPECIAL-STATUS NATURAL COMMUNITIES

Special-status natural communities are defined by CDFW (2009) as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." All vegetation within the state is ranked with an "S" rank; however, only those that are of special concern (S1-S3 rank) are generally evaluated under CEQA. No such communities occur within the BSA. The BSA does not occur within an area covered by any Natural Community Conservation Plan and/or Habitat Conservation Plan.

While coast live oak woodland occurs within the BSA, it has a S4 rank which is not generally evaluated under CEQA. The City of Glendale however has an "Indigenous Tree Ordinance" which provides protection for native California tree species, such as coast live oak and scrub oak, that are 6 or more inches in diameter at breast height (dbh) for single trunk trees and 8 inches dbh for multitrunked trees. Both of these species occur within the BSA.

## 5.2 DESIGNATED CRITICAL HABITAT

Critical habitat is defined by the USFWS (2018b) as "...a term defined and used in the Endangered Species Act. It is specific geographic areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery."

The nearest critical habitat to the BSA is for Santa Ana sucker (*Catostomus santaanae*), which occurs approximately eight miles to the north. The next closest is for Braunton's milk vetch, which occurs approximately ten miles to the east. Neither species is expected to occur within the BSA.

## 5.3 SPECIAL-STATUS PLANTS

**Table 5** presents a list of special-status plants, including federally- and state listed species and CRPR 1-4 species that are known to occur in the vicinity of the BSA. No special-status plant species were observed during any of the reconnaissance-level or focused surveys conducted by Stantec.

Record searches of the CNDDDB, the CNPS Online Inventory, and the Consortium of California Herbaria (CCH) was performed for special-status plant taxa. Each of the taxa identified in the record searches was assessed for their potential to occur within the BSA based on the following criteria:

- **Present:** Taxa were observed within the BSA during recent botanical surveys or population has been acknowledged by CDFW, USFWS, or local experts.
- **High:** Both a documented recent record (within 10 years) exists of the taxa within the BSA or immediate vicinity (approximately 5 miles) and the environmental conditions (including soil type) associated with taxa presence occur within the BSA.
- **Moderate:** Both a documented recent record (within 10 years) exists of the taxa within the BSA or the immediate vicinity (approximately 5 miles) and the environmental conditions associated with taxa presence are marginal and/or limited within the BSA or the BSA is located within the known current distribution of the taxa and the environmental conditions (including soil type) associated with taxa presence occur within the BSA.



- **Low:** A historical record (over 10 years) exists of the taxa within the BSA or general vicinity (approximately 10 miles) and the environmental conditions (including soil type) associated with taxa presence are marginal and/or limited within the BSA.
- **Not Likely to Occur:** The environmental conditions associated with taxa presence do not occur within the BSA.

**Table 5 Known and Potential Occurrences of Special-Status Plant Taxa within the BSA**

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
<i>Acanthoscyphus parishii</i> var. <i>parishii</i> Parish's oxytheca	4.2	Sandy or gravelly. Chaparral, lower montane coniferous forest. 1,220-2,600m.	Jun-Sep	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i> San Gabriel manzanita	1B.2	Chaparral (rocky). 595-1,500 m.	Mar	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is below the species' known elevation range.
<i>Arctostaphylos parryana</i> ssp. <i>tumescens</i> interior manzanita	4.3	Chaparral (montane), cismontane woodland. 2,100-2,310 m.	Feb-Apr	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Arenaria paludicola</i> marsh sandwort	1B.1, FE, SE	Sandy, openings. Marshes and swamps (freshwater or brackish). 3-170m.	May-Aug	<b>Not Likely to Occur</b> Suitable habitat is not present within the BSA.
<i>Asplenium vespertinum</i> western spleenwort	4.2	Rocky. Chaparral, cismontane woodland, coastal scrub 180-1,000 m.	Feb-Jun	<b>Moderate</b> Suitable habitat occurs within the BSA.
<i>Astragalus brauntonii</i> Braunton's milk-vetch	1B.1, FE	Recent burns or disturbed areas, usually sandstone with carbonate layers. Chaparral, coastal scrub, valley and foothill grassland. 4-640 m.	Jan-Aug	<b>Moderate</b> Marginal habitat and disturbed areas occur within the BSA. The nearest recorded occurrence is further than 10 miles from the BSA.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura marsh milk-vetch	1B.1, FE, SE	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish). 1-35 m.	(Jun) Aug-Oct	<b>Not Likely to Occur</b> Suitable habitat is not present within the BSA and the BSA is well below the species' known elevation range.
<i>Atriplex parishii</i> Parish's brittle-scale	1B.1	Alkaline. Chenopod scrub, playas, vernal pools. 25-1,900 meters	Jun-Oct	<b>Not Likely to Occur</b> Suitable habitat is not present within the BSA. The nearest recorded occurrence is approximately 6.6 miles to the west.
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's salt-scale	1B.2	Alkaline. Coastal bluff scrub, coastal scrub. 10-200 meters	Apr-Oct	<b>Not Likely to Occur</b> Suitable habitat does not occur within the BSA. The nearest recorded occurrence is approximately 6.9 miles to the southwest of the BSA; however, this observation is from well over 20 years ago.



Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
<i>Berberis nevinii</i> Nevin's barberry	1B.1, FE, SE	Sandy or gravelly. Chaparral, cismontane woodland, coastal scrub, riparian scrub. 70-825 meters	(Feb) Mar-Jun	<b>High</b> Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.8 miles to the northeast of the BSA; however, this observation is from well over 20 years ago. The most recent observation is from 2010, approximately 6.0 miles to the southwest of the BSA.
<i>Calochortus catalinae</i> Catalina mariposa lily	4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 15-700 meters	(Feb) Mar-Jun	<b>Moderate</b> Suitable habitat occurs within the BSA.
<i>Calochortus clavatus</i> var. <i>gracilis</i> slender mariposa-lily	1B.1	Chaparral, coastal scrub, valley and foothill grassland. 320-1,000 m.	Mar-Jun (Nov)	<b>Moderate</b> Suitable habitat occurs within the BSA. The nearest recorded occurrence is from 2010, approximately 6.7 miles to the west of the BSA.
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa lily	1B.2	Mesic. Chaparral, lower montane coniferous forest, meadows and seeps. 710-2,390 m.	Apr-Jul	<b>Low</b> Suitable mesic conditions do not occur within the BSA.
<i>Calochortus plummerae</i> Plummer's mariposa-lily	4.2	Granitic, rocky. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. 100-1,700 m.	May-Jul	<b>High</b> Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.6 miles to the south of the BSA; however, this observation is from well over 20 years ago. The most recent observation is from 2011, approximately 8.6 miles to the northwest of the BSA.
<i>Calochortus weedii</i> var. <i>intermedius</i> intermediate mariposa lily	1B.2	Rocky, calcareous. Chaparral, coastal scrub, valley and foothill grassland. 105-855 m.	May-Jul	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Calystegia felix</i> lucky morning-glory	1B.1	Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly silty loam and alkaline. Meadows and seeps (sometimes alkaline), riparian scrub (alluvial). 30-215 m.	Mar-Sep	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is slightly higher than this species' known elevation range. The nearest and most recent recorded occurrence is approximately 5.9 miles southwest to the southwest of the BSA; however, this observation is from well over 20 years ago.
<i>Camissoniopsis lewisii</i> Lewis' evening-primrose	3	Sandy or clay. Coastal bluff scrub, cismontane woodland, coastal dune, coastal scrub, valley and foothill grassland. 0-300 m.	Mar-May (Jun)	<b>Moderate</b> Marginal habitat occurs within the BSA.



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Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
<i>Castilleja gleasoni</i> Mt. Gleason paintbrush	1B.2, SR	Granitic. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. 665-2,170 m.	May-Jun (Sep)	<b>Low</b> Marginal habitat occurs within the BSA and the BSA is below this species' known elevation range. The nearest and most recent recorded occurrence is approximately 7.4 miles to the northeast of the BSA; however, this observation is from well over 20 years ago.
<i>Castilleja plagiotoma</i> Mojave paintbrush	4.3	Great Basin scrub (alluvial), Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland. 300-2,500 m.	Apr-Jun	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Centromadia parryi</i> <i>ssp. australis</i> southern tarplant	1B.1	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools. 0-480 m.	May-Nov	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.8 miles to the southwest of the BSA; however, this observation is from well over 20 years ago. The most recent record in the region is from 1997.
<i>Centromadia</i> <i>pungens ssp. laevis</i> smooth tarplant	1B.1	Alkaline. Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. 0-640 m.	Apr-Sep	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this observation is from well over 20 years ago.
<i>Chorizanthe parryi</i> <i>var. fernandina</i> San Fernando Valley spineflower	1B.1, FPT, SE	Coastal scrub (sandy), valley and foothill grassland. 150-1,220 m.	Apr-Jul	<b>Low</b> Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 6.1 miles to the northwest of the BSA; however, this observation is from well over 20 years ago.
<i>Chorizanthe parryi</i> <i>var. parryi</i> Parry's spineflower	2B.2	Sandy or rocky, openings. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 275-1,220 m.	Apr-Jun	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the north of the BSA; however, the date of this observation cannot be confirmed. The most recent occurrence for which the date is known is from 1919, approximately 3.8 miles to the northeast of the BSA.
<i>Cladium californicum</i> California saw-grass	2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater). 60-1,600 m.	Jun-Sep	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 9.9 miles to the east of the BSA; however, this record is from well over 20 years ago.



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Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
<i>Clinopodium mimuloides</i> monkey-flower savory	4.2	Streambanks, mesic. Chaparral, north coast coniferous forest. 305-1,800 m.	Jun-Oct	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Convolvulus simulans</i> small-flowered morning-glory	4.2	Clay, serpentinite seeps. Chaparral (openings), coastal scrub, valley and foothill grassland. 30-740 m.	Mar-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian dodder	1B.1	Marshes and swamps (freshwater). 15-280 m.	Jul-Oct	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 9.3 miles to the southeast of the BSA; however, the date of this observation cannot be confirmed.
<i>Diplacus johnstonii</i> Johnston's monkeyflower	4.3	Lower montane coniferous forest (scree, disturbed areas, rocky or gravelly, roadside). 975-2,920 m.	(Apr) May-Aug	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Dodecahema leptoceras</i> slender-horned spineflower	1B.2, FE, SE	Sandy. Chaparral, cismontane woodland, coastal scrub (alluvial fan). 200-760 m.	Apr-Jun	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.8 miles to the north of the BSA; however, this record is from well over 20 years ago. The most recent observation is from 2003, approximately 4.5 miles to the northwest of the BSA.
<i>Dudleya multicaulis</i> many-stemmed dudleya	1B.2	Often clay. Chaparral, coastal scrub, valley and foothill grassland. 15-790 m.	Apr-Jul	<b>Low</b> Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.3 miles to the southwest of the BSA; however, this record is from well over 20 years ago.
<i>Frasera neglecta</i> pine green-gentian	4.3	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. 1,400-2,500 m.	May-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Galium angustifolium</i> ssp. <i>gabrielense</i> San Antonio Canyon bedstraw	4.3	Granitic, sandy or rocky. Chaparral, lower montane coniferous forest. 1,200-2,650 m.	Apr-Aug	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Galium grande</i> San Gabriel bedstraw	1B.2	Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest. 425-1,500 m.	Jan-Jul	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 7.8 miles to the northeast of the BSA; however, this record is from well over 20 years ago. The most recent record is from 2003, approximately 9.8 miles to the northeast of the BSA.



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<i>Galium jepsonii</i> Jepson's bedstraw	4.3	Granitic, rocky or gravelly. Lower montane coniferous forest, upper montane coniferous forest. 1,540-2,500 m.	Jul-Aug	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Galium johnstonii</i> Johnston's bedstraw	4.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland. 1,220-2,300 m.	Jun-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	1A	Marshes and swamps (coastal salt and freshwater). 10-1,525 m.	Aug-Oct	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 3.6 miles to the southeast; however, this observation is from well over 20 years ago.
<i>Heuchera caespitosa</i> urn-flowered alumroot	4.3	Rocky. Cismontane woodland, lower montane coniferous forest, riparian forest (montane), upper montane coniferous forest. 1,155-2,650 m.	May-Aug	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Hordeum intercedens</i> vernal barley	3.2	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools. 5-1,000 m.	Mar-Jun	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	1B.1	Sandy or gravelly. Chaparral (maritime), cismontane woodland, coastal scrub. 70-810 m.	Feb-Jul (Sep)	<b>Low</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.5 miles to the west; however, this record is well over 20 years old. The most recent record is from 1967, approximately 4.7 miles to the northeast of the BSA.
<i>Hulsea vestita</i> ssp. <i>gabrielensis</i> San Gabriel Mountains sunflower	4.3	Rocky. Lower montane coniferous forest, upper montane coniferous forest. 1,500-2,500 m.	May-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Imperata brevifolia</i> California satintail	2B.1	Mesic. Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), riparian scrub. 0-1,215 m.	Sep-May	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Juglans californica</i> Southern California black walnut	4.2	Alluvial. Chaparral, cismontane woodland, coastal scrub, riparian woodland. 50-900 m.	Mar-Aug	<b>Low</b> Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.



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<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	1B.1	Marshes and swamps (coastal salt), playas, vernal pools. 1-1,220 m.	Feb-Jun	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.7 miles to the east; however, this observation is from well over 20 years ago.
<i>Lepechinia fragrans</i> fragrant pitcher sage	4.2	Chaparral. 20-1,310 m.	Mar-Oct	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's peppergrass	4.3	Chaparral, coastal scrub. 1-885 m.	Jan-Jul	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 4.8 miles to the northeast of the BSA; however, this record is from over 20 years ago.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated Humboldt lily	4.2	Openings. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. 30-1,800 m.	Mar-Jul (Aug)	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Linanthus concinnus</i> San Gabriel linanthus	1B.2	Rocky, openings. Chaparral, lower montane coniferous forest, upper montane coniferous forest. 1,520-2,800 m.	Apr-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range. The nearest and most recent recorded occurrence is approximately 7.4 miles to the northeast of the BSA from 2003.
<i>Linanthus orcuttii</i> Orcutt's linanthus	1B.3	Openings. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. 915-2,145 m.	May-Jun	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Lupinus peirsonii</i> Peirson's lupine	1B.3	Gravelly or rocky. Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. 1,000-2,500 m.	Apr-Jun	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	1B.2	Chaparral. Cismontane woodland, coastal scrub, riparian woodland. 185-1,140 m.	Jun-Jan	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 6.9 miles to the northwest of the BSA; however, this record is from well over 20 years ago. The most recent record is from 2018, approximately 8.4 miles to the northeast of the BSA.
<i>Monardella australis</i> ssp. <i>cinereal</i> gray monardella	4.3	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. 1,800-3,050 m.	Jul-Aug	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.



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<i>Muhlenbergia californica</i> California muhly	4.3	Mesic, seeps and streambanks. Chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps. 100-2,000 m.	Jun-Sep	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.3 miles to the northeast; however, this record is from well over 20 years ago.
<i>Nasturtium gambelii</i> Gambel's water cress	1B.1, FE, ST	Marshes and swamps (freshwater or brackish). 5-330 m.	Apr-Oct	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	1B.1	Mesic. Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. 3-1,210 m.	Apr-Jul	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.6 miles to the southwest; however, this record is from well over 20 years ago.
<i>Opuntia basilaris</i> var. <i>brachyclada</i> short-joint beavertail	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. 425-1,800 m.	Apr-Jun (Aug)	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Orobanche valida</i> ssp. <i>valida</i> Rock Creek broomrape	1B.2	Granitic. Chaparral, pinyon and juniper woodland. 1,250-2,000 m.	May-Sep	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Phacelia hubbyi</i> Hubby's phacelia	4.2	Gravelly, rocky, talus. Chaparral, coastal scrub, valley and foothill grassland. 0-1,000 m.	Apr-Jul	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Phacelia mohavensis</i> Mojave phacelia	4.3	Sandy or gravelly. Cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. 1,400-2,500 m.	Apr-Aug	<b>Low</b> Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
<i>Phacelia stellaris</i> Brand's star phacelia	1B.1	Coastal dunes. Coastal scrub. 1-400 m.	Mar-Jun	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Pickeringia montana</i> var. <i>tomentosa</i> woolly chaparral-pea	4.3	Gabbroic, granitic, clay. Chaparral. 0-1,700 m.	May-Aug	<b>Low</b> Marginal habitat occurs within the BSA, though suitable substrates are not present.
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	2B.2	Sandy, gravelly. Chaparral, cismontane woodland, coastal scrub, riparian woodland. 0-2,100 m.	(Jul) Aug-Nov (Dec)	<b>Low</b> Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this record is well over 20 years old. The most recent record is from 1932, approximately 6.9 miles to the northeast of the BSA.



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<i>Quercus dumosa</i> Nuttall's scrub oak	1B.1	Sandy, clay loam, closed-cone coniferous forest, chaparral, coastal scrub. 15-400 m.	Feb-Apr (May-Aug)	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 6.0 miles to the southwest of the BSA; however, this record is well over 20 years old.
<i>Quercus durata</i> var. <i>gabrielensis</i> San Gabriel oak	4.2	Chaparral, cismontane woodland. 450-1,000 m.	Apr-May	<b>Low</b> Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.
<i>Quercus engelmannii</i> Engelmann oak	4.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 50-1,300 m.	Mar-Jun	<b>Low</b> Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.
<i>Ribes divaricatum</i> var. <i>parishii</i> Parish's gooseberry	1A	Riparian woodland. 65-300 m.	Feb-Apr	<b>Low</b> Limited marginal habitat occurs within the BSA. The nearest recorded occurrence is from within the BSA; however, this observation is from well over 20 years ago. The most recent record is from 1951, approximately 9.9 miles to the southeast of the BSA.
<i>Romneya coulteri</i> Coulter's matilija poppy	4.2	Often in burns. Chaparral, coastal scrub. 20-1,200 m.	Mar-Jul (Aug)	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Rupertia rigida</i> Parish's rupertia	4.3	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foothill grassland. 700-2,500 m.	Jun-Aug	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern mountains skullcap	1B.2	Mesic. Chaparral, cismontane woodland, lower montane coniferous forest. 425-2,000 m.	Jun-Aug	<b>Moderate</b> Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 9.3 miles to the southeast of the BSA, though the date of this record cannot be confirmed.
<i>Senecio astephanus</i> San Gabriel ragwort	4.3	Rocky slopes. Coastal bluff scrub, chaparral. 400-1,500 m.	May-Jul	<b>Moderate</b> Marginal habitat occurs within the BSA.
<i>Sidalcea neomexicana</i> salt spring checkerbloom	2B.2	Alkaline, mesic. Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas. 15-1,530 m.	Mar-Jun	<b>Not Likely to Occur</b> No suitable mesic habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the north of the BSA; however, this record is from well over 20 years ago. The most recent record is from 1920, approximately 6.6 miles to the southwest of the BSA.



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Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
<i>Sidotheca caryophylloides</i> chickweed oxytheca	4.3	Lower montane coniferous forest (sandy). 1,114-2,600 m.	Jul-Sep (Oct)	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA and the BSA is well below this species' known elevation range.
<i>Spermolepis lateriflora</i> western bristly scaleseed	2A	Rocky or sandy. Sonoran Desert scrub. 365-670 m.	Mar-Apr	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA.
<i>Symphotrichum defoliatum</i> San Bernardino aster	1B.2	Near ditches, streams, springs. Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). 2-2,040 m.	Jul-Nov (Dec)	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 7.6 miles to the southwest of the BSA; however, this record is from well over 20 years ago.
<i>Symphotrichum greatae</i> Greata's aster	1B.3	Mesic. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. 300-2,010 m.	Jun-Oct	<b>Not Likely to Occur</b> No suitable mesic habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.6 miles to the south of the BSA; however, this record is from well over 20 years ago. The most recent record is from 2014, approximately 7.7 miles to the northeast of the BSA.
<i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	2B.2	Meadows and seeps (seeps and streams). 50-610 m.	Jan-Sep	<b>Not Likely to Occur</b> No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 4.3 miles to the northeast of the BSA; however, this record is from well over 20 years ago.



Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Source: Baldwin et al. 2012; CDFW, 2019a; CNPS, 2019.				
* Species listings for which nearest/most recent data are not provided originated from the CNPS database. Metadata is not available for these records.				
<b>Status Codes</b>				
<i>US Fish and Wildlife Service (Fed.) Designations:</i>				
FE: Federally listed, endangered.				
FT: Federally listed, threatened.				
FPT: Federally proposed, threatened				
<i>California Department of Fish and Wildlife (State) Designations:</i>				
SE: State listed, endangered.				
ST: State listed, threatened.				
SR: State listed, rare				
<i>California Rare Plant Rank (CRPR) designation</i>				
1A Plants presumed extinct in California.				
1B Plants rare, threatened, or endangered in California and elsewhere.				
2B Plants presumed extinct in California but more common elsewhere.				
3 Plants about which we need more information – a review list.				
4 Plants of limited distribution – a watch list.				
.1 Seriously threatened in California (high degree/immediacy of threat).				
.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).				

## 5.4 SPECIAL-STATUS WILDLIFE

Special-status taxa include those listed as threatened or endangered under the federal or California Endangered Species Acts, taxa proposed for such listing, Species of Special Concern, and other taxa that have been identified by the USFWS, CDFW, or local jurisdictions as unique or rare and which have the potential to occur within the BSA. No special-status wildlife species were observed in the BSA during the survey.

The CNDDDB was queried for occurrences of special-status wildlife taxa within the USGS topographical quadrangles in which the BSA occurs and the eight surrounding quadrangles, as discussed above in Section 2.0. **Table 6** summarizes the special-status wildlife taxa known to regionally occur and presents an evaluation of their potential to occur in the BSA; refer to **Appendix A, Figures 4a and b** for a graphical depiction of previously reported species locations. Each of the taxa identified in the database reviews/searches were assessed for its potential to occur within the BSA based on the following criteria:

- **Present:** Taxa (or sign) were observed in the BSA or in the same watershed (aquatic taxa only) during the most recent surveys, or a population has been acknowledged by CDFW, USFWS, or local experts.
- **High:** Habitat (including soils) for the taxa occurs onsite and a known occurrence occurs within the BSA or adjacent areas (within 5 miles of the BSA) within the past 20 years; however, these taxa were not detected during the most recent surveys.
- **Moderate:** Habitat (including soils) for the taxa occurs onsite and a known regional record occurs within the database search, but not within 5 miles of the BSA or within the past 20 years; or a known occurrence occurs within 5 miles of the BSA and within the past 20 years and marginal or limited amounts of habitat occurs onsite; or the taxa’s range includes the geographic area and suitable habitat exists.



- **Low:** Limited habitat for the taxa occurs within the BSA and no known occurrences were found within the database search and the taxa's range includes the geographic area.
- **Not Likely to Occur:** The environmental conditions associated with taxa presence do not occur within the BSA.

It should be noted that the analysis of whether these species may occur within the BSA does not specify where within the BSA they may occur, but because of the development and ongoing disturbance throughout many parts of the BSA, special-status species would generally not be expected to permanently inhabit those areas. The determinations presented below are therefore more appropriate for sections of the BSA in which native or less-disturbed habitat occurs, particularly along its northern and southern edges.



**Table 6 Known and Potential Occurrence of Special-Status Wildlife within the BSA**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	Common Name				
<b>INSECTS</b>					
<i>Bombus crotchii</i>	Crotch bumble bee	SA	Coastal California east to the Sierra-Cascade Crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Suitable food plants occur in the BSA. The nearest and most recent recorded occurrence is approximately 4.2 miles to the northeast of the BSA; however, this observation is from well over 20 years ago.	Low
<b>Amphibians</b>					
<i>Rana muscosa</i>	southern mountain yellow-legged frog	WL, FE, SE	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino Mountains (Southern DPS). The Northern DPS was determined to warrant listing as endangered in 2014. Always encountered within a few feet of water. Tadpoles may require 2-4 yrs. to complete their aquatic development.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2009, approximately 3.9 miles to the northeast of the BSA.	Not Likely to Occur
<i>Taricha torosa</i>	Coast Range newt	SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs & slow-moving streams.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2003, approximately 3.9 miles to the northeast of the BSA.	Not Likely to Occur
<b>Fish</b>					
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2002, approximately 8.4 miles to the north of the BSA.	Not Likely to Occur
<i>Gila orcuttii</i>	arroyo chub	SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave, and San Diego River basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2015, approximately 8.4 miles to the north of the BSA.	Not Likely to Occur
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	SSC, FT	Headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20° C. Usually inhabits shallow cobble and gravel riffles.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2015, approximately 8.4 miles to the north of the BSA.	Not Likely to Occur



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Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	Common Name				
<b>Reptiles</b>					
<i>Anniella stebbinsi</i>	southern California legless lizard	SSC	Generally south of the transverse range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.4 mile to the north of the BSA; however, this observation is over 20 years ago. The most recent record is from 2018, approximately 6.0 miles to the northwest.	High
<i>Arizona elegans occidentalis</i>	California glossy snake	SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 4.5 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Low
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 8.7 miles to the northeast of the BSA; however, this observation is over 20 years ago. The most recent record is from 2015, approximately 9.9 miles to the northwest of the BSA.	Moderate
<i>Emys marmorata</i>	western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1987, approximately 5.0 miles to the northeast of the BSA.	Not Likely to Occur
<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.4 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Moderate
<b>Birds</b>					
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	WL	Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2014, approximately 8.5 miles to the southwest of the BSA.	Moderate



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Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	Common Name				
<i>Athene cunicularia</i>	burrowing owl	<b>SSC</b>	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Low</b>
<i>Buteo swainsoni</i>	Swainson's hawk	<b>ST</b>	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1880, approximately 5.5 miles to the southeast of the BSA.	<b>Low (as a transient)</b>
<i>Coturnicops noveboracensis</i>	yellow rail	<b>SSC</b>	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1952, approximately 7.0 miles to the southwest of the BSA.	<b>Not Likely to Occur</b>
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	<b>FE, SE</b>	Riparian woodlands in southern California.	A small area of marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is from within the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Low</b>
<i>Falco peregrinus anatum</i>	American peregrine falcon	<b>SFP</b>	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is from within the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Low</b>
<i>Polioptila californica californica</i>	coastal California gnatcatcher	<b>SSC, FT</b>	Obligate, permanent resident of coastal sage scrub below 2,500 ft in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Limited marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 8.0 miles to the east of the BSA; however, this observation is was over 20 years ago. The most recent record is from 2005, approximately 10.0 miles to the southeast.	<b>Low</b>
<i>Riparia riparia</i>	bank swallow	<b>ST</b>	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1894, approximately 0.8 mile to the south of the BSA.	<b>Not Likely to Occur</b>



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Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	Common Name				
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, <i>Baccharis</i> , mesquite.	No suitable habitat occurs within the BSA. The nearest recorded occurrence is from within the BSA; however, this observation was over 20 years ago. The most recent record is from 2015, approximately 5.7 miles to the northeast of the BSA.	Low (as a transient)
<b>Mammals</b>					
<i>Antrozous pallidus</i>	pallid bat	SSC	Desert, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Low
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Marginal habitat occurs within the BSA, though ongoing human activities in the area reduce the potential for this species to use the site. The nearest and most recent recorded occurrence is approximately 10.0 miles to the east of the BSA.	Low
<i>Eumops perotis californicus</i>	western mastiff bat	SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.70 mile to the southeast of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Moderate
<i>Lasionycteris noctivagans</i>	silver-haired bat	SA	Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 3.2 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Low
<i>Lasiurus blossevillii</i>	western red bat	SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 10 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Low
<i>Lasiurus cinereus</i>	hoary bat	SA	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	Low



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Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	Common Name				
<i>Lasiurus xanthinus</i>	western yellow bat	<b>SSC</b>	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 2.6 miles to the west of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Not Likely to Occur</b>
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	<b>SSC</b>	Coastal scrub of southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2006, approximately 7.3 miles to the west of the BSA.	<b>Moderate</b>
<i>Nyctinomops macrotis</i>	big free-tailed bat	<b>SSC</b>	Low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	No suitable roosting habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.1 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Low</b>
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	<b>SSC</b>	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.8 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Low</b>
<i>Taxidea taxus</i>	American badger	<b>SSC</b>	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.	Suitable habitat occurs within the BSA. The nearest and most recent occurrence is approximately 2.6 miles to the southwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	<b>Moderate</b>

**Federal Rankings:**

FE = Federally Endangered  
 FT = Federally Threatened

**State Rankings:**

SE= State Endangered  
 ST = State Threatened  
 SFP = State Fully Protected  
 SA = CDFW Special Animal  
 WL = CDFW Watch List  
 SSC = Species of Special Concern





## 5.5 WILDLIFE CORRIDORS AND SPECIAL LINKAGES

Linkages and corridors facilitate regional animal movement and are generally centered in or around waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Drainages generally serve as movement corridors because wildlife can move easily through these areas, and fresh water is available. Corridors also offer wildlife unobstructed terrain for foraging and for dispersal of young individuals.

As the movements of wildlife species are more intensively studied using radio-tracking devices, there is mounting evidence that some wildlife species do not necessarily restrict their movements to some obvious landscape element, such as a riparian corridor. For example, recent radio-tracking and tagging studies of Coast Range newts, California red-legged frogs, southwestern pond turtles, and two-striped garter snakes found that long-distance dispersal involved radial or perpendicular movements away from a water source with little regard to the orientation of the assumed riparian "movement corridor" (Hunt, 1993; Rathbun et al., 1992; Bulger et al., 2002; Trenham, 2002; Ramirez, 2002, 2003a, 2003b). Likewise, carnivores do not necessarily use riparian corridors as movement corridors, frequently moving overland in a straight line between two points when traversing large distances (Newmark, 1995; Beier, 1993, 1995; Noss, et al., 1996; Noss et al., no date). In general, the following corridor functions can be utilized when evaluating impacts to wildlife movement corridors:

- Movement corridors are physical connections that allow wildlife to move between patches of suitable habitat. Simberloff et al. (1992) and Beier and Loe (1992) correctly state that, for most species, we do not know what corridor traits (length, width, adjacent land use, etc.) are required for a corridor to be useful. But, as Beier and Loe (1992) also note, the critical features of a movement corridor may not be its physical traits but rather how well a particular piece of land fulfills several functions, including allowing dispersal, plant propagation, genetic interchange, and recolonization following local extirpation.
- Dispersal corridors are relatively narrow, linear landscape features embedded in a dissimilar matrix that links two or more areas of suitable habitat that would otherwise be fragmented and isolated from one another by rugged terrain, changes in vegetation, or human-altered environments. Corridors of habitat are essential to the local and regional population dynamics of a species because they provide physical links for genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities.
- Habitat linkages are broader connections between two or more habitat areas. This term is commonly used as a synonym for a wildlife corridor (Meffe and Carroll, 1997). Habitat linkages may themselves serve as source areas for food, water, and cover, particularly for small- and medium-size animals.
- Travel routes are usually landscape features, such as ridgelines, drainages, canyons, or riparian corridors within larger natural habitat areas that are used frequently by animals to facilitate movement and provide access to water, food, cover, den sites, or other necessary resources. A travel route is generally preferred by a species because it provides the least amount of topographic resistance in moving from one area to another yet still provides adequate food, water, or cover (Meffe and Carroll, 1997).
- Wildlife crossings are small, narrow areas of limited extent that allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways, pipelines, or other physical obstacles. Wildlife crossings



often represent “choke points” along a movement corridor because useable habitat is physically constricted at the crossing by human-induced changes to the surrounding areas (Meffe and Carroll, 1997).

### **5.5.1 Wildlife Movement within the BSA**

The BSA is situated in the San Rafael Hills, which functions as an “island” in which patches of native habitat occur surrounded by the heavily developed City of Glendale and the greater Los Angeles area. This relatively small expanse of native habitat and isolation from wider areas of open space would significantly constrain the movement of certain types of wildlife, particularly megafauna, within the San Rafael Hills and by extension, within the BSA. The BSA is characterized primarily by open space; however much of that land is occupied by the SCLF and recreational facilities (baseball field and golf course) that generally lack the cover, presence of refugia, or other characteristics conducive the permanent use of and/or movement through a habitat by many native wildlife species. Other barriers to terrestrial wildlife movement within the BSA include residential development, fencing, and roadways. There are localized portions of open space occupied by native habitat within the BSA such as the slopes to the north and south of the SCLF. These more open areas likely provide “live-in habitat” for a variety of common species habituated to life in urban environments such as Virginia opossum, raccoon, Audubon’s cottontail, California ground squirrel, and other small rodents.

The significant and ongoing landfill disturbance within the BSA, level of development, and general lack of native habitat, distributed only along the northern and southern edges of the BSA, would significantly constrain the passage of most large terrestrial wildlife known to occur in the San Gabriel Mountains, to the north of the San Rafael Hills and separated from the BSA by the 210 freeway. In addition, the BSA does not occur within any known wildlife movement corridor or habitat linkage (Penrod et al, 2001).



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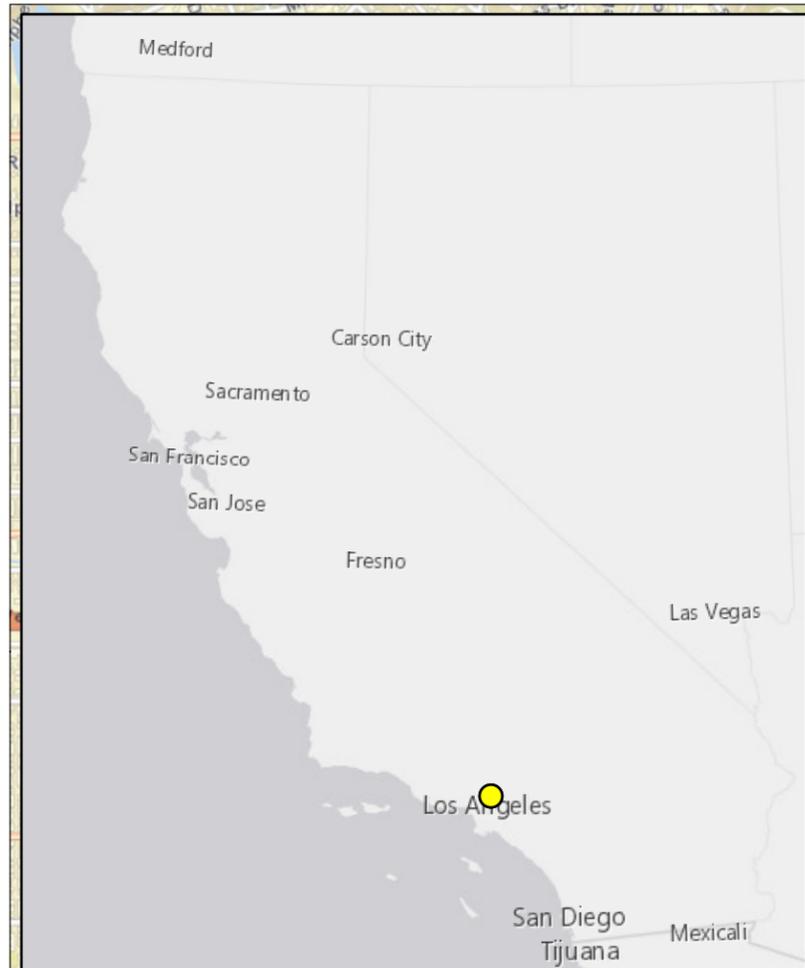
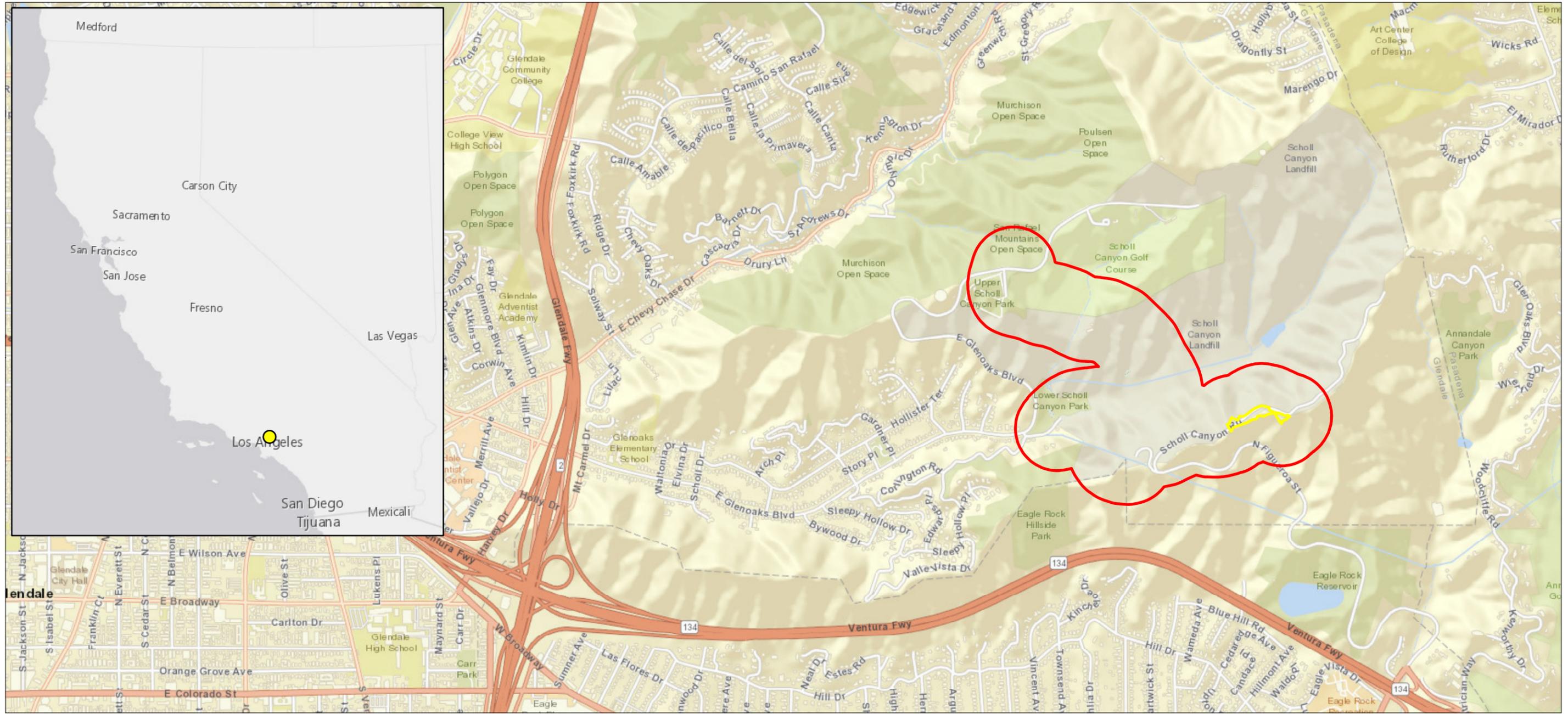


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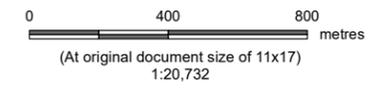


## Appendix A FIGURES





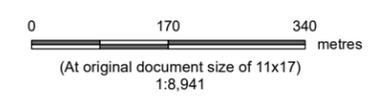
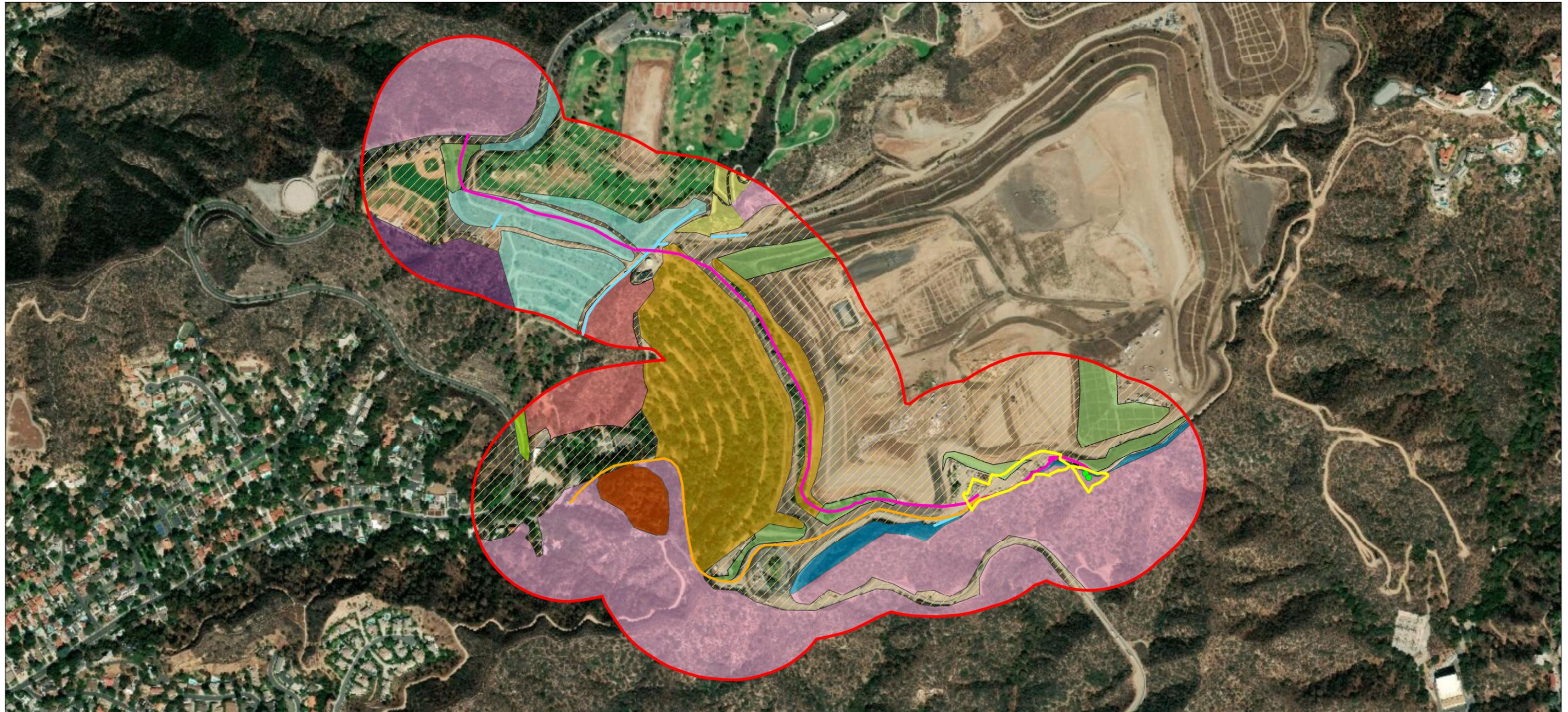
- Biological Study Area
- Proposed Power Plant Facility Boundary



Project Location: Glendale, CA  
 Client/Project: 185804356  
 Prepared by DL on 2019-05-2  
 TR by RB on 2019-05-17  
 IR Review by SR on 2019-05-23

Biogas Renewable Generation Project  
 Figure No. **1**  
 Title **Project Location**

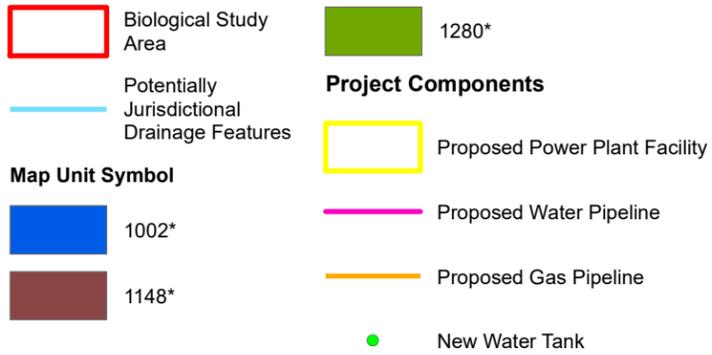
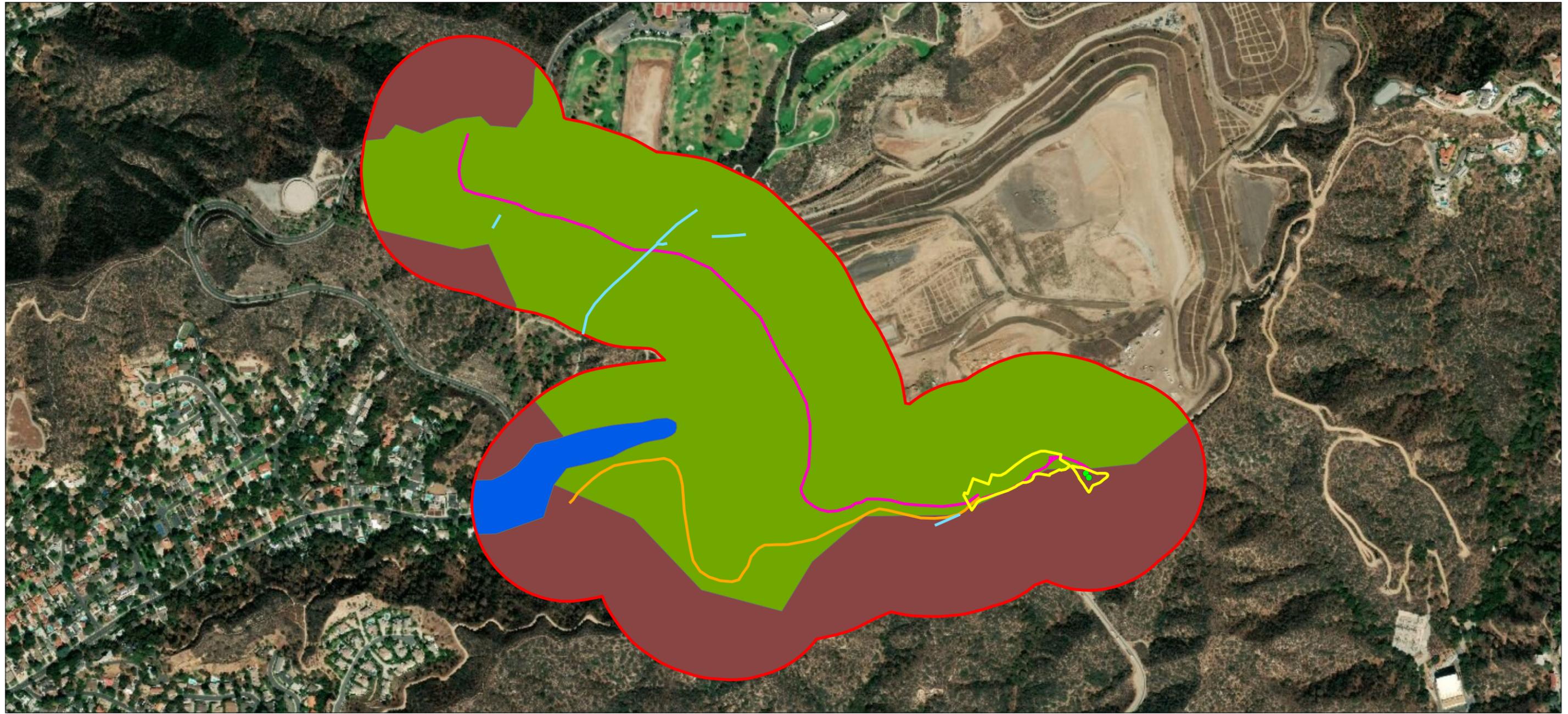
**Notes**  
 1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet  
 2. Background: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community  
 Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



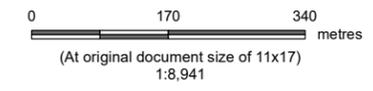
Project Location: Glendale, Ca  
 Client/Project: 185804356  
 Prepared by DL on 2019-05-2  
 TR by RB on 2019-05-17  
 IR Review by SR on 2019-05-22

Biogas Renewable Generation Project  
 Figure No. **2**  
 Title **Vegetation Communities & Land Cover Types**

**Notes**  
 1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
 2. Background: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

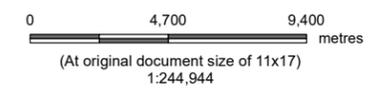
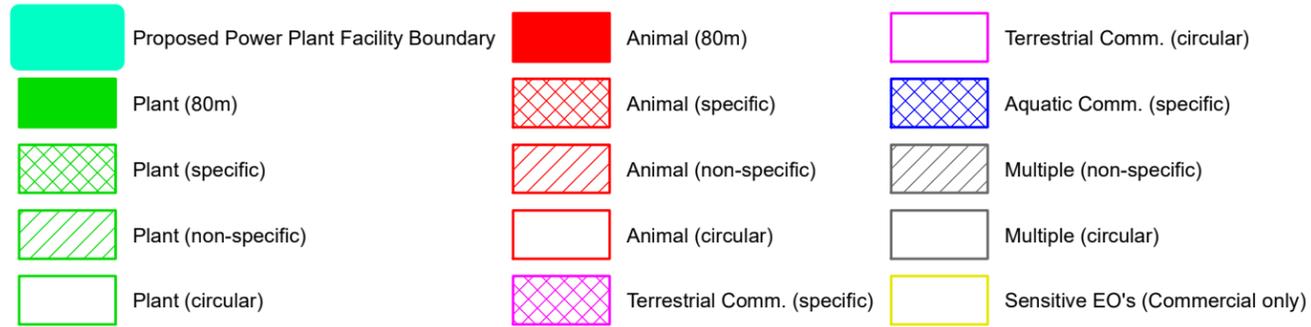
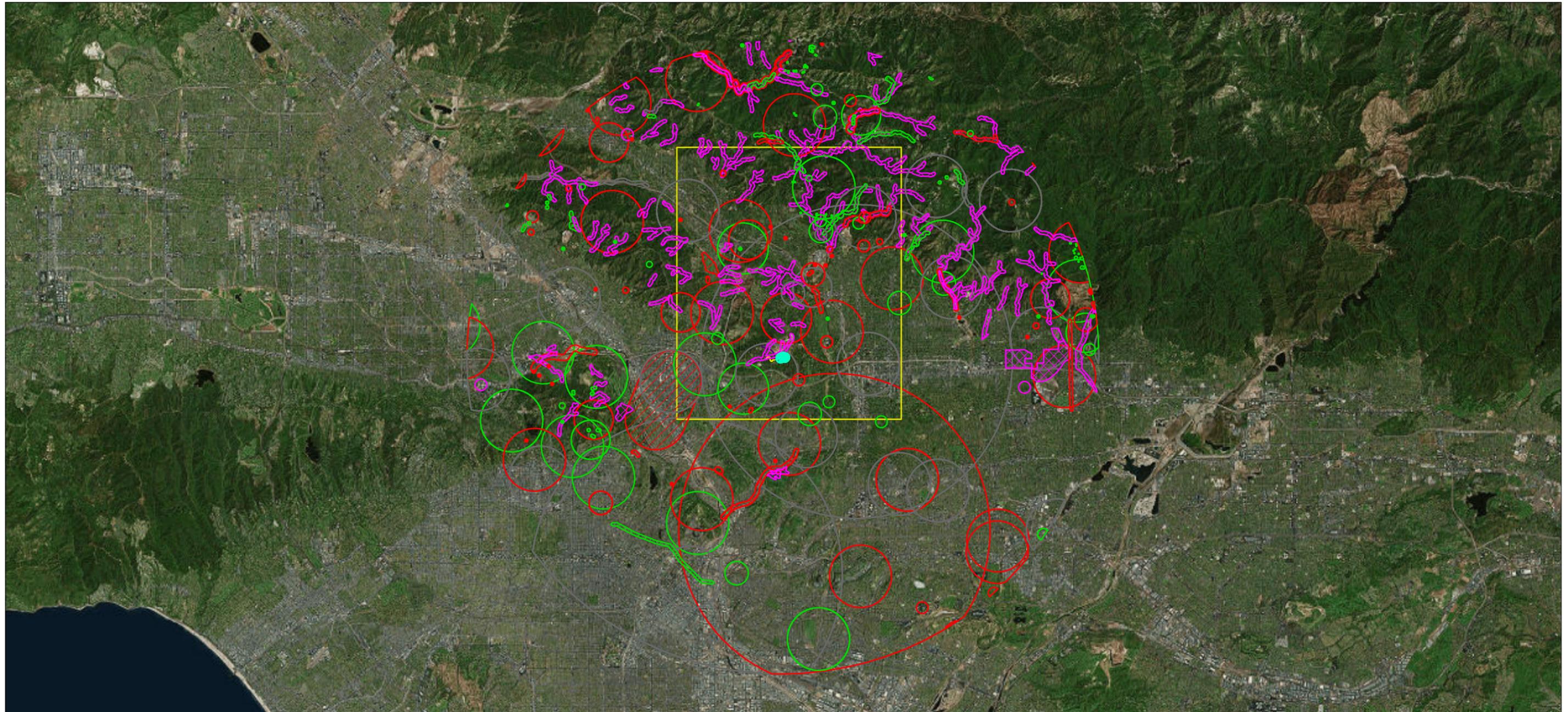


**Notes**  
 1. Refer to section 4.3 Table 2 for Soil Descriptions \*  
 2. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
 3. Background: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



<i>Project Location</i>	Prepared by DL on 2019-05-2
Glendale, CA	TR by RB on 2019-05-17
<i>Client/Project</i>	IR Review by SR on 2019-05-22
	185804356

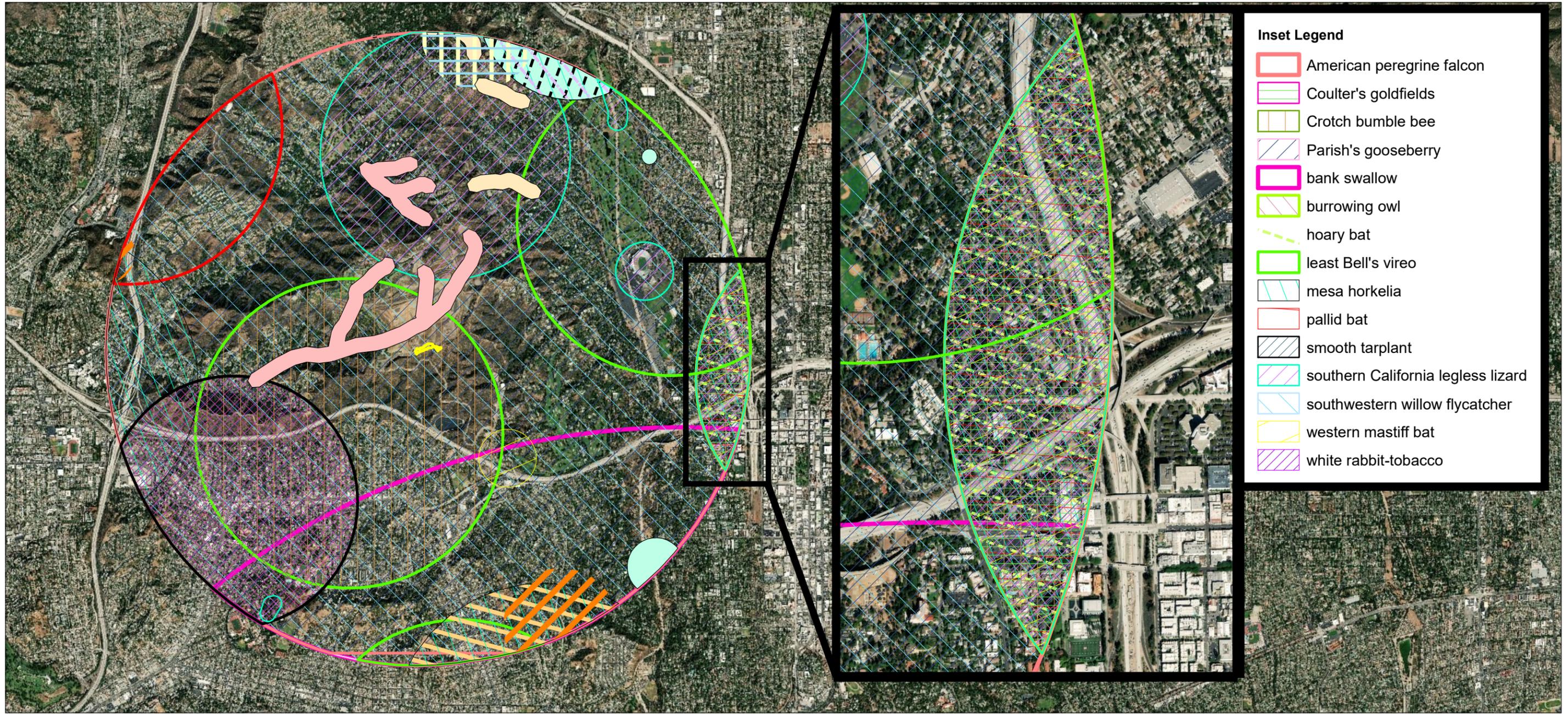
Biogas Renewable Generation Project  
 Figure No.  
**3**  
 Title  
**Historic Soils Types**



Project Location: Glendale, CA  
 Client/Project: 185804356  
 Prepared by DL on 2019-05-2  
 TR by RB on 2019-05-17  
 IR Review by SR on 2019-05-22

Biogas Renewable Generation Project  
 Figure No. **4a**  
 Title **CNDDB - 10 Mile Search Radius**

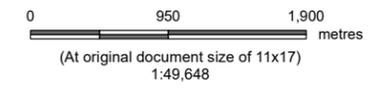
**Notes**  
 1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
 2. Background: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Inset Legend**
- American peregrine falcon
  - Coulter's goldfields
  - Crotch bumble bee
  - Parish's gooseberry
  - bank swallow
  - burrowing owl
  - hoary bat
  - least Bell's vireo
  - mesa horkelia
  - pallid bat
  - smooth tarplant
  - southern California legless lizard
  - southwestern willow flycatcher
  - western mastiff bat
  - white rabbit-tobacco

**2 Mile Radius Legend**

- |   |  |  |  |
|---|--|--|--|
| <span style="border: 2px solid yellow; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Proposed Power Plant Facility Boundary | <span style="border: 1px solid blue; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Parry's spineflower                       | <span style="border: 1px dashed green; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> hoary bat                   | <span style="border: 1px solid cyan; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> southern California legless lizard  |
| <span style="border: 1px solid red; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> American peregrine falcon                 | <span style="border: 1px solid orange; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Plummer's mariposa-lily                 | <span style="border: 1px solid green; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> least Bell's vireo           | <span style="border: 1px dashed black; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> southern grasshopper mouse        |
| <span style="border: 1px solid magenta; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Coulter's goldfields                  | <span style="border: 1px solid orange; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Southern Coast Live Oak Riparian Forest | <span style="border: 1px solid cyan; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> mesa horkelia                 | <span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> southern tarplant                  |
| <span style="border: 1px solid green; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Crotch bumble bee                       | <span style="border: 1px solid pink; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Southern Sycamore Alder Riparian Woodland | <span style="border: 1px solid orange; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> pallid bat                  | <span style="border: 1px solid lightblue; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> southwestern willow flycatcher |
| <span style="border: 1px solid yellow; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Greata's aster                         | <span style="border: 1px solid pink; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> bank swallow                              | <span style="border: 1px solid yellow; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> salt spring checkerbloom    | <span style="border: 1px solid yellow; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> western mastiff bat               |
| <span style="border: 1px solid cyan; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Nevin's barberry                         | <span style="border: 1px solid green; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> burrowing owl                            | <span style="border: 1px dashed purple; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> slender-horned spineflower | <span style="border: 1px solid purple; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> white rabbit-tobacco              |
| <span style="border: 1px solid blue; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Parish's gooseberry                      | <span style="border: 1px solid red; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> coast horned lizard                        | <span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> smooth tarplant              | <span style="border: 1px solid orange; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> 2Mile_CNDDB_Buffer                |



Project Location: Glendale, CA  
 Client/Project: 185804356  
 Prepared by DL on 2019-05-2  
 TR by RB on 2019-05-17  
 IR Review by SR on 2019-05-22

Biogas Renewable Generation Project  
 Figure No. **4b**  
 Title **CNDDB - 2 Mile Search Radius**

**Notes**  
 1. Coordinate System: Custom  
 2. Background: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## Appendix B PHOTOGRAPHIC LOG



**STANTEC CONSULTING SERVICES INC.  
PHOTOGRAPHIC RECORD**

**Client:** City of Glendale

**Project Number:** 185804356

**Project Name:** Biogas Renewable Generation Project

**Photographer:** M. Martinez

**Photo 1: April 29, 2019**



Main entrance to the SCLF in the southwestern portion of the BSA, looking southeast. Note steep outcrop in the background with native scrub habitat.

**Photo 2: April 29, 2019**



View of the SCLF from the south-central portion of the BSA, looking northeast, with native scrub habitat in the foreground and active landfill in the background.

**STANTEC CONSULTING SERVICES INC.  
PHOTOGRAPHIC RECORD**

**Client:** City of Glendale

**Project Number:** 185804356

**Project Name:** Biogas Renewable Generation Project

**Photographer:** M. Martinez

**Photo 3: April 29, 2019**



View of the SCLF from the south-central portion of the BSA, looking northwest, with reclaimed portions of the landfill prominently depicted in the foreground and to the right side of the photo and slopes occupied by native scrub vegetation on the opposite side of the canyon in the background.

**Photo 4: April 29, 2019**



Representative view of the slopes along the southern boundary of the BSA, looking south from the southwestern portion of the BSA. Note native chamise chaparral habitat.

**STANTEC CONSULTING SERVICES INC.  
PHOTOGRAPHIC RECORD**

**Client:** City of Glendale

**Project Number:** 185804356

**Project Name:** Biogas Renewable Generation Project

**Photographer:** M. Martinez

**Photo 5: April 29, 2019**



View of the ornamental woodland prominent in the western portion of the BSA with herbaceous understory in the foreground, looking west.

**Photo 6: April 29, 2019**



Representative concrete-lined drainage channel within the BSA.