

Young Nak Retreat Center Biota Report

Los Angeles County, California

County Project Number 03-221

Prepared by:

Impact Sciences, Inc.

Supplemental Information Submitted to SEATAC at their Request

January 2005
Revised December 2007

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Prepared for:

Los Angeles County
Department of Regional Planning
Significant Ecological Area Technical Advisory Committee
320 West Temple Street
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1.0 INTRODUCTION

This document identifies and analyzes potential impacts to the biological resources of the approximately 30.5-acre Young Nak Retreat Center project site. Because the site is within Significant Ecological Area (SEA) No. 58, the County of Los Angeles Department of Regional Planning requires that two biological documents, a Biological Constraints Analysis and a Biota Report, be prepared for and reviewed by the Significant Ecological Area Technical Advisory Committee (SEATAC). The Biological Constraints Analysis, prepared by Environmental Sciences Associates (ESA), was submitted on April 29, 1999, and a Biota Report was submitted in January 2005. This is the revised Biota Report including changes recommended by SEATAC in March 2005.

2.0 PROJECT DESCRIPTION

2.1 LOCATION AND SIZE

The 30.5-acre Young Nak Retreat Center project site is located at 24100 Pine Canyon Road, in the northwestern portion of Los Angeles County. The project site is currently used as a church retreat and contains 20 mobile home units, one permanent single-family dwelling, a detached laundry/restroom, a network of unpaved footpaths, and several paved and unpaved access roads. As shown in **Figure 1**, the project site is approximately 15 miles southeast of the State Route 138 (SR-138) and Interstate 5 interchange. The project site is bordered to the north by Pine Canyon Road, to the south by the Angeles National Forest, and to the east and west by private property.

2.2 PROJECT FEATURES

The applicant proposes to construct a parking area, an office building, a dormitory, a cafeteria, a swimming pool, an outdoor amphitheater, a chapel retreat center, and two meeting rooms. The applicant also proposes to pave several existing dirt roads and upgrade the current water supply and septic systems. The location of the proposed structures is shown in **Figure 2** and a description is provided below.

2.2.1 Parking Area and Office Building

The proposed paved parking lot would be constructed in the northwest portion of the project site and would cover approximately 0.70 acre of the site with pavement. This parking lot would be used for both automobiles and church buses and could support up to 24 automobiles and five buses.

A 550-square-foot office building would be constructed immediately south of the parking lot. This office building would act as a receiving facility for visitors and would provide space for retreat offices and church personnel. The total grading footprint for the office building would be approximately 0.60 acre.

2.2.2 Chapel/Retreat Center

The proposed chapel/retreat center building would be constructed in the southeastern portion of the project site and would be used for large group gatherings. The single-story building would total approximately 3,000 square feet and would have a maximum seating of 250 people. Total grading footprint for the chapel/retreat center would be approximately 0.25 acre.

2.2.3 Cafeteria and Swimming Pool

The proposed cafeteria would be constructed in the central portion of the project site and would be located to the south of the proposed dormitory. The one-story building would be approximately 6,200 square feet and could accommodate up to 250 people. The facility would feature a full kitchen (600 square feet), a dining area (5,100 square feet) and restrooms (500 square feet). Total grading footprint for the cafeteria and swimming pool would be approximately 0.46 acre.

A swimming pool is proposed to be constructed immediately adjacent to the cafeteria and would include restrooms and showers. The pool and its facilities would total 600 square feet.

2.2.4 Dormitory

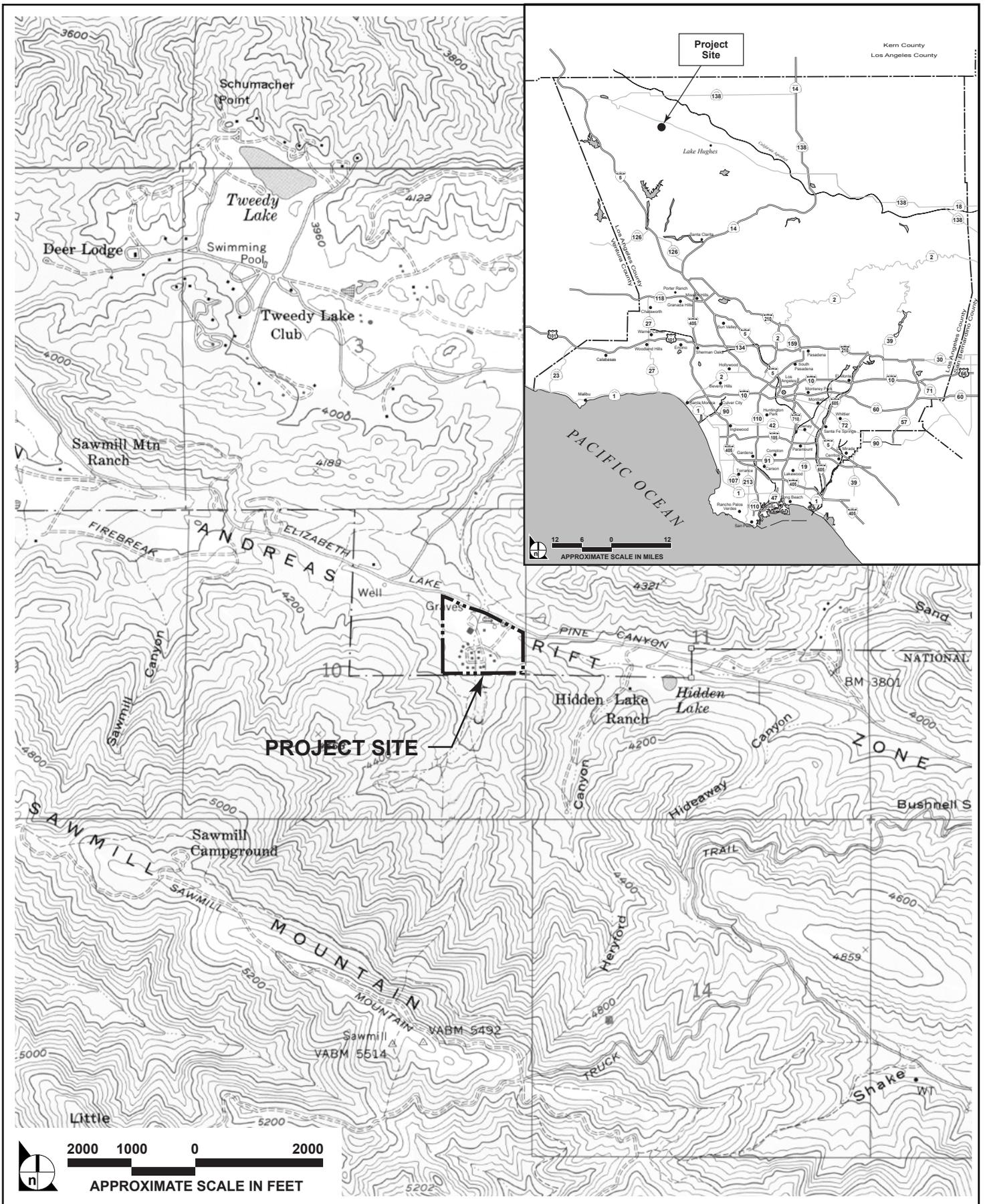
A dormitory building is proposed to be constructed in the central portion of the project site. The two-story building would total 13,000 square feet in size, with the first floor consisting of 7,500 square feet and the second floor consisting of 5,500 square feet. The facility would consist of 24 four-person dorm rooms, a single common kitchen, two meeting rooms, and a laundry/janitor area. The total grading footprint for this facility would be approximately 0.60 acre.

2.2.5 Outdoor Amphitheater

The proposed outdoor amphitheater would be constructed in the southeastern portion of the project site. The amphitheater would include an open stage and seating area and would be used for outdoor concerts and meetings. The amphitheater would accommodate up to 250 people and would be constructed on grade-level concrete and would measure approximately 4,800 square feet. While the amphitheater site is fairly secluded, music concerts would be limited to the hours between 8:00 AM and 10:00 PM to preserve the quiet, rural surroundings. The total grading footprint for this facility would be approximately 0.20 acre.

2.2.6 Meeting Room Building

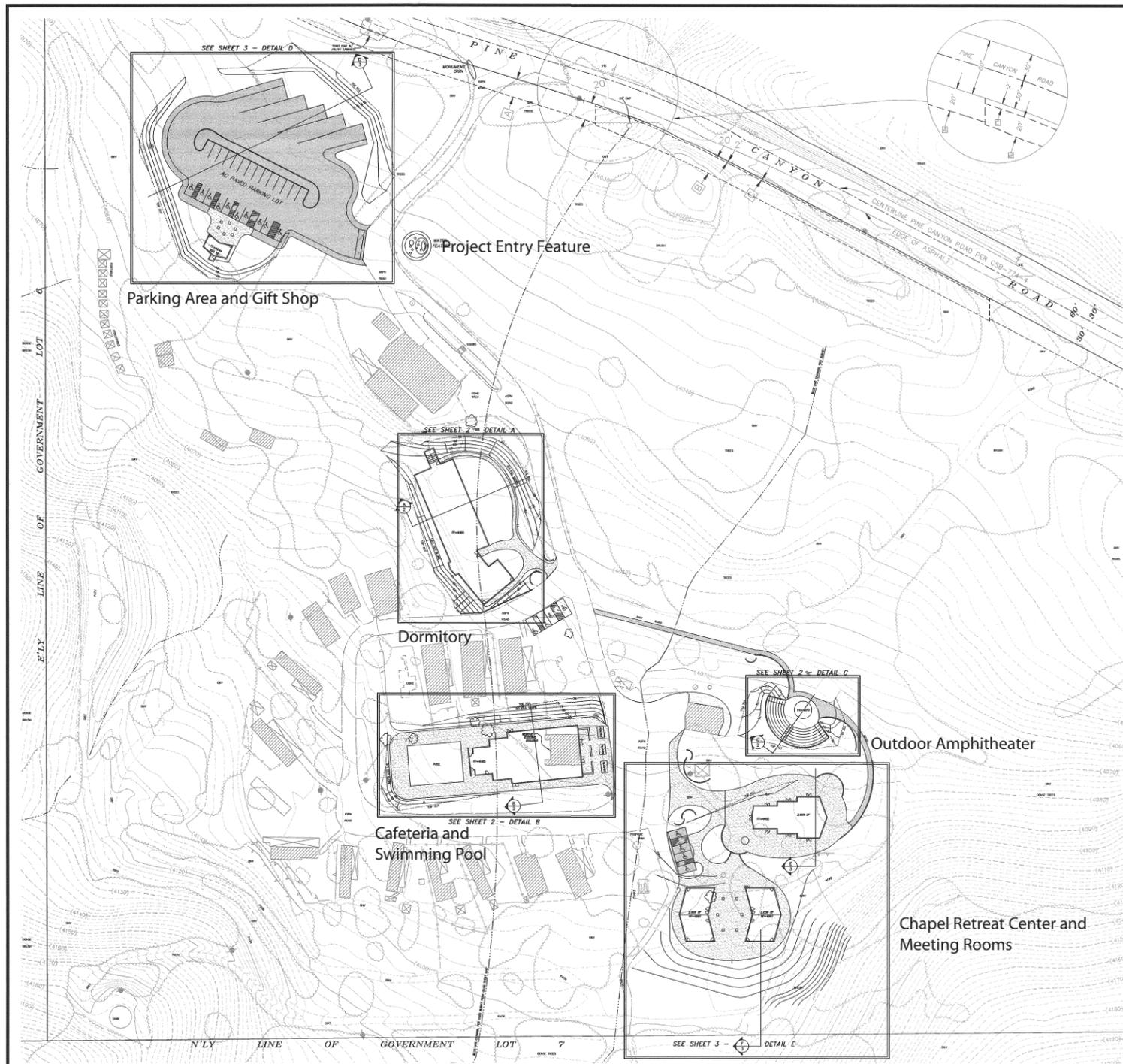
The proposed meeting room building would be constructed in the southeastern portion of the project site, south of the proposed chapel retreat center. This facility would total 4,000 square feet and would consist of four individual meeting rooms (approximately 850 square feet each), with each room capable of holding 42 people. Each meeting room would have a 100-square-foot storage area and the building would have two restroom areas, each totaling 100 square feet in size. The total grading footprint for this facility would be approximately 0.27 acre.



SOURCE: Impact Sciences, Inc. – December 2004

FIGURE 1

Project Site Location



EASEMENTS:

[A] ROAD DEED TO LOS ANGELES COUNTY, RECORDED APRIL 27, 1962 AS INSTRUMENT NO. 3541.

[B] ROAD DEED AND GRANT OF EASEMENT TO LOS ANGELES COUNTY, RECORDED MAY 17, 1994 AS INSTRUMENT NO. 949594.

[C] ROAD DEED AND GRANT OF EASEMENT TO LOS ANGELES COUNTY, RECORDED MAY 17, 1994 AS INSTRUMENT NO. 949594.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF PINE CANYON ROAD EAST OF THE EAST SECTION LINE OF SECTION 10 BEARING N 85°50' 50"W HAVING A DISTANCE OF 935.61 FEET AS SHOWN ON CSB-774-4.

PARKING DATA:

PARKING STALLS: 14
HANDICAPPED PARKING: 18
BUS STALLS: 5

BENCH MARK:

BM-111-50 1960 RCE 5869
L.A. COUNTY ENGINEER BRASS CAP.

IN THE CITY OF LAKE HUGHES, PINE CANYON ROAD, APPROXIMATELY 12 FEET EAST OF THE WEST ENTRANCE TO 24100 PINE CANYON ROAD, APPROXIMATELY 12 FEET SOUTH OF PINE CANYON ROAD IN CONCRETE SLAB.

ELEVATION: 4030.726 1929 DATUM

ZONING:

C3 (UNLIMITED COMMERCIAL)

ZONE W NOTE:

ZONE W REQUIREMENTS ARE BEING MET AS LONG AS ALL CURRENT AND FUTURE ACTIVITIES ARE CONFINED TO PRIVATE PROPERTY.

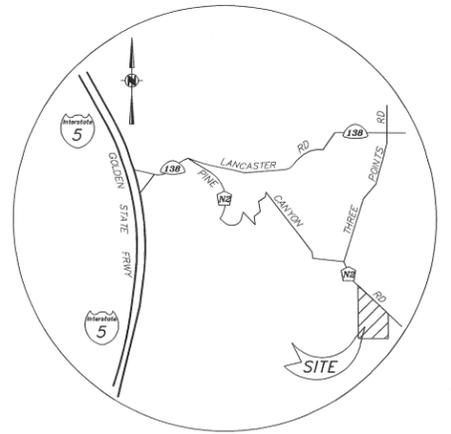
LAND AREA:

30.5 ACRES

FLOODZONE DATA:

THIS SITE LIES ON ZONE C PER FIRM MAP COMMUNITY PANEL 065043 0050 B DATED DECEMBER 2, 1980

- LEGENDS:**
- PROJECT BOUNDARY
 - (1100) — EXISTING GRADE CONTOUR
 - 1100 — PROPOSED GRADE CONTOUR
 - Y CUT SLOPE Y — PROPOSED CUT SLOPE
 - Y FILL SLOPE Y — PROPOSED FILL SLOPE
 - DAYLIGHT LINE
 - x 1100.0 — EXISTING SPOT ELEVATION
 - — DIRECTION OF FLOW
 - ▨ — PROPOSED AC PAVEMENT
 - ▨ — PROPOSED PCC PAVEMENT



VICINITY MAP
NO SCALE

INDEX OF SHEETS:

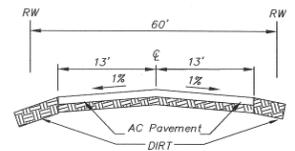
OVERALL SITE PLAN	SHEET 1
DORM, CAFETERIA & AMPHITHEATER GRADING PLAN	SHEET 2
PARKING, RETREAT & MEETING ROOM GRADING PLAN	SHEET 3

ASSESSOR'S PARCEL NO.

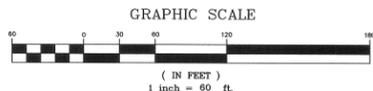
3243-014-021

PROPERTY OWNER:

YOUNG-NAK PRESBYTERIAN CHURCH OF LOS ANGELES
1721 N. BROADWAY AVE.
LOS ANGELES, CA 90031



TYPICAL SECTION
PINE CANYON RD



NOT FOR CONSTRUCTION



NO.	DATE	REVISIONS	BY	APPR

LEGAL DESCRIPTION:

THAT PORTION OF SECTION 10, TOWNSHIP 7 NORTH, RANGE 16 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, FILED IN THE DISTRICT LAND OFFICE ON AUGUST 25, 1903, BOUNDED NORTHERLY BY THE SOUTHERLY LINE OF PINE CANYON ROAD, AS GRANTED TO THE COUNTY OF LOS ANGELES BY DEEDS RECORDED ON JULY 11, 1933, AS INSTRUMENT NO. 671, IN BOOK 12220, PAGE 289, OFFICIAL RECORDS, AND ON MAY 22, 1934 AS INSTRUMENT NO. 807, IN BOOK 12816, PAGE 73, OFFICIAL RECORDS OF SAID COUNTY, EASTERLY BY THE EAST LINE OF SAID SECTION 10, SOUTHERLY BY THE NORTHERLY LINE OF GOVERNMENT LOT 7 OF SAID SECTION AND WESTERLY BY THE EASTERLY LINE OF GOVERNMENT LOT 6 OF SAID SECTION.

BENCHMARK: BM 111-50 1960 RCE 5869
DESCRIPTION: LOS ANGELES COUNTY ENGINEER BRASS CAP
LOCATION: 12 FEET EAST OF THE WEST ENTRANCE TO 24100 PINE CANYON RD, 12 FEET SOUTH OF PINE CANYON RD IN CONCRETE SLAB
RECORDED FROM: LANCASTER QUAD 1929
ELEVATION: 4030.726 DATUM: 1929

PLANS PREPARED FOR:
Legacy Construction & Development, Inc.
Bob Niesner
31360 Via Colina Suite 108
Westlake Village, CA 91362
Phone (818) 879-4619
Fax (818) 879-4654

PLANS PREPARED BY:
HOVELL & PILARSKI ENGINEERING, INC.
Simi Valley, California (805) 522-1900
GERALD F. HOVELL, RCE 33118

SHEET 1	PRELIMINARY GRADING PLAN	3 SHEETS
GRADING PLAN COVER SHEET:		
GR xxxxxxxxxxxx YOUNG-NAK RETREAT CENTER 24100 PINE CANYON ROAD Lake Hughes, California		
GERALD F. HOVELL	R.C.E. 33118	EXP. 6-30-06 DATE



2.2.7 Access, Paved Roads, and Additional Parking Areas

Access to the site would be provided at one location via Pine Canyon Road, approximately 15 miles southeast of SR-138. Parking would occur in one parking lot that could accommodate approximately 24 cars and five buses. The existing dirt roads leading to the proposed outdoor amphitheater and from the amphitheater to the proposed retreat center building would be paved.

A parking area would be constructed to the west of the proposed retreat center building and a paved road would be constructed connecting this parking area to the proposed meeting rooms. The total grading footprint for these project elements would be approximately 0.70 acre.

2.2.8 Water Supply

The existing Young Nak water supply well currently provides all water needs for the Center. Records indicate that in 2004 total pumping was 1,004,100 gallons (3.1 acre-feet), and in 2005 total pumping was 1,550,662 gallons (4.8 acre-feet). Over this same two-year period winter time average daily consumption ranged from 1 gallon per minute (gpm) to 2 gpm (1,440 to 2,880 gallons per day [gpd]), and summer average daily consumption ranged from 2.25 gpm to 5 gpm (3,240 to 7,200 gpd). This range, from winter to summer, directly reflects the number of visitors to the center, with summer weekend retreats representing maximum occupancy and consumption rates. The maximum average summertime pumping rate of 5 gpm is 30 percent of the pumping capacity of the existing groundwater pump. As a result, the existing well would provide sufficient water supply for the proposed project, and no major water supply improvements would be required, with the exception of the installation of pipes to deliver well water to the new buildings.

2.2.9 Wastewater Treatment

Because of the remote location of the project site, wastewater generated by the project would be treated using an underground septic and leachfield system. A new wastewater collection and disposal system (WREA, October 17, 2006) has been conceptually designed for the expanded center and it is expected that the existing septic systems would be abandoned. The new septic system being designed would be several hundred feet away, at approximately the same elevation as the water supply well (WREA, October 17, 2006). This placement would meet Los Angeles County Department of Health Services requirements of a minimum 100-foot separation of leachfield and water supply wells.

2.3 GRADING

Approximately 3.30 acres of the 30.5-acre project site would be subject to site grading. Therefore, the proposed grading design would retain approximately 89 percent of the site in its existing state. The majority of the proposed construction would occur in naturally flat areas or in areas that have previously been graded or disturbed. Site grading would not require heavy equipment. It is anticipated that grading could be completed with one small dozer and one backhoe. Although site grading would not be completed at one time it is anticipated that the total grading requirement would be less than 40,000 cubic yards and would require approximately 15 working days to complete. The grading limits are included as part of **Figure 2**.

2.4 FUEL MODIFICATION PLAN

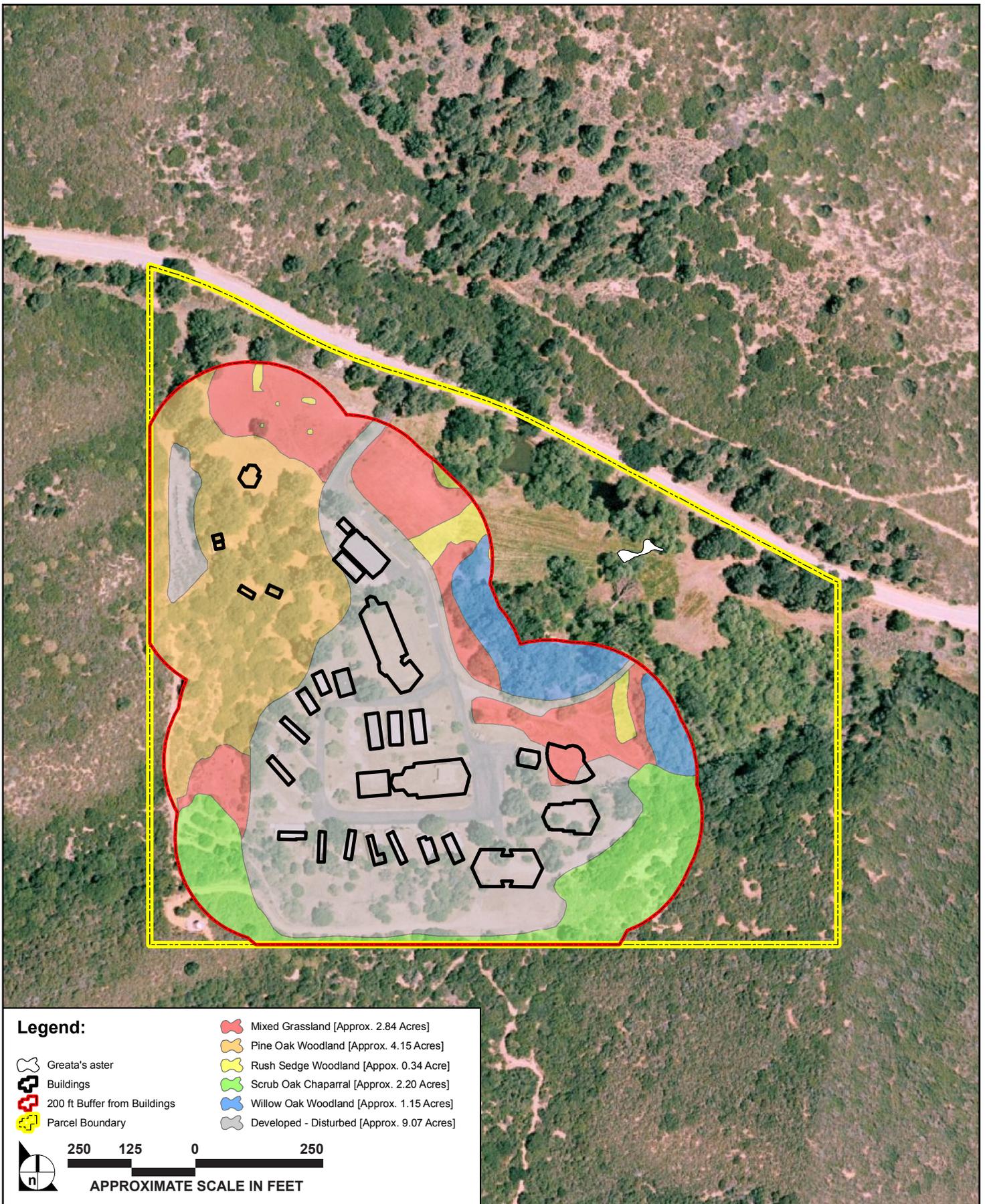
The Preliminary Fuel Modification Plan has been reviewed and approved by the County of Los Angeles Fire Department. The Fuel Modification Plan includes three zones, including a setback zone, an irrigated zone, and a thinning zone. These zones are described in more detail below and their extents are shown in **Figure 3**.

2.4.1 Zone A – Setback Zone

- A minimum of a 20 foot setback beyond the edge of combustible structures, attached accessory structures, or appendages and projections.
- Vegetation in this zone is limited to ground covers, green lawns, and a limited number of selected ornamental species.
- Irrigation by automatic or manual systems to maintain healthy vegetation with high moisture content.
- Any plants selected for planting in this zone shall be highly fire resistant and be selected from the approved list of plants for the given geographical area.
- Target trees, including eucalyptus, juniper, cypress, and pine, are not allowed within 10 feet of combustible structures. Other tree species may be allowed pursuant to the Fire Code, but are not recommended.

2.4.2 Zone B – Irrigated Zone

- Extends from the outermost edge of Zone A to 80 feet from structure.
- Irrigation by automatic or manual systems to maintain healthy vegetation with high moisture content.
- Any plants selected for planting in this zone shall be highly fire resistant and be selected from the approved list of plants for the given geographical area.



SOURCE: Richard Brinser Architect, GlobeExplorer - 2007, Impact Sciences, Inc. - December 2007

FIGURE 3

Maximum Extent of Fuel Modification

2.4.3 Zone C – Thinning Zone

- Extends from the outermost edge of Zone B to 200 feet from structure.
- This zone predominantly consists of existing vegetation with the removal of the majority of undesirable plants species, including chamise, red shank, California sagebrush, and buckwheats.
- Reduce fuel loading by reducing the fuel in remaining shrubs and trees, without substantially decreasing the canopy cover or removing soil holding root systems.
- Some replacement planting of less flammable species to meet minimum slope coverage requirements.
- Any plants selected for planting in this zone shall be highly fire resistant and be selected from the approved list of plants for the given geographical area.
- Removal of all dead vegetation, all fine fuels reduced to 3 inches in height.

2.5 LIGHTING PLAN

A lighting plan has been prepared for the project and is shown in **Appendix E, Lighting Plan**. The purpose of the lighting plan is to ensure that all lighting from the proposed development be directed and shielded so that light is not directed into preserved woodland and chaparral habitats on and adjacent to the site. Exterior lighting would include a number of 16-foot-high “arm-mounted” lights. These lights would utilize architectural elements and would include a cut-off type light fixture. The proposed lights would use 150-watt, high-pressure sodium bulbs.

2.6 REQUESTED DISCRETIONARY ACTIONS AND APPROVALS

In order to construct the proposed project, the applicant is seeking the following required permits:

- Los Angeles County SEA Conditional Use Permit;
- Los Angeles County Oak Tree Permit;
- Los Angeles County Parking Permit;
- Los Angeles County Grading Permit;
- United States Clean Water Act (CWA) Section 404 Permit;
- Regional Water Quality Control Board Section 401 CWA Water Quality Certification; and
- California Fish and Game Code Section 1601/1603 Streambed Alteration Agreement.

3.0 SUMMARY OF SIGNIFICANT IMPACTS

The Young Nak Church Retreat project has been designed so that impacts to sensitive biological resources on the site are the least possible in implementing the project. The two on-site ponds, willow-riparian woodland, willow-oak woodlands, and pine forest would not be directly impacted by the project. Additionally, 96.7 percent of the rush-sedge wetlands, 83 percent of the pine-oak forest, and 99.6 percent of the scrub oak chaparral would be retained. Development would primarily occur within the more disturbed portions of the site.

Significant direct impacts could still occur with respect to the following: loss of silvery legless lizard, loss of active nests of special-status birds, and loss of protected oaks. Indirect impacts could occur with respect to potential water overdraft for annual consumption and fire protection, and issues relating to septic capacity and handling, and its potential impact on the jurisdictional areas along the rift zone; increased light and glare; increased landscaping irrigation and stormwater runoff; increased populations of non-native plant species; increased human and domestic animal presence; and erosion, siltation, and fugitive dust resulting from grading/construction activities. All of the project-specific direct and indirect impacts could be mitigated to a less than significant level with implementation of the mitigation measures identified in this report.

4.0 METHODS

4.1 LITERATURE/DATABASE REVIEW

To evaluate the biological resources potentially occurring on the project site and adjacent area, literature searches and database reviews were conducted by Impact Sciences. Specifically, the most recent versions of the California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants were reviewed for the U.S. Geological Survey (USGS) 7.5-minute quadrangle on which the project site is located (Burnt Peak) and the eight surrounding quadrangles (La Liebre Ranch, Neenach School, Fairmont Butte, Lake Hughes, Green Valley, Warm Springs Mountain, Whitaker Peak, and Liebre Mountain) (see **Appendix E**). Additional literature sources germane to descriptions of the common plants and animals, plant communities, and special-status species occurring in Los Angeles County were reviewed (see **Section 13.0, References**).

ESA prepared a Biological Constraints Analysis (pursuant to SEATAC requirements) in April 1999. The relevant findings of the ESA report have been incorporated into this Biota Report.

4.2 FIELD SURVEYS

Reconnaissance-level and focused field surveys have been conducted to characterize the project site's existing conditions and to determine the potential of special-status plant and wildlife species to occur on the project site. A description of these surveys, including the methodology used and the dates the surveys were conducted, is provided below. Reports prepared for plant and wildlife surveys conducted by subconsultants are included in **Appendix B**. Résumés for biologists involved in the fieldwork and preparation of this report are included in **Appendix H**.

4.2.1 Reconnaissance-Level Surveys

Impact Sciences conducted general reconnaissance-level surveys on the project site on December 26, 29, and 30, 2002, May 20 and November 16, 2004, and October 18, 2007. The intent of these surveys was to describe general biological resources occurring on the site and to identify the need for additional biological surveys. The plant communities occurring on the site were also mapped during these surveys.

4.2.2 Plant Surveys

Plant surveys were conducted by Impact Sciences on April 17, May 22, 2003, and October 18, 2007, by Bruyea Biological Consulting on July 13, 2003, and by Brent Miller on March 30 and June 21, 2005. The intent of the surveys was to document any special-status plant species observable at the time of the surveys and to list all plant species observed on the site. The surveys included 100 percent coverage of the project site, but emphasized the portions of the site proposed for development.

4.2.3 Jurisdictional Wetland Delineation

A jurisdictional wetland delineation was conducted by Impact Sciences on August 3, 2004. Published Army Corps of Engineers (ACOE) and California Department of Fish and Game (CDFG) protocols were utilized in the field, and the location of riparian/wetland resources potentially under the jurisdiction of these agencies was delineated with a sub-meter accurate GPS unit.

4.2.4 Least Bell's Vireo and Southwestern Willow Flycatcher Surveys

Impact Sciences conducted surveys for least Bell's vireo and southwestern willow flycatcher in accordance with U.S. Fish and Wildlife Service (USFWS) protocols as set forth in *Least Bell's Vireo Guidelines* (2001) and *Southwestern Willow Flycatcher Protocol* (2000). The surveys were conducted on June 10, 17, and 24 and July 1, 8, 18, 23, and 30, 2004.

4.2.5 Sensitive Butterfly Survey

A survey for sensitive butterfly species was conducted by Bruyera Biological Consulting on July 13, 2003, during the normal flight season for common and special-status butterfly species potentially occurring on the site. The survey's emphasis was on observation of adult butterflies and the presence or absence of associated adult and larval host food plants.

4.2.6 Special-Status Amphibian and Reptile Surveys

Peter H. Bloom conducted surveys for California red-legged frog on the project site pursuant to the accepted USFWS survey protocol for this species. Searches and/or habitat evaluations were also conducted for yellow-blotched salamander, Tehachapi slender salamander, western spadefoot toad, arroyo toad, foothill yellow-legged frog, mountain yellow-legged frog, southwestern pond turtle, coast horned lizard, silvery legless lizard, and San Bernardino ringneck snake. The surveys for all these species were conducted on July 26, 30, and 31, 2003.

4.2.7 Oak Tree Survey

Impact Sciences conducted an oak tree survey to identify trees on the site protected by the County of Los Angeles Oak Tree Ordinance (CLATO). The survey included all areas on the project site occurring within 200 feet of the proposed grading limits. Due to restrictions on fuel modification within the national forest and access limitations on neighboring private properties, the survey did not include portions of the Angeles National Forest or neighboring private property within 200 feet of the proposed grading limits. The surveys were conducted on December 23, 2004, and January 5, 6, and 11, 2005.

5.0 SETTING

5.1 GENERAL CHARACTERISTICS OF THE PROJECT SITE

The project site is located within the western Liebre Mountains and is bordered to the north by Pine Canyon Road and to the south by the Angeles National Forest. The project site is within the Burnt Peak USGS 7.5-minute quadrangle (**Figure 4**). The site is positioned near three converging geographic regions, including the Mojave Desert (approximately 4 miles northeast of the site), the Tehachapi Mountains (approximately 15 miles northwest of the site), and the greater San Gabriel foothills immediately to the south (including Liebre and Sawmill Mountains and the Angeles National Forest).

The site is currently used as a church retreat center. Portions of the site have been developed and/or graded, while other portions of the site are relatively undisturbed. The site vegetation is characterized as disturbed/landscaped in areas associated with existing development, and as grasslands, seasonal wetlands, willow riparian woodland, willow-oak woodland, scrub oak chaparral, pine forest, and pine-oak woodland. Two sag ponds occur along the northern edge of the property and are characteristic of similar ponds along the San Andreas rift zone, of which the site is a part.¹

5.1.1 Significant Ecological Area No. 58

The project site is within SEA No. 58 “Portal Ridge/Liebre Mountains” (see **Figure 5**). This SEA is large (approximately 29,880 acres) and contains a unique mosaic of plant communities representing a transitional area between the Mojave Desert, the Transverse ranges, and the Tehachapi Mountains.

5.1.2 Geology and Topography

The project site is within the San Andreas rift zone and the associated fault has created a trough along the northern boundary of the project site. The project site gently slopes upward from north to south, with elevations ranging from approximately 4,020 feet above mean sea level (msl) along the northern site boundary to approximately 4,200 feet msl at the southwest corner of the site. The project site is bordered to the south, east, and west by steeper slopes.

5.1.3 Soil Characteristics

According to the Antelope Valley Area Soil Survey (Soil Conservation Service 1970), four soil types occur on the project site: Chino loam, Oak Glen Sandy loam, Millsholm rocky loam, and Godde rocky loam.

¹ The Biological Constraints Analysis (ESA 1999) identified a third sag pond in the northeastern portion of the site. This third sag pond is not on the project site and is located outside of the property boundary.

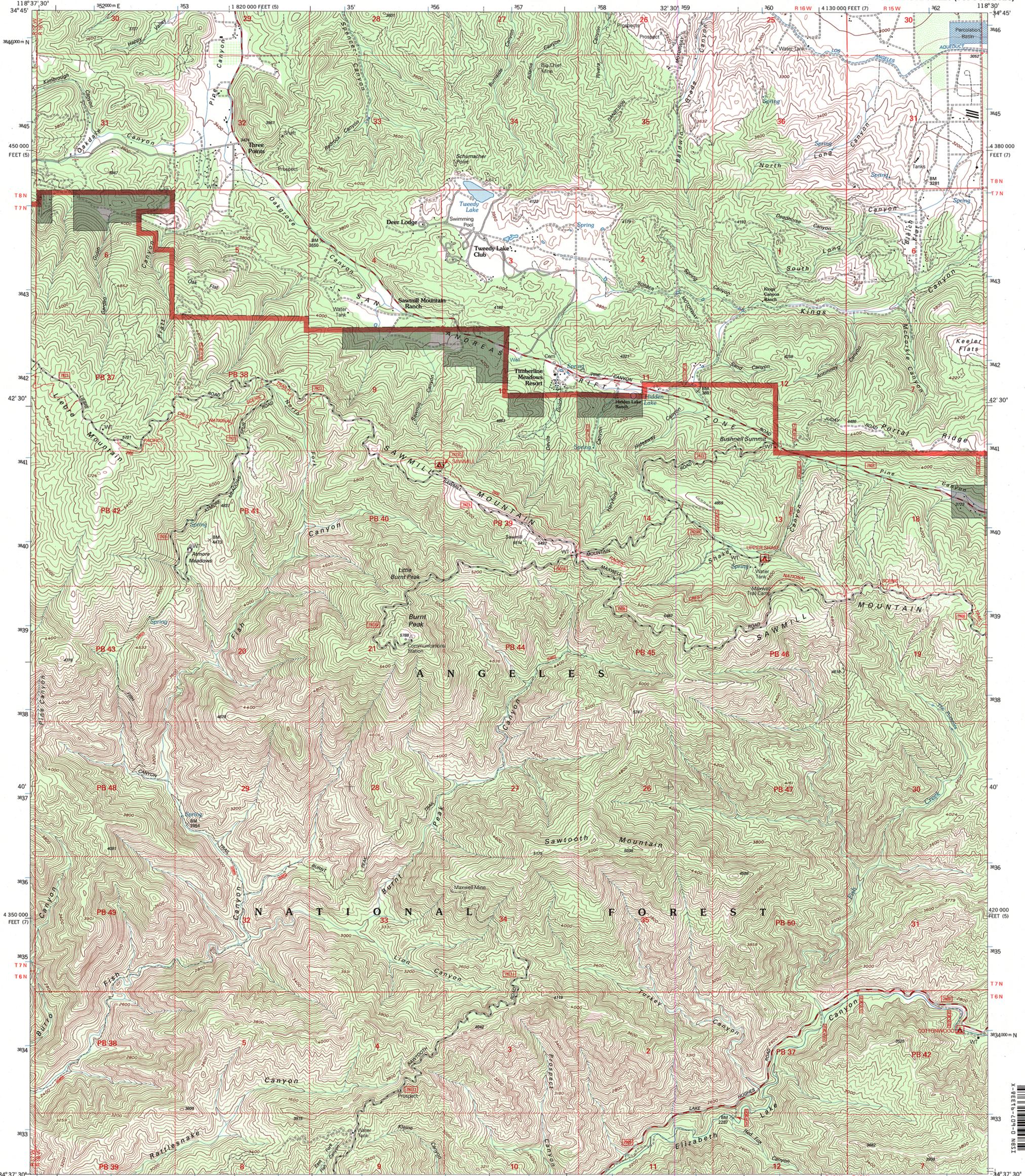
Chino loam is a wet meadow soil that is a poorly drained mixed granitic alluvium. Oak Glen sandy loam is a well-drained granitic alluvium soil that is neutral to slightly acidic. Millsholm rocky loam is well-drained shale and fine sandstone with a neutral pH and low fertility. Godde rocky loam is a well-drained soil that formed in weathered material from hard schist. These soils are further discussed below in **Table 1, On-Site Soils**, and the locations of the mapped soil polygons on the site are shown in **Figure 6**.

Table 1
On-Site Soils

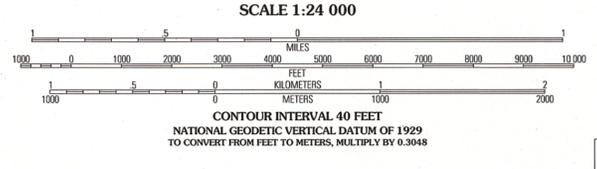
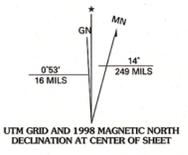
Mapped Soil	Soil Characteristics <i>Descriptive terms are defined in SCS soil surveys.</i>	Associated On-Site Plant Communities
Chino loam (Co)	<ul style="list-style-type: none"> • These soils are well drained. • Permeability is moderately slow. • Runoff is very slow with a no or slight hazard of erosion. 	Willow riparian woodland, rush-sedge wetland, willow-oak woodland, mixed grassland
Godde rocky loam (GdF)	<ul style="list-style-type: none"> • These soils are well drained. • Permeability is moderate. • Runoff is rapid and the hazard of erosion is high. 	Pine-oak woodland, mixed grassland
Millsholm rocky loam (MhE2)	<ul style="list-style-type: none"> • These soils are somewhat poorly drained. • Permeability is moderate. • Runoff is medium to rapid with a moderate to high hazard of erosion. 	Pine forest, pine-oak woodland
Oak Glen sandy loam (ObC)	<ul style="list-style-type: none"> • These soils are well drained. • Permeability is moderately rapid. • Runoff is very slow to medium with a slight to moderate hazard of erosion. 	Scrub oak chaparral, willow-oak woodland, willow riparian woodland, rush-sedge wetland, mixed grassland, annual grassland

5.1.4 Drainage Patterns

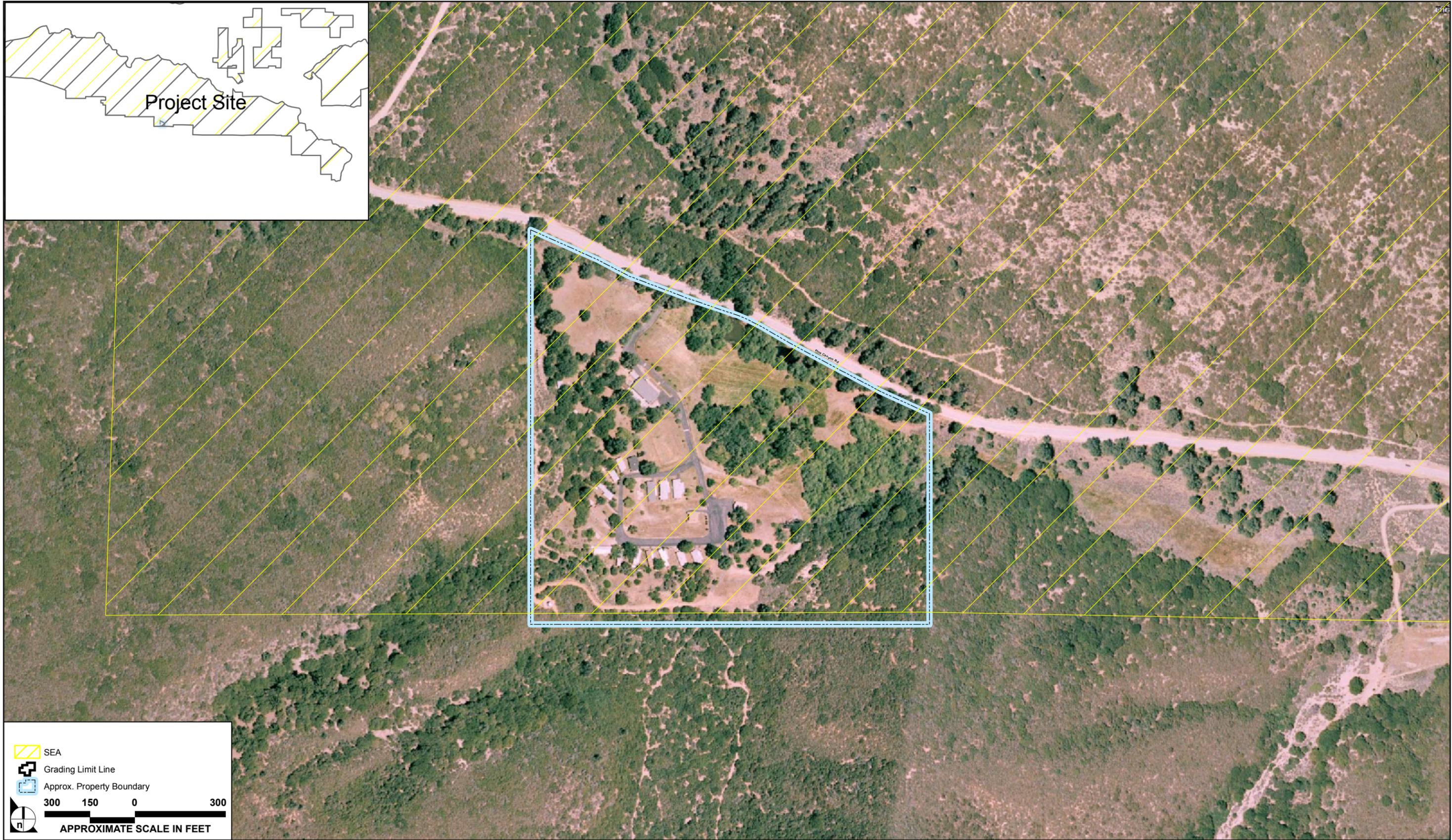
Surface flow generally moves south to north across the site towards the two sag ponds located along the northern project boundary. The USGS quadrangle map (see **Figure 4**) shows a blueline drainage flowing from south to north through the property. This drainage area is not associated with a defined channel but receives large volumes of sheet flow which infiltrate into a meadow area in the northwest portion of the site. The two ponds are part of the hydrologically connected system of streams and ponds extending along the San Andreas Rift Zone. The water source for the on-site ponds and wetlands is from groundwater discharge and runoff from the adjacent Pine Canyon Road and the impervious surfaces associated with the existing facilities on the site.



Produced by the United States Geological Survey 1988 Revision by USDA Forest Service 1995 Topography compiled 1956. Planimetry derived from imagery taken 1994 and other sources. Public Land Survey System and survey control current as of 1995 North American Datum of 1927 (NAD 27). Projection and 10 000-foot ticks: California coordinate system, zones 7 and 5 (Lambert conformal conic) Blue 1000-meter Universal Transverse Mercator ticks, zone 11 North American Datum of 1983 (NAD 83) is shown by dashed corner ticks The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software Non-National Forest System lands within the National Forest Inholdings may exist in other National or State reservations This map is not a legal land line or ownership document. Public lands are subject to change and leasing, and may have access restrictions; check with local offices. Obtain permission before entering private lands. Protraction Blocks (PB) are unsurveyed land of uncertain acreage Areas covered by dashed light-blue pattern are subject to controlled inundation



Legend for highways and roads, including Interstate, U.S., State, County, National Forest, and National Forest Trail symbols. Also includes a legend for road composition: Unspecified, Paved, Gravel, Dirt, Unimproved, 4 wheel drive, Trail, Gate, Barrier. Includes a table for Protraction Blocks (PB) and a title block for BURNT PEAK, CA 1995, NIMA 2253 II NE - SERIES V895.



SOURCE: Air Photo USA - 2003, Hovell & Pilarski Engineering, Inc. - February 2006, Impact Sciences, Inc. - October 2007

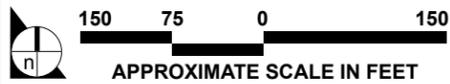
FIGURE 5

Project Site in Relation to SEA 58



Legend:

- Soil Classification
- Project Boundary



SOURCE: Impact Sciences, Inc. – November 2007

FIGURE 6

On Site Soils

6.0 BIOLOGICAL RESOURCES

6.1 PLANT COMMUNITIES

Vegetation on the Young Nak site consists of eight plant communities, including willow riparian woodland, willow-oak woodland, pine forest, pine-oak woodland, scrub oak chaparral, mixed grassland, rush-sedge wetland, and disturbed woodland/grassland.² Where appropriate, the on-site plant communities are described below based on the *Vegetation Classification and Mapping Program* (CDFG 2003). However, given the extent of intergradation of the plant communities on the site, several of the plant communities are described below based on species composition. The plant communities have been mapped as shown on **Figure 7**.

6.1.1 Willow Riparian Woodland

There are 1.5 acres of willow riparian woodland on the project site. As shown in **Figure 7**, this plant community occurs along the northern site boundary in association with the two sag ponds. The dominant tree species is arroyo willow (*Salix lasiolepis*), but scattered valley oaks (*Quercus lobata*) are also present. The understory is predominantly composed of wetland-associated species such as bulrush (*Schoenoplectus acutus*), stinging nettle (*Urtica dioica*), and rushes (*Juncus* spp.), but also contains upland-associated plant species such as giant wildrye (*Leymus condensatus*) and goldenrod (*Euthamia occidentalis*).

6.1.2 Willow-Oak Woodland

A total of 3.9 acres on the project site is characterized by the intergradation of willow riparian woodland and oak woodland communities. As shown in **Figure 7**, these willow-oak woodlands occur in the central and northeast portions of the site. Arroyo willow and valley oak are the dominant tree species, but western sycamore (*Platanus racemosa*), alder (*Alnus rhombifolia*), and interior live oak (*Quercus wislizeni*) also occur. The understory is a mix of wetland and upland-associated plant species.

6.1.3 Pine Forest

There is 0.8 acre of pine forest on the project site. As shown in **Figure 7**, this plant community occurs at scattered locations along the northern project boundary and is not a contiguous community. These areas are characterized by isolated stands of mature gray pines (*Pinus sabiniana*).

² The Biological Constraints Analysis (ESA 1999) also identified big sagebrush as a plant community on the site. Areas with a high density of sage scrub (*Artemisia tridentata*) occur within and adjacent to the scrub oak chaparral plant community. Properly, big sagebrush is not identified as its own plant community in this document, but is included as part of the scrub oak chaparral community.

6.1.4 Pine-Oak Woodland

A total of 4.6 acres on the project site is characterized by the intergradation of pine forest and oak woodland. As shown in **Figure 7**, pine-oak woodland occurs in the western portion of the site. Gray pine and valley oak are the dominant tree species. The understory is similar to the mixed grassland community (see heading 6.1.6).

6.1.5 Scrub Oak Chaparral

There are 4.7 acres of scrub oak chaparral on the project site. As shown in **Figure 7**, this plant community occurs in the southeast and southwest corners of the project site. These areas are dominated by scrub oak (*Quercus berberidifolia*), but also contain gray pine, interior live oak, chamise (*Adenostoma fasciculatum*), and big Great Basin sagebrush (*Artemisia tridentata* ssp. *tridentata*).

6.1.6 Mixed Grassland

There is a total of 4.0 acres of mixed grassland on the project site. As shown in **Figure 7**, this plant community occurs in the northwest, central, and northeastern portions of the project site. The mixed grassland is composed of a mixture of native and non-native grasses and forbs. Relative cover by native species within this community is estimated at least 10 percent. Native grasses and forbs observed include one-sided blue grass (*Poa secunda*), few-flowered fescue (*Vulpia microstachys*), salt heliotrope (*Heliotropium curassavicum*), and western vervain (*Verbena lasiostachys* var. *scabrida*). Non-native species observed within this community include rescue grass (*Bromus catharticus*), ripgut brome (*B. diandrus*), bulbous blue grass (*Poa bulbosa*), slender-pod mustard (*Hirschfeldia incana*), filaree (*Erodium botrys*), common plantain (*Plantago major*), and cocklebur (*Xanthium strumarium*).

6.1.7 Rush-Sedge Wetland

There are 1.5 acres of rush-sedge wetland on the project site. As shown in **Figure 7**, this plant community occurs at several locations in the northern portion of the project site. The largest rush-sedge wetland occurs adjacent to the south of the willow riparian woodland. Smaller rush-sedge wetlands occur along the margins of the willow-oak woodland in the northeast portion of the site and within the mixed grassland in the northwest portion of the site. These wetlands are dominated by wire rush (*Juncus balticus*), common rush (*Juncus patens*), iris-leaved rush (*Juncus xiphioides*), and deer-bed sedge (*Carex praegracilis*).



Legend:

- | | | | | | |
|--|-----------------------|---|--------------------------|---|------------------|
|  | Developed - Disturbed |  | Rush Sedge Woodland |  | Project Boundary |
|  | Mixed Grassland |  | Scrub Oak Chaparral | | |
|  | Pine Forest |  | Willow Oak Woodland | | |
|  | Pine Oak Woodland |  | Willow Riparian Woodland | | |



SOURCE: Impact Sciences, Inc. – November 2007

FIGURE 7

6.1.8 Disturbed Woodland/Grassland

There is a total of 9.5 acres of disturbed woodland/grassland habitat on the project site. As shown in **Figure 7**, these areas are associated with existing development, areas that have been graded, or that have been subject to a high level of disturbance. These disturbed areas are dominated by annual grasses, filaree, slender pod mustard (*Hirschfeldia incana*) and scattered natives such as Lemmon's lessingia (*Lessingia lemmonii*). A stand of interior live oak occurs within this community, with the highest density occurring in the southern portion of the site. In general, these trees are in poor health and are infested by mistletoe (*Phoradendron villosum*).

6.1.9 Oak Woodlands

All habitats on site with a substantial overstory of oak are potentially regulated through the California Oak Woodlands Conservation Law (SB 1334), subject to the determination of Los Angeles County. Vegetation communities on site with dominance or co-dominance of oak trees include the Willow-Oak Woodland, Pine-Oak Woodland, and portions of the disturbed woodland/grassland communities.

6.2 COMMON WILDLIFE

Common species of wildlife that were observed during field surveys are discussed below. A list of observed and potentially occurring wildlife species and their expected relative abundance on the project site is provided in **Appendix A**. This list is based on the available literature and on knowledge of the area by local biologists. Special-status wildlife species known to occur or that have potential to occur on the site are discussed later in this document.

Mosquito fish (*Gambusia affinis*) were observed in both ponds. One amphibian, pacific tree frog (*Pseudacris regilla*), was observed on the site. Reptiles observed on the site include western whiptail (*Aspidoscelis tigris*) and western fence lizard (*Sceloporus occidentalis*). Mammals observed or deduced to be present through sign include coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), desert cottontail (*Sylvilagus audubonii*), Merriam's chipmunk (*Tamias merriami*), and Botta's pocket gopher (*Thomomys bottae*).

The woodland, chaparral, and isolated trees on and surrounding the project site provide nesting and foraging habitat for numerous common bird species. Birds observed on the site include California quail (*Callipepla californica*), acorn woodpecker (*Melanerpes formicivorus*), Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), western scrub jay (*Aphelocoma californica*), ash-throated flycatcher (*Myiarchus cinerascens*), black phoebe (*Sayornis nigricans*), Bewick's wren (*Thryomanes bewickii*), oak titmouse (*Baeolophus inornatus*), red-breasted nuthatch (*Sitta Canadensis*), California towhee (*Pipilo crissalis*), wrentit (*Chamaea fasciata*), lesser goldfinch (*Carduelis psaltria*), dark-eyed junco (*Junco hyemalis*) and house finch (*Carpodacus mexicanus*).

7.0 CHARACTERISTICS OF SURROUNDING AREA

7.1 EXISTING LAND USES

The project site is bordered to the south by the Angeles National Forest and to the north, east, and west by large expanses of privately owned undeveloped land. White Oaks Ranch, a horse ranch and garden establishment, is located approximately 0.5 mile north of the project site. Tweedy Lake Club, a low-density residential community, is located immediately west of White Oaks Ranch. The proposed Centennial development (on Tejon Ranch) is located approximately 12 miles northwest of the project site.

The project site is bordered to the north by Pine Canyon Road. SR-138 is located approximately 5 miles to the north. Interstate 5 is located approximately 15 miles west of the project site.

7.2 REGIONAL PLANT COMMUNITIES

Scrub oak chaparral is the dominant plant community in the surrounding area. The intergradation of pine forest/scrub oak chaparral and oak woodlands on north-facing slopes and within incised canyons, are also common in the project area.

7.3 REGIONAL OPEN SPACE AREAS

As shown in **Figure 8**, the project site is bordered to the south by the Angeles National Forest. The portion of the Angeles National Forest bordering the site is characterized by scrub oak chaparral. Several footpaths provide access to the Angeles National Forest from the project site. Large undeveloped areas occur to the north, east, and west of the site; these areas are privately owned and are not dedicated open space areas.

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FIGURE 8

Regional Open Space Areas

8.0 WILDLIFE HABITAT LINKAGES

The value of the project site as a wildlife movement pathway has been modified by existing development and use as a retreat center. Nevertheless, the project site does provide wildlife movement opportunity. Given the project site's location surrounded by the Angeles National Forest and other privately held but undeveloped properties, wildlife may be expected to move in and around the site while undertaking daily home-range activities as well as seasonal movements. The less-disturbed habitats on the site, including the willow riparian woodland along the northern project boundary, the willow-oak woodland along the eastern project boundary, and the pine-oak woodland along the western project boundary, provide ample foraging and roosting opportunities for dispersing and migratory birds, potentially including southwestern willow flycatcher and least Bell's vireo. The riparian habitat is part of a chain of sag ponds and streams coursing along the San Andreas Rift Zone which extends the entire length of the Liebre Mountains and beyond to the northwest and southeast. This system of riparian habitats is the closest thing to a natural corridor within the region. Upland habitats, because of their non-linear arrangement are not likely to provide particularly directional routes for movement (unless they are otherwise constrained by dense development or other uses unattractive to wildlife). However, the upland habitats are important in maintaining opportunities for reciprocal movement between various habitat types, and their long-term stability is important as an avenue for gene flow among metapopulations of various plant and wildlife species in the region.

Disturbed areas on the site are not completely discouraging to wildlife use. Several deer were noted browsing and moving through annual grassland and rush/sedge wetland areas in the northern portion of the site during the October 2007 site visit. Throughout the site, there is also evidence of frequent use by wildlife of disturbed substrates such as dirt roads and trails, as these areas are presumably easily traversed yet near to cover and food resources. Highly mobile animals such as medium and large sized mammals are expected to use open areas on the site at times, such as at night, when human presence is not a factor in frightening them away. Smaller animals are expected not to venture across habitat types to the same extent that large animals do, and they may be expected to move around developed portions of the site, if upland specialists, or to be confined in their movements to the riparian corridor, if riparian or wetland specialists.

9.0 SENSITIVE BIOLOGICAL RESOURCES

The following discussion focuses on those species and plant communities considered of special status by state and/or federal resource agencies, and by recognized conservation organizations, that are known to occur, or potentially occur, on the Young Nak Retreat Center site.

9.1 SPECIAL-STATUS PLANTS

Special-status plants include those that are state or federally listed as Rare, Threatened, or Endangered, federal candidates for listing, proposed for state or federal listing, or listed as State Special Concern species, or included on Lists 1, 2, 3, or 4 of the CNPS.

Based on a review of the most recent versions of the CNDDDB and the CNPS database for the Burnt Peak USGS quadrangle and the surrounding La Liebre Ranch, Neenach School, Lake Hughes, Green Valley, Fairmont Butte, Liebre Mountain, Whitaker Peak, and Warm Springs Mountain USGS 7.5-minute quadrangles, and the previously prepared Biological Constraints Analysis (ESA 1999), 11 special-status plant species were identified as being documented in the project area. These species are identified in **Table 2, Special-Status Plant Species Known to Occur in the Project Area**, along with their regulatory status, habitat requirements, flowering period, and potential to occur on the site. A listing of special-status plant species documented in the project area by the CNDDDB is shown in **Appendix C**.

As previously discussed (Section 4.2.2), special-status plant surveys were conducted on the project site on April 17 and May 22, 2003, July 13, 2003, and October 18, 2007. A list of the plant species observed during these surveys is included in **Appendix A**.

One special status species, Greata's aster (*Symphyotrichum greatae*), occurs on site. Based on range and habitat suitability, an additional three species may occur on the site: Kusche's sandwort (*Arenaria macradenia* var. *kuschei*), Ross's pitcher sage (*Lepechinia rossii*), and short joint beavertail (*Opuntia basilaris* var. *brachyclada*).

Short-joint beavertail is assumed not to be present as it would have been conspicuous at any time of year, regardless of flowering. Ross's pitcher sage was first described in 2006 and would not have been known at the time of the earlier surveys. Nevertheless, it is assumed the species does not occur on the site, as vegetative parts of a plant attributable to the genus *Lepechinia* would have been apparent during surveys and none were recorded.

Kusche's sandwort was not recorded, but aboveground parts of the plant are short lived and may not be conspicuously apparent in a given year. Thus, its potential to occur cannot be discounted.

Table 2
Special-Status Plant Species Known to Occur in the Project Area

Species	Status	Habitat/Elevation	Growth Form and Blooming Period	Expectation of Occurrence
Kusche's sandwort <i>Arenaria macradenia</i> var. <i>kuschei</i>	1B.1	Granitic soils in openings within scrub oak chaparral and oak woodland communities between 1,220–1,700 m msl	Perennial herb June–July	<i>Potential:</i> Not observed during appropriately timed survey (Brueya 2003); suitable habitat present in oak-dominated chaparral and woodland habitats on site.
Nevin's barberry <i>Berberis nevinii</i>	FE/CE/1 B.1	Sandy or gravelly soils on steep, north-facing slopes or in low grade sandy washes within chaparral, cismontane woodland, coastal scrub, and riparian scrub communities between 295–825 m msl	Shrub (evergreen) March–April	<i>Not Expected:</i> Identifiable at any time of year; however, not observed during appropriately timed surveys (Impact Sciences 2003); the site is outside of the species' known range.
Round-leaved filaree <i>California macrophylla</i>	1B.1	Clay soils within cismontane woodland, and valley and foothill grassland communities between 15–1,200 m msl	Annual herb March–May	<i>Not expected:</i> Not observed during appropriately timed surveys (Impact Sciences 2003); clay soils not present on site.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	FC/CE/1 B.1	Sandy soils in coastal scrub communities between 150–1,220 m msl	Annual herb April–June	<i>Not expected:</i> Known from Elizabeth Lake and areas westward to Castaic; however, appropriate scrub habitats are lacking on this site.
San Gabriel bedstraw <i>Galium grande</i>	1B.2	Rocky slopes in broad-leaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest communities between 425–1,500 m msl	Deciduous shrub January–July	<i>Not Expected:</i> Not observed during appropriately timed survey (Impact Sciences 2003); project site lacks characteristic rocky slopes.
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	1A	Coastal salt and freshwater marshes and swamps between 10–1,675 m msl	Rhizomatous herb August–October	<i>Not expected:</i> wetland habitats on site are not perennially inundated; not observed during surveys conducted outside of the flowering season, though vegetative parts of the plant would have been identifiable if present.
Ross' pitcher sage <i>Lepechinia rossii</i>	1B.2	Chaparral habitats between 305–790 m msl	Evergreen shrub May–September	<i>Potential:</i> habitat present; known in the Liebre Mountains only from Ruby and Clearwater Canyons (Boyd, 1999).

Species	Status	Habitat/Elevation	Growth Form and Blooming Period	Expectation of Occurrence
Short-joint beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon/juniper woodland communities between 425–1,800 m msl	Stem succulent April–June	<i>Not expected:</i> suitable habitat present in southern portions of the site; however, this species is easily identifiable at any time of year if present. No cactus species were observed during surveys.
Greata's aster <i>Symphotrichum greatae</i>	1B.3	Mesic habitats in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland communities between 300–2010 m msl	Rhizomatous herb June–October	<i>Present</i>
Mt. Pinos onion <i>Allium howellii</i> var. <i>clokeyi</i>	1B.3	Great Basin scrub, and pinyon/juniper woodland communities between 1,300 – 1,850 m msl	Bulbiferous herb Apr–June	<i>Not expected:</i> small areas of appropriate habitat exist within big Great Basin sagebrush dominated habitats, but not observed during appropriately timed surveys and the site is outside of the known range of the species.
Slender mariposa lily <i>Calochortus clavatus</i> var. <i>gracilis</i>	1B.2	Openings and grassy areas within chaparral, coastal scrub, and valley and foothill grassland communities between 360 – 1000 m msl	Perennial herb March–June	<i>Not Expected:</i> Not observed during appropriately timed survey (Impact Sciences 2003); habitat is generally too densely vegetated to support the species.

KEY:Federal

FE: Federally Endangered

FC: Federal Candidate

State

CE: California Endangered

CR: California Rare

CNPS

List 1B: Plants Rare and Endangered in California and elsewhere

List 2: Plants Rare, Threatened, or Endangered in California, but more common elsewhere

List 4: Plants of Limited Distribution – A Watch List

9.1.1 Oaks

CLATO Section 22.56.2050 through 22.56.2260 protects oak trees with a single-stem diameter of at least 8 inches or a combined diameter of 12 inches for the two largest stems, as measured 4.5 feet above natural ground. A heritage oak, as defined by CLATO, is any species in the genus *Quercus* with a single stem measuring 36 inches or more as measured 4.5 feet above natural ground, or any oak regardless of diameter having a significant historical or cultural importance to the community. CLATO requires that all potential impacts to oak trees regulated by these ordinances be preceded by an application to the County that includes a detailed oak tree report. Mitigation for impacts to oak trees is usually required as a condition of an oak tree permit issued by the County.

A survey was conducted of the on-site oak trees occurring within 200 feet of the proposed grading limits. Due to restrictions on fuel modification within the national forest and to access limitations on neighboring private properties, the survey did not include portions of the Angeles National Forest or neighboring private property within 200 feet of the proposed grading limits. The survey identified 271 oaks potentially regulated by CLATO. Blue oak (*Quercus douglasii*), scrub oak, interior live oak, canyon live oak (*Quercus chrysolepis*), valley oak, and black oak (*Quercus kelloggii*) were recorded. Of the 271 oaks identified, 8 are planned for removal, one of which is a heritage tree, and 10 may be encroached during grading activities. The locations of the surveyed oaks are shown in **Figure 9**.

9.1.2 Sensitive Plant Communities

CDFG monitors the distribution, extent, and relative health of all of California's plant communities. The plant communities considered by CDFG to be of limited distribution and of highest priority are tracked in the CNDDDB. These plant communities are considered to be "sensitive" plant communities. Of the plant communities found on the project site, willow riparian woodland, and willow-oak woodland are considered sensitive by CDFG, and all woodlands with a substantial oak component are potentially covered under the California Oak Woodlands Conservation Law (SB 1334), subject to the determination of Los Angeles County. See heading 6.1 for a more detailed discussion of these plant communities and their distribution on the project site. See heading 9.3 for a discussion of the on-site plant communities under the jurisdiction of CDFG and ACOE.



- Not Impacted
- Impacted
- Removed
- Tree Protective Zone
- Grading Limit Line
- Oak Tree Restoration Area
- 200 Feet from Grading Limits
- Approx. Property Boundary

A tree protective zone was determined by taking the largest canopy distance and adding 5 ft. Protective Zone was only mapped for those trees within 50 ft. of the Grading Limit Line.

9.2 SPECIAL-STATUS WILDLIFE

Special-status wildlife species include species that are state or federally listed as Threatened or Endangered, species identified as candidates or proposed for state or federal listing as Threatened or Endangered, and species listed as State Special Concern species, or that are considered Federal Birds of Conservation Concern. In addition, wildlife species that otherwise meet the definition of “Rare, Threatened, or Endangered” as defined by Section 15380 of the *State California Environmental Quality Act (CEQA) Guidelines*, are also considered to be of special status.

Based on a review of the CNDDDB and the biological reports prepared for the project site, 40 special-status wildlife species were identified that are known to occur in the project region. This listing formed the basis of the following analysis and each of the identified species is addressed below in one of the following two headings: heading **9.2.1** addresses the special-status wildlife species that are known to occur in the project area, but for which the project site does not provide suitable habitat to support the species as a resident or nesting species; and heading **9.2.2** addresses the special-status wildlife species that have been observed or could occur on the site as a resident or nesting species. A listing of special-status wildlife species identified by the CNDDDB in the project area relative to the location of the project site is shown in **Appendix C**.

9.2.1 Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site

The project site lacks suitable habitat to support the species addressed below in **Table 3, Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site**, as a resident or nesting species. **Table 3** provides the species’ regulatory status and habitat requirements, and an explanation of why the species is not expected to reside on or significantly utilize the project site. The results of the focused special-status amphibian and reptile surveys (Bloom 2003) and the sensitive butterfly surveys (Bruyey 2003) have been incorporated into **Table 3**. As the species identified in **Table 3** are not expected to reside on or significantly utilize the project site, they are not further discussed in this document.

Table 3
Special-Status Wildlife Species Not Expected or Rarely Occurring on the Project Site

Species	Status	Habitat	Discussion of Absence/Rarity On Site
<i>Insects</i>			
Monarch butterfly (wintering sites) <i>Danaus plexippus</i>	SA	Listing refers to wintering sites only. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	Several individuals were observed on the site during the butterfly survey conducted in 2003. California milkweed (<i>Asclepias californica</i>) is present on the site and could be used as an oviposition site for passing females. However, based on the site's distance from the coast, it is highly unlikely that the site would be utilized by large numbers of overwintering monarch adults (Bruyey 2004).
Comstock's blue <i>Euphilotes battoides comstocki</i>	SA	Associated with sulphur flower (<i>Eriogonum umbellatum</i>).	No individuals or its larval host plant were observed on the project site during the butterfly survey conducted in 2003 (Bruyey 2004).
Veined blue <i>Icaricia neurona</i>	R	Associated with Wright's buckwheat (<i>Eriogonum wrightii</i>).	No individuals or its larval host plant were observed on the project site during the butterfly survey conducted in 2003 (Bruyey 2004).
San Emigdio blue butterfly <i>Plebulina emigdionis</i>	R	Restricted to Southern California in lower Sonoran and riparian habitats from the Owens Valley south to the Mojave River and west to northern Ventura and Los Angeles Counties. Associated with four-wing saltbrush (<i>Atriplex canescens</i>).	No individuals or its larval host plant were observed on the project site during the butterfly survey conducted in 2003 (Bruyey 2004).
Unsilvered fritillary butterfly <i>Speyeria adiastra atossa</i>	SA	Little known regarding the habitat requirements of this species.	Presumed extinct. Not observed on the project site; project site lacks the presumed host plant (violets) and has been subjected to various human uses.
Tehachapi Mountain silverspot butterfly <i>Speyeria egleis tehachapina</i>	SA	Grassy meadows and openings in pine forests. Utilizes herb violets (<i>Viola</i> sp.) as primary larval host plants. It is strongly suspected that this species uses mountain violet (<i>Viola purpurea</i>) as a host plant on the slopes of the Tehachapi Mountains.	Not observed on the project site; project site lacks host plant (violets) and has been subjected to various human uses; typically found at elevations higher than the project site.

Species	Status	Habitat	Discussion of Absence/Rarity On Site
Amphibians			
Tehachapi slender salamander <i>Batrachoseps stebbinsi</i>	CT, FSS, BLM	North facing slopes of moist canyons and ravines, within oak or mixed oak-conifer woodlands with considerable leaf litter, downed logs, and/or rocks. From 2,000 to 5,000 feet.	Not known nor is it expected from the project area (Bloom 2003); closest documented occurrence is approximately 16 miles northwest of the site (CNDDDB). Marginal habitat present on the project site as moist woodlands lack adequate leaf litter, downed logs, and/or rocks.
Arroyo toad <i>Bufo californicus</i>	FE CSC	Inhabits rivers with sandy banks and vegetated with willows, cottonwoods, and sycamores. Also occurs in loose, gravelly areas of streams in drier parts of range. Occurs in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.	The project site does not contain suitable habitat for this species.
Foothill yellow-legged frog <i>Rana boylei</i>	CSC, FSS, BLM	Shallow flowing water in small- to medium-sized streams with medium sized substrate below 6,000 feet.	The project site does not contain suitable habitat for this species.
Mountain yellow-legged frog <i>Rana muscosa</i>	FE CSC, FSS	Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitat types. Currently recognized as occurring in habitats above 5,900 feet but historically known from elevations as low as 1,000 feet.	The project site is located at an elevation below that which the species is currently known to occur. Site surveys did not reveal the presence of this animal.
Reptiles			
Southwestern pond turtle <i>Actinemys marmorata pallida</i>	CSC, FSS, BLM	Low-flow streams and ponds with emergent vegetation, basking sites.	The ponds on the site provide suitable habitat in years of abundant water. The species was not observed during focused searches conducted in 2003 (Bloom 2003).

Species	Status	Habitat	Discussion of Absence/Rarity On Site
Birds			
Sharp-shinned hawk <i>Accipiter striatus</i>	CSC	Nests in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. Nests on north-facing slopes, usually within 275 ft of water.	The project site is outside of the expected nesting range of the species (CDFG 1990). The species could overwinter on the site.
Great egret (rookery) <i>Ardea alba</i>	CDF	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Great egrets are common in the area and may use the ponds on site for foraging. Tree canopies on site are generally dense and not likely to be attractive as rookery sites.
Great blue heron (rookery) <i>Ardea herodias</i>	CDF	Colonial nester in tall trees, Cliffs, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Great blue herons are common in the area and may use the ponds on site for foraging. Tree canopies on site are generally dense and not likely to be attractive as rookery sites.
Burrowing owl <i>Athene cunicularia</i>	BCC, CSC, BLM	Inhabits open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Nests underground in mammal burrows, especially those of California ground squirrel.	Grassland and other open habitats on the site are not expansive enough to support this species nesting or overwintering preferences; no ground squirrel burrows have been observed on the site.
Golden eagle <i>Aquila chrysaetos</i>	CSC, CFP, BCC, CDF, BLM	Open grasslands and scrubland; typically nests on ledges in cliff faces and large outcrops, and tall trees in open areas.	The project site provides marginal nesting and foraging habitat given the lack of large expanses of open grassland and the active use of the site as a retreat center.
Ferruginous hawk (wintering) <i>Buteo regalis</i>	BCC, BLM, CSC, AWL	Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon/juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph cycles.	Open habitats of the type utilized by this species are lacking on the site.
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	FSS, BCC, CT, USBC, AWL, ABC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas and agricultural or ranch fields. Requires adjacent suitable foraging areas such as grasslands or agricultural fields supporting rodent populations.	Open habitats of the type utilized by this species are lacking on the site.
Snowy egret (rookery) <i>Egretta thula</i>	USBC	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	The project site lacks dense beds of tules or other emergent vegetation large enough to support colonies of this species.

Species	Status	Habitat	Discussion of Absence/Rarity On Site
Birds (Continued)			
Merlin <i>Falco columbarius</i>	CSC	Seacoast, tidal estuaries, open woodlands, savannas, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	The project site lacks large open habitats of the type preferred by this species.
Prairie falcon <i>Falco mexicanus</i>	BCC, CSC	Forages in grasslands, savannas, rangeland, agricultural fields, and desert scrub; requires sheltered cliff faces for nesting.	The project site lacks suitable nesting habitat.
California condor <i>Gymnogyps californianus</i>	FE, CE, CDF, CFP, USBC, AWL, ABC	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites.	The project site lacks suitable nesting habitat; marginal foraging habitat present as the site lacks large expanses of open savannah, grasslands, and chaparral.
Bald eagle <i>Haliaeetus leucocephalus</i>	FPD, FT, CE, CFP, CDF	This species is primarily a fish-eating bird most commonly observed foraging and nesting along rivers and lakes in California.	The project site lacks suitable nesting and foraging habitat.
Least bittern (nesting) <i>Ixobrychus exilis</i>	CSC	Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules over water.	The project site lacks dense beds of tules or other emergent vegetation large enough to support nesting colonies of this species.

Species	Status	Habitat	Discussion of Absence/Rarity On Site
Mammals			
Pallid bat <i>Antrozous pallidus</i>	CSC, FSS, BLM, WBWG High	Inhabits deserts, grasslands, shrublands, woodlands, and forests. Most commonly found in open, dry habitats with rocky areas for roosting. Roosts must provide protection from high temperatures. Species is very sensitive to disturbances to roosting sites.	The project site lacks characteristic rocky areas for roosting. Active human use of the site would deter roosting in existing buildings.
Tehachapi pocket mouse <i>Perognathus alticolus inexpectatus</i>	CSC	Inhabits arid annual grassland and desert shrub communities as well as fallow grain fields and patches of Russian thistle. Burrows for cover and nesting. Aestivates and hibernates during extreme weather. Forages on open ground and under shrubs.	There is limited suitable habitat (arid annual grassland) on the site; these areas are in a disturbed condition. Species has not been documented within 9 miles of the site (CNDDDB).
American badger <i>Taxidea taxus</i>	CSC	Most abundant in dry, open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Excavates its own burrows.	No badger dens observed during site surveys (Impact Sciences 2002 through 2004). Limited area of suitable habitat and active use of the site may discourage use by badgers.

KEY:

Federal

FE: Federally Endangered
 FPD: Federally proposed for delisting
 FT: Federally Threatened
 BCC: Bird of Conservation Concern
 BLM: BLM Sensitive:
 FSS: Forest Service Sensitive

State

CE: California Endangered
 CT: California Threatened
 CFP: California Fully Protected
 CDF: California Department of Forestry Sensitive
 CSC: California Special Concern species
 SA: Special Animal

Other

ABC: American Bird Conservancy Green List
 AWL: Audubon Watch List
 R: Considered Rare by Professional Entomologists
 USBC: United States Bird Conservation Watch List
 WBWG: Western Bat Working Group

9.2.2 Special-Status Wildlife Species Observed or Potentially Occurring on the Project Site

The 19 special-status wildlife species included in **Table 4** were either observed on the site, or based on the presence of suitable habitat, could occupy the site as a resident or nesting species. Southwestern willow flycatcher was observed once on site during the course of field surveys. Potential project-related impacts to these species are discussed in heading **11.2**.

Table 4
Special-Status Wildlife Species Potentially Occurring on the Project Site

Species	Status	Habitat	Discussion of Potential Occurrence
Insects			
Bright blue copper <i>Lycaena heteronea clara</i>	R	Most strongly associated with flat-top buckwheat (<i>Eriogonum fasciculatum</i>) and sulphur flower (<i>Eriogonum umbellatum</i>). Males frequently perch on great basin sagebrush (<i>Artemisia tridentata</i>).	No individuals were observed on the project site during the butterfly survey conducted in 2003, but the larval host plant is present (Brueya 2004).
Green blue <i>Icaricia lupini chlorina</i>	R	Utilizes various buckwheat species (<i>Eriogonum</i> sp.), but most strongly associated with flat-top buckwheat (<i>Eriogonum fasciculatum</i>).	No individuals were observed on the project site during the butterfly survey conducted in 2003, but the larval host plant is present (Brueya 2004).
Amphibians			
Yellow-blotched salamander <i>Ensatina eschscholtzii croceator</i>	CSC, FSS, BLM	Forests, well-shaded canyons, oak and conifer woodlands, mature chaparral below 7,300 feet. This species is active in the evening during the rainy season and later in the summer at higher elevations, feeding on small insects and other invertebrates. They retreat underground during the summer (Hansen 2000). They are often associated with the Tehachapi slender salamander, and other, more common species.	This species prefers areas with considerable number of logs and moist areas. A specimen was collected nearby in Kings Canyon, and is stored at Los Angeles County Museum of Natural History. Not observed, but has high potential to occur on site in association with the margins of the ponds, wetlands, and north facing slopes (Bloom 2003).
California red-legged frog <i>Rana aurora draytonii</i>	FT, CSC	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Must have access to aestivation habitat.	The two ponds on the site provide highly suitable habitat. The species was not observed on the site during USFWS protocol-level surveys conducted in 2003 (Bloom 2003). There are no known red-legged frog populations in the project area from which frogs could disperse to the project site (CNDDDB).

Species	Status	Habitat	Discussion of Potential Occurrence
Amphibians (continued)			
Western spadefoot <i>Spea hammondi</i>	CSC, BLM	Occurs primarily in grassland situations, but occasional populations also occur in valley-foothill hardwood woodlands. Seasonal pools are essential for breeding and egg laying.	The sag ponds provide suitable breeding habitat; focused searches for this species have not been conducted.
Reptiles			
Silvery legless lizard <i>Anniella pulchra pulchra</i>	CSC, FSS	Inhabits sandy or loose loamy soils under sparse vegetation; susceptible to drying and must be in or near moist soil.	The project site contains suitable habitat for this species; not observed during site surveys, but the species can be difficult to detect (Bloom 2003).
Rosy boa <i>Charina trivirgata</i>	BLM, FSS	Habitats with a mix of brushy cover and rocky soil such as coastal canyons and hillsides, desert canyons, washes and mountains in desert and chaparral from the coast to the Mojave and Colorado Deserts.	Suitable habitat present and potentially occurs on the project site.
San Bernardino ringneck snake <i>Diadophis punctatus modestus</i>	FSS	Inhabits open, relatively rocky areas, often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous vegetation.	Suitable habitat present and probably occurs on the project site (Bloom 2003).
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	CSC	A low shrub structure of minimum density. Presumed to take refuge and perhaps overwinter in burrows or woodrat nests. Preys on whiptail lizards (<i>Aspidoscelis</i> spp.).	Marginal habitat is available though shrub cover is dense throughout most of the undisturbed areas of the site. Whiptail lizards observed on site.
Two-striped garter snake <i>Thamnophis hammondi</i>	CSC, FSS, BLM	This highly aquatic snake is found in or near permanent fresh water. Often found along streams with rocky beds and riparian growth.	The willow riparian woodland and ponds provide suitable habitat for this species; not observed during site surveys.
Coast horned lizard <i>Phrynosoma coronatum</i>	CSC, FSS, BLM	Forages on the ground in open areas, particularly in dry, sandy washes, sage scrub, and chaparral with rocky or shallow sandy soils to 6,300 feet in elevation, where it feeds on native ants.	Known to occur in the general area, but not observed on the site (Bloom 2003). Could occur in association with on-site scrub oak chaparral.

Species	Status	Habitat	Discussion of Potential Occurrence
Birds			
Cooper's hawk (nesting) <i>Accipiter cooperii</i>	CSC	Inhabits primarily open, interrupted, or marginal woodlands. Nests mainly in riparian groves of deciduous trees in canyon bottoms on river floodplains. Also nests in coast live oak.	The woodlands on the project site provide suitable nesting and foraging habitat; not observed on the site during site surveys.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	BCC, CSC, USBC, AWL, BLM, ABC	Highly colonial species. Requires open water, protected nesting substrate, and foraging areas with insect prey within a few km of the colony. Greatest concentrations are in the Central Valley and vicinity. Largely endemic to California.	The emergent vegetation associated with the pond provides some suitable nesting habitat; not observed on the site during site surveys.
Long-eared owl (nesting) <i>Asio otus</i>	CSC	Inhabits riparian bottomlands grown to tall willows and cottonwoods. Also occurs in belts of live oak paralleling stream courses. Requires adjacent open land with abundant mice. Utilizes old nests of crows, hawks, or magpies for breeding.	The woodlands on the project site provide suitable nesting habitat; not observed on the site during site surveys.
Lawrence's goldfinch (nesting) <i>Carduelis lawrencei</i>	BCC, USBC, AWL, ABC	Typical habitats include valley and foothill hardwood, valley and foothill hardwood-conifer, and, in Southern California, desert riparian, palm oasis, pinyon-juniper, and lower montane habitats. Breeds in open oak or other arid woodland and chaparral, near water.	The project site provides some suitable nesting habitat; not observed on the site during site surveys.
Northern harrier (nesting) <i>Circus cyaneus</i>	CSC	Inhabits coastal salt and freshwater marshes. Nests and forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge. Nests are large mounds of sticks in wet areas.	The wetlands on the site provide suitable nesting habitat; not observed on the site during site surveys.
Vaux's swift (nesting) <i>Chaetura vauxi</i>	CSC	Redwood, Douglas fir and other coniferous forests. Nests in large hollow trees and snags, often in large flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Potential nesting habitat is present in pine trees on site.
Yellow warbler (nesting) <i>Dendroica petechia</i>	CSC	Found in association with dense riparian habitats throughout the lowlands of California. Prefers dense riparian woodlands and scrub habitat for nesting and foraging, though it will use open riparian areas during migration periods.	The willow and willow-oak woodlands provide suitable nesting habitat for this species; not observed during site surveys.

Species	Status	Habitat	Discussion of Potential Occurrence
Birds (continued)			
White-tailed kite (nesting) <i>Elanus leucurus</i>	CFP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. Utilizes open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	The project site provides suitable nesting habitat; not observed during site surveys.
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	CE, FE, FSS, USBC, AWL, ABC	Willows or other shrubby habitat near streams, ponds, or wet meadows.	The willow and willow-oak woodlands provide suitable nesting habitat for this species. Two individuals were observed on the site during USFWS protocol surveys (Impact Sciences 2004). No evidence of nesting was observed and the observed birds are believed to be late migrants. The observed willow flycatchers could not be positively identified as belonging to the southwestern form of willow flycatcher.
California horned lark <i>Eremophila alpestris actia</i>	CSC	Inhabits a variety of open habitats, usually where trees and large shrubs are absent. Found in grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline. Builds grass-lined nests in depressions on the ground in the open.	The grassland areas on the site provide suitable nesting habitat; not observed during site surveys.
Loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	BCC, CSC	This species is a year-round resident of lowlands and foothills with open habitat including scattered shrubs, trees, fence posts, or other perches.	The project site provides suitable nesting habitat; not observed during site surveys.
Black-crowned night heron (rookery) <i>Nycticorax nycticorax</i>	BLM	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Potential roosting and foraging habitat is available in the trees and ponds on site.
California thrasher <i>Toxostoma redivivum</i>	CSC, BCC, USBC, AWL, BLM, ABC	Moderate to dense chaparral habitats and, less commonly, extensive thickets in young or open valley foothill riparian habitat up to 1500 to 2000 m (5000 to 6600 ft). Avoids dense tree canopy. Seldom forages more than a few ft from shrub cover.	The project site provides suitable nesting and foraging habitat; not observed during surveys.
Osprey (nesting) <i>Pandion haliaetus</i>	CSC, CDF	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in treetops within 15 miles of a good fish-producing body of water.	Elizabeth Lake, Lake Hughes, Pyramid Lake, and Quail Lake are within 15 miles of the site, and osprey may nest in trees on site.

Species	Status	Habitat	Discussion of Potential Occurrence
<i>Birds (continued)</i>			
Purple martin (nesting) <i>Progne subis</i>	CSC	Woodlands and low-elevation forest, often of Douglas-fir, ponderosa pine, Monterey pine, and oak. Nests primarily in old woodpecker cavities. Will also nest in manmade structures. Nests are often located in tall, isolated trees or snags.	The project site provides suitable nesting habitat; not observed during site surveys.
California spotted owl <i>Strix occidentalis occidentalis</i>	BCC, CSC, FSS, BLM, USBC, AWL, ABC	Inhabits mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods, and a canopy closure of >40%. Also known to occupy riparian corridors. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	This species has been documented nesting within 1 mile of the project site and the site could be within the home range of a nesting pair. ¹ The project site provides suitable nesting and foraging habitat.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE, CE, USBC, AWL, BCC, ABC	Inhabits low riparian areas in the vicinity of water or in dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and mesquite.	The willow and willow-oak woodlands provide suitable nesting habitat for this species. Not observed on the site during USFWS protocol-level surveys (Impact Sciences 2004). Suitable nesting habitat is present.

KEY:

Federal

FE: Federally Endangered

FPD: Federally proposed for delisting

FT: Federally Threatened

BCC: Bird of Conservation Concern

BLM: BLM Sensitive:

FSS: Forest Service Sensitive

State

CE: California Endangered

CFP: California Fully Protected

CDF: California Department of Forestry Sensitive

CSC: California Special Concern species

Other

ABC: American Bird Conservancy Green List

AWL: Audubon Watch List

R: Considered rare by professional entomologists

USBC: United States Bird Conservation Watch List

WBWG: Western Bat Working Group

¹ Ramirez, Ruben. March 7, 2005. Personal Communication.

9.3 JURISDICTIONAL WETLANDS

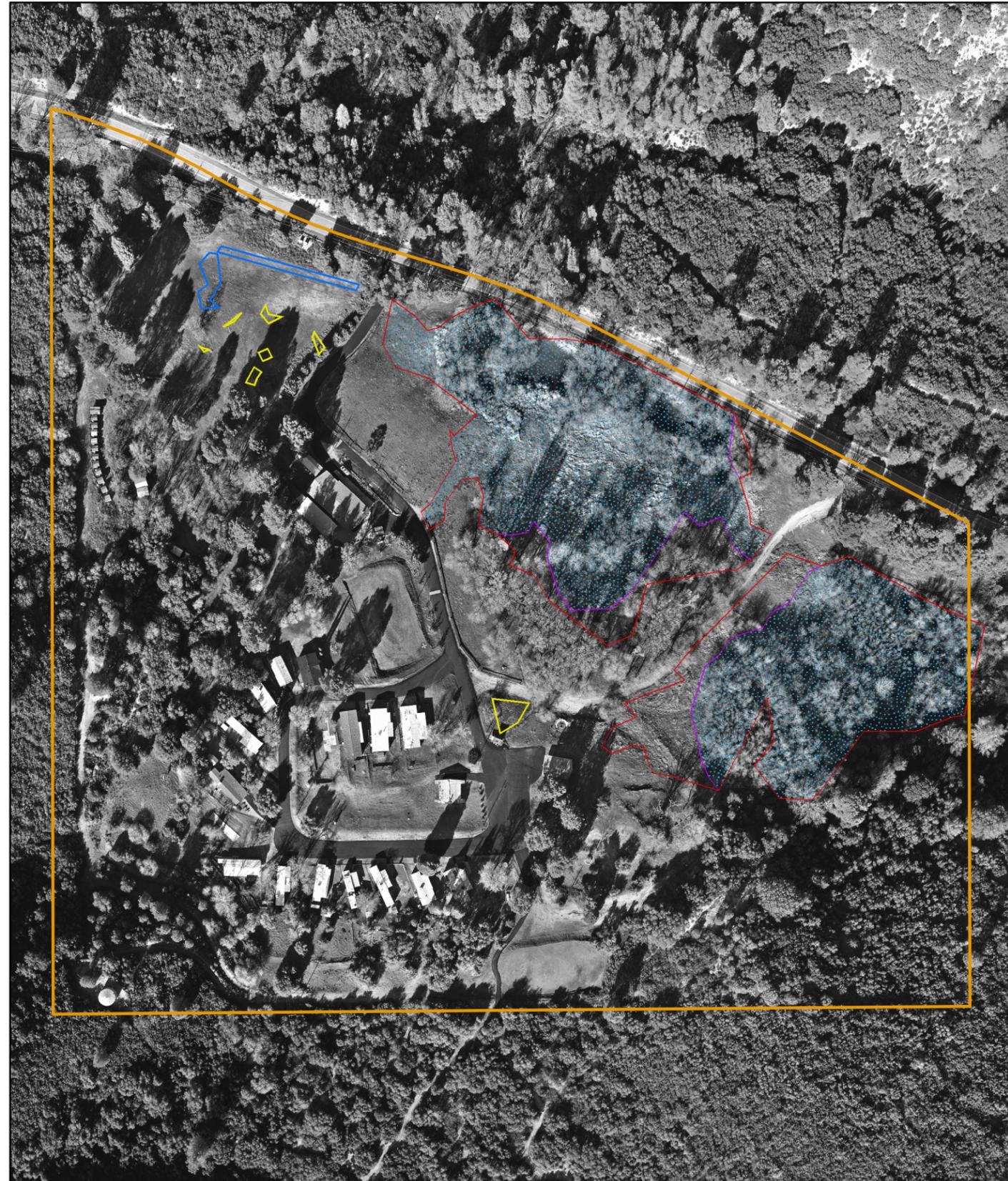
Wetlands, permanent and intermittent drainages, creeks, and streams are subject to the jurisdiction of the ACOE under Section 404 of the Federal Clean Water Act. By ACOE definition, all aquatic or riverine habitats between the "ordinary high water mark" of rivers, creeks, and streams, are considered "waters of the United States" and may fall under ACOE jurisdiction. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by ACOE as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." (ACOE 1987) The presence and extent

of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The ACOE definition of wetlands requires that all three wetland identification parameters be met.

Streambeds are subject to regulation by the CDFG under Sections 1601–1603 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFG jurisdiction typically extends to the edge of the riparian vegetation canopy.

The delineation of waters and wetlands for the Young Nak site was conducted to account for both the ACOE protocol for wetlands under the Corps of Engineers Wetland Delineation Manual (1987) and in accordance with guidance from the CDFG. The riparian vegetation corridor along the drainage was mapped with jurisdictional areas calculated.

The drainage from the site changes direction off site to flow to the north, eventually entering the King's Canyon drainage. The Kings Canyon drainage is shown to be impounded in a small ranch pond; however, no navigability, fish, or shellfish harvesting, or industrial uses are present within this drainage. This drainage turns northeast and eventually ends in a large sandy alluvial plain in Section 32 and 33, Township 8 North, Range 15 West, which is in the southwest portion of Antelope Valley. The California Aqueduct is within 0.5 mile of the alluvial plain; however, no water from King's Canyon has the potential to enter the concrete-lined aqueduct. **Figure 10** shows the areas on the site expected to fall under the jurisdiction of these agencies. A total of 5.12 acres have been delineated as being under the jurisdiction of the ACOE, CDFG, and RWQCB, including the sag ponds, the willow riparian woodland, and adjacent rush-sedge wetland, portions of the willow-oak woodlands, and two rush-sedge wetlands in the northwest portion of the site. There is an additional 0.96 acre of adjacent areas of riparian, but not hydrophytic, vegetation that are under the jurisdiction of CDFG, but not the ACOE or RWQCB. There are also several small areas of isolated rush-sedge wetlands in the northwest portion of the site under RWQCB jurisdiction (0.11 acre), which should not be considered adjacent to the riparian corridor because they are not dependent on the riparian corridor for water and do not supply water to the corridor. The results of the wetland delineation are subject to verification by the ACOE.



Legend:

-  Boundary
-  ACOE
-  ACOE/CDFG
-  RWQCB
-  CDFG

 **NOT TO SCALE**

SOURCE: AirPhoto USA – 2003, Impact Sciences, Inc. – January 2005

FIGURE 10

Jurisdictional Delineation

10.0 OVERALL BIOLOGICAL VALUE OF PROPERTY

The project site is positioned near three converging geographic regions, including the Mojave Desert, the Tehachapi Mountains, and the greater San Gabriel foothills. The convergence of these three regions has produced a diverse and unique flora in the project area. The intergradation of willow riparian woodland, oak woodlands, pine forests, and scrub oak chaparral that occurs on the project site is representative of the diversity of the area.

The project site is currently partially developed and is actively used as a church retreat center. While the existing development detracts from the overall biological value of the site, portions of the site are in a relatively undisturbed condition and provide valuable wildlife habitat and potential wildlife movement routes to the Angeles National Forest. The woodlands on the site provide nesting habitat for numerous bird species, including special-status species. The willow and willow-oak woodlands on the site are considered to be sensitive plant communities by the CDFG and potentially provide suitable nesting habitat for the federally-listed southwestern willow flycatcher and least Bell's vireo.

The two ponds and the willow riparian habitat along the northern project boundary are considered of particularly high biological value. These areas are within the San Andreas rift zone, which is considered to be a major habitat connection. The ponds and associated riparian habitat provide a water source and vegetative cover for wildlife moving along this wildlife movement corridor. The ponds also provide habitat for amphibians and a water source for locally occurring wildlife, including animals from within the Angeles National Forest.

11.0 IMPACT ASSESSMENT AND MITIGATION MEASURES

11.1 SIGNIFICANCE THRESHOLD CRITERIA

Significant impacts of proposed development on the project site were determined from criteria included in the *State CEQA Guidelines*. As stated in Appendix G (Environmental Checklist) of the *State CEQA Guidelines* (as revised January 1, 1999), a project could have a significant impact on the environment if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Section 15065(a) of the *State CEQA Guidelines* also states that a project may have a significant effect on the environment when the project has the potential to:

- substantially degrade the quality of the environment;
- substantially reduce the habitat of a fish or wildlife species;
- cause a fish or wildlife population to drop below self-sustaining levels;
- threaten to eliminate a plant or animal community; or
- reduce the number or restrict the range of an Endangered, Rare, or Threatened species.

11.1.1 Impact Assessment Approach and Methodology

Significance thresholds for biological resources, as defined in Appendix G of the *State CEQA Guidelines* and as stated above, are issue oriented. The focus of these thresholds is directed to a project's impact on defined special-status species, sensitive natural communities or habitats, wetlands, wildlife movement corridors, and conflicts with local policies or ordinances or local, regional, or state conservation plans. For the purposes of this EIR, it is assumed that significance thresholds defined as part of Section 15065 of the *State CEQA Guidelines*, also stated above, focus on the broader perspective of a project's impact on fish and wildlife populations and overall habitat.

Direct impacts typically represent the physical alteration (habitat degradation or loss) of biological conditions that occur on site as a result of project implementation. Indirect impacts are those reasonably foreseeable effects on remaining or adjacent biological resources that are caused by the project subsequent to project implementation. However, the physical alteration of habitat is not in itself a significant impact under CEQA. Significance is measured when the physical alteration of habitat is compared against each of the significance threshold criteria defined above. For example, should the alteration of habitat result in the direct or indirect loss or in an otherwise substantial adverse effect on a species identified as a "candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or USFWS", impacts would be considered significant assuming appropriate compensatory or other mitigation is not available or feasible.

An evaluation of whether an impact on biological resources would be substantial, and, therefore, a significant impact, must consider both the resource itself and the significance threshold criteria being evaluated. For example, because of the dependence of most plant and animal species on native habitats to satisfy various life-cycle requirements, a habitat-based approach that addresses the overall biological value of a particular vegetation community or habitat area is appropriate when determining whether or not alteration of that habitat will substantially affect special-status species, sensitive habitats, wetlands, or movement corridors. The relative biological value of a particular habitat area—its functions and values—can be determined by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment, and the presence or absence of special-status resources.

However, direct impacts with respect to specific plant and wildlife resources (active nests and individual plants and animals) are also evaluated and discussed when impacts on these resources, in and of themselves, could be considered significant or conflict with local, state, and federal statutes or regulations. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially

affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered of special status by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions.

11.1.2 Biological Issues Not Further Discussed

The proposed project is not subject to a Habitat Conservation Plan (HCP) and would therefore not conflict with such a plan. Therefore, no further discussion is necessary.

11.2 DIRECT IMPACTS AND PROPOSED MITIGATION MEASURES

The following section focuses on the effects of implementation of the proposed project on plant communities, common and special-status plant and wildlife species, special-status habitats, and wildlife movement corridors. **Figure 11** depicts the relationship between the on-site plant communities and the proposed grading limits, and **Table 5** presents a summary of these impacts. Please refer to **Figure 2** for the location of the proposed paved roads. The estimated acreage of each plant community that would be converted to a developed condition was calculated using Geographical Information Systems.

Table 5
Summary of Direct and Indirect Impacts on Vegetation through Construction and Fuel Modification

Plant Community	Grading Impact (acres)	Fuel-Mod Impact (acres)	Total Acres on Site	Grading Impact (%)	Fuel-Mod Impact (%)
Scrub Oak Chaparral	0.02	2.18	4.7	0.4	46.4
Pine Forest	0.0	0.00	0.8	0.0	0.0
Willow Riparian Woodland	0.0	0.00	1.5	0.0	0.0
Mixed Grassland	1.6	1.24	4.0	40.0	31.0
Pine/Oak Woodland	0.4	3.75	4.6	8.7	81.5
Willow/Oak Woodland	0.0	1.15	3.9	0.0	29.5
Rush-Sedge Wetland	0.05	0.31	1.5	3.3	20.7
Disturbed Woodland/Grassland	1.5	7.57	9.4	16.0	80.5
TOTAL	3.57	16.2	30.4	11.7	53.3

11.2.1 Bio-1: Willow Riparian Woodland, Willow-Oak Woodland, or Pine Forest

11.2.1.1 Impacts

As shown in **Figure 11**, the proposed project does not involve the removal of any willow riparian woodland, willow-oak woodland, or pine forest. Therefore, no direct impacts to these plant communities would occur.

11.2.1.2 Mitigation Measures

No mitigation is required.

11.2.2 Bio-2: Pine-Oak Woodland

The proposed project would result in the removal of 0.4 acre of the 4.6 acres of pine-oak woodland on the project site. The trees to be removed would be from the outer margins of the woodland and the remaining on-site pine-oak woodland would remain intact. Given the limited area of pine-oak woodland that would be removed, and that the functional value of this woodland would not substantially decrease, impacts would be less than significant. No oak trees are proposed for removal within this vegetation type.

11.2.2.1 Mitigation Measures

No mitigation is required.

11.2.3 Bio-3: Scrub Oak Chaparral

The proposed project would result in the removal of 0.02 acre of the 4.7 acres of scrub oak chaparral on the project site. The area to be affected is along the outer margins of the scrub oak chaparral in the southeast portion of the site. The surrounding scrub oak chaparral would remain intact. Given the limited area of scrub oak chaparral that would be removed, and that the surrounding scrub oak chaparral would remain intact, impacts would be less than significant. No oak trees are proposed for removal within this vegetation type.

11.2.3.1 Mitigation Measures

No mitigation is required.



SOURCE: Air Photo USA - 2003, Hovell & Pilarski Engineering, Inc. - February 2006, Impact Sciences, Inc. - October 2007

FIGURE 11

Preliminary Grading / Disturbance Limits and Impacted Plant Communities

11.2.4 Bio-4: Mixed Grassland

The proposed project would result in the removal of 1.6 acres of the 4.1 acres of mixed grassland on the project site. The grassland to be removed is composed of a mixture of native and non-native grasses and herbaceous species. Given the small and scattered area of mixed grassland to be removed, that portions of the grassland are heavily invaded by slender pod mustard and filaree, and that mixed grassland is not considered a sensitive natural community by resource agencies, the loss of mixed grassland would be a less than significant impact. One oak tree within this community will be removed. This loss is subject to CLATO and is addressed in **Bio-10**.

11.2.4.1 Mitigation Measures

No mitigation is required.

11.2.5 Bio-5: Rush-Sedge Wetland

Please see **Bio-13, Jurisdictional Resources**, for a discussion of impacts to this plant community.

11.2.6 Bio-6: Disturbed Woodland/Grassland

The proposed project would result in the development of 1.47 acres of the 9.40 acres of disturbed woodland/grassland communities on the site. The areas to be developed are in a disturbed condition and have been graded and/or are located adjacent to existing development. Given the disturbed condition of the areas within this community to be developed, the loss of disturbed woodland/grassland communities would be a less than significant impact. Twelve oak trees are proposed for removal within this community, four of which are already dead. The loss of the 8 individual living trees within this community is subject to CLATO and is addressed in **Bio-11**.

11.2.6.1 Mitigation Measures

No mitigation is required.

11.2.7 Bio-7: Oak Woodlands

11.2.7.1 Impact

The proposed project would result in the removal of 12 oak trees, 4 of which are dead, scattered through 2.07 acres of mixed grassland and disturbed woodland/grassland habitats. The understory of these oak trees is not in a natural condition, but the oak trees themselves provide structural components suitable for providing nesting, foraging, and food resources for a number of bird and invertebrate species. Removal

of oak woodland habitats is subject to the provisions of the California Oak Woodlands Conservation Law and may be a significant impact under CEQA.

11.2.7.2 Mitigation Measure

The required replacement of these 8 trees with 24 trees of the same species into undeveloped areas of the site (see **Mitigation Measure Bio-11**) will satisfy the requirement for replacement of individual trees as per CLATO and provide for creation and expansion of oak woodland habitat on site in compliance with SB 1334. Areas available for planting of replacement trees include 2.5 acres of mixed grassland and 7.9 acres of disturbed woodland/grassland communities on site. These vegetation types are not considered sensitive by CDFG and occur adjacent to other vegetation types supporting oak trees. Planting of replacement oaks will focus on establishing and expanding oak woodland habitats along these points of contact between the grassland and disturbed communities with the more intact pine/oak and willow oak communities on site.

11.2.8 Bio-8: Common Wildlife

11.2.8.1 Impact

Construction and grading activities associated with the proposed project would directly disturb common wildlife species on the project site. In particular, species of low mobility (particularly small mammals and reptiles) would be eliminated during site preparation and construction. During the construction period, some wildlife species may emigrate from the project site and become vulnerable to mortality by predation, auto collisions, and unsuccessful competition for food and territory.

Due to the disturbed condition of most of the proposed building sites, and the location of the proposed structures adjacent to or near existing buildings, overall wildlife species diversity is expected to be relatively low. Most of the species present are expected to be those that are tolerant of, and adapted to, disturbed conditions. Because of the common nature and relatively small number of individual animals that would be displaced or eliminated as a direct result of construction activities, it is not expected that construction-related activities would cause a regional population of any common animal species to drop below self-sustaining levels. Therefore, impacts to common wildlife species from construction-related activities would be less than significant.

The trees occurring within and adjacent to the proposed building sites, and the grasslands on the site, provide suitable nesting habitat for common bird species. The Migratory Bird Treaty Act and the California Fish and Game Code protect active nests of all native bird species. Therefore, any construction-related loss of active bird nests would conflict with these federal and state laws.

11.2.8.2 Mitigation Measures

See **Mitigation Measure Bio-12b**; implementation of this measure would ensure compliance with state and federal laws protecting active bird nests.

11.2.9 Bio-9: Wildlife Movement

11.2.9.1 Impacts

The proposed facilities would be constructed adjacent to or near existing buildings, or within grassland areas largely surrounded by existing development. Easily traversed open habitats adjacent to the ponds in the northern portion of the project site will remain in their present condition. The ponds and riparian corridor will likewise be unaffected by construction, as will the majority of undisturbed habitats at the periphery of the development envelope. In no instance will current opportunities for movement be severed from connections to natural areas or similar habitats on or off site. Given the above, direct impacts associated with project construction are not expected to interfere substantially with the movement of any wildlife species or with an established wildlife corridor. Therefore, direct impacts to wildlife movement corridors would be less than significant. See **Bio-15** and **Bio-18a** through **Bio-18c** for a discussion of indirect impacts to wildlife movement corridors resulting from increased light and glare and increased human presence.

11.2.9.2 Mitigation Measures

No mitigation is required.

11.2.10 Bio-10: Special-Status Plant Species

11.2.10.1 Impacts

One special-status plant species was observed on the site during surveys conducted on April 17 and May 22, 2003, July 13, 2003, and October 18, 2007. This is Greata's aster, which occurs in the willow/oak community in the northern portion of the project site. Three small groupings of this plant were discovered associated with willow/oak woodland in the northeast portion of the property. This population is outside of any anticipated impact areas (see **Figure 3**); however, it is possible that undiscovered individuals of this species may be affected by fuel modification implementation within 200 feet of structures. Because of the small numbers of individuals of this species known to occur on site and the evident rarity of the species within the region (Boyd, 1999), unmitigated impacts to this population may be significant under CEQA.

11.2.10.2 Mitigation Measures

Bio-10 Prior to the issuance of a grading permit, the site shall be surveyed and all occurrences of Greata's aster shall be recorded with a GPS unit. This information will be depicted on the grading plan. Prior to grading, occurrences of Greata's aster shall be protected with construction fencing to ensure that equipment and workers do not enter or disturb occupied areas.

11.2.11 Bio-11: Protected Oaks

11.2.11.1 Impacts

As previously discussed (see heading **9.1.1 Oaks**), CLATO Section 22.56.2050 through 22.56.2260 protects oaks that are at least 8 inches in diameter as measured 4.5 feet above natural ground, or if multi-trunked, any oak with a combined diameter of the two largest trunks of 12 inches measured 4.5 feet above natural ground. A heritage oak, as defined by CLATO, is any oak measuring 36 inches or more in diameter as measured 4.5 feet above natural ground, or any oak having a significant historical or cultural importance to the community, regardless of trunk diameter. CLATO requires that all potential impacts to oak trees be preceded by an application to the County that includes a detailed oak tree report, and that required mitigation for impacts to oak trees be implemented.

Based on the proposed grading plan, of the 271 oaks on the site under the jurisdiction of CLATO, 8 are proposed for removal and 10 are proposed to be encroached upon during construction. One of the trees to be removed is a heritage oak. The proposed removal of these oak trees would "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance." Therefore, this loss is considered a significant impact.

11.2.11.2 Mitigation Measures

Bio-11 The applicant shall comply with all conditions stipulated in the Oak Tree Permit issued in association with the County Conditional Use Permit. Minimum mitigation requirements for oak tree removals are a 2:1 replacement ratio for ordinance-sized oaks between 8 inches (or 12 inches combined for two trunks) and 36 inches in diameter, and a 10:1 replacement ratio for heritage oaks. Thus, the minimum mitigation requirement for oak tree removals will be the planting of 24 trees (16 valley oak, 8 interior live oak). These trees shall be planted on site in areas to remain undeveloped and which show a reasonable potential to support oak trees in the long term and thereby facilitate the expansion of functional oak habitats on site.

11.2.12 Bio-12: Special-Status Wildlife Species

Southwestern willow flycatcher was observed on the site. This species was not observed nesting on the site during protocol surveys and it is expected that the two individuals observed were late migrants. Although not observed on the site, based on the presence of suitable habitat, the following additional special-status species may potentially occur on the site: bright blue copper, green blue, yellow-blotched salamander, California red-legged frog, western spadefoot, silvery legless lizard, San Bernardino ringneck snake, two-striped garter snake, coast horned lizard, Cooper's hawk, tricolored blackbird, long-eared owl, Lawrence's goldfinch, northern harrier, yellow warbler, white-tailed kite, southwestern willow flycatcher, California horned lark, loggerhead shrike, California thrasher, purple martin, California spotted owl, and least Bell's vireo. Potential project-related impacts to these species are discussed below. Special status designations are abbreviated in the following paragraphs thusly:

Federal

FE: Federally Endangered
 FPD: Federally proposed for delisting
 FT: Federally Threatened
 BCC: Bird of Conservation Concern
 BLM: BLM Sensitive:
 FSS: Forest Service Sensitive

State

CE: California Endangered
 CFP: California Fully Protected
 CDF: California Department of Forestry Sensitive
 CSC: California Special Concern species

Other

ABC: American Bird Conservancy Green List
 AWL: Audubon Watch List
 R: Considered rare by professional entomologists
 USBC: United States Bird Conservation Watch List
 WBWG: Western Bat Working Group

Bright blue copper (*Lycaena heteronea clara*), **R**

Green blue (*Icaricia lupini chlorina*), **R**

Although these butterfly species were not observed on the project site during the butterfly survey conducted in 2003, there is a low potential for these species to occur based on known ranges and the presence of potential larval host plants (flat-top and sulphur buckwheat) (Bruyee 2004). Given the low potential of occurrence, that the project site does not support a large number of potential host plants, and that the site is subject to ongoing human uses, these species would not be expected to occur in large

numbers, if at all, on the site. Therefore, the proposed removal of a small number of larval host plants potentially used by these species would not be expected to have a substantial adverse effect on either of these butterfly species; consequently, impacts to these species would be less than significant.

Yellow-blotched salamander (*Ensatina eschscholtzii croceator*), *CSC, FSS, BLM*

This species was not observed on the site during amphibian surveys conducted in 2003 (Bloom 2003). This species has a high potential to occur on the site in association with the ponds, wetlands, and moist north-facing slopes. The proposed project has been designed to avoid wetland and riparian habitats and would result in the development of 0.05 acre of the total 5.23 acres of suitable habitat for this species on the site (see **Figure 11**). The wetland areas to be impacted are small and are interspersed within grasslands. Relative to the pond, larger wetlands, and riparian woodland habitats on the site, the wetland areas to be developed provide low-value habitat for this species and would not be expected to support a large number of, if any, yellow-blotched salamander. Therefore, the proposed project would not be expected to have a substantial adverse effect on yellow-blotched salamander; consequently, impacts to this species would be less than significant.

California red-legged frog (*Rana aurora draytonii*), *FT, CSC*

This species was not observed on the site during amphibian surveys conducted in 2003 (Bloom 2003). Highly suitable habitat exists for this species on site, but there are no known populations in the project areas from which frogs could disperse. It thus has a low potential to occur on site. Habitat suitable for this species is not proposed for development and direct impacts to this species are not anticipated.

Western spadefoot (*Spea hammondi*), *CSC, BLM*

The two ponds on the project site provide suitable breeding habitat for this species and, if present, this species could aestivate in surrounding areas. The proposed project does not include direct impacts to the ponds or construction activities within 200 feet of the ponds. Therefore, the proposed project would not result in any direct impacts to western spadefoot.

Silvery legless lizard (*Anniella pulchra pulchra*), *CSC, FSS*

This species generally inhabits sandy or loose loamy soils under sparse vegetation, but also occupies herbaceous layers within woodland habitats. Although this species was not observed during the 2003 reptile survey, it can be difficult to detect and could occur on the site (Bloom 2003). The disturbed woodland/grassland portions of the site have compacted soils and provide marginal habitat for the species. However, construction-related activities would occur within areas (pine-oak woodland, mixed

grassland, scrub oak chaparral) that provide suitable habitat for this species and that could support numerous individuals. Depending on the number and extent of this species on the site that may be disturbed or removed, the loss of silvery legless lizard would be a significant impact.

Rosy boa (*Charina trivirgata*), *BLM, FSS*

San Bernardino ringneck snake (*Diadophis punctatus modestus*), *FSS*

Coast horned lizard (*Phrynosoma coronatum*), *CSC, FSS, BLM*

Coast patch-nosed snake (*Salvadora hexalepis virgulata*), *CSC*

These species were not observed during the amphibian/reptile surveys, but they could occur in association with the on-site scrub oak chaparral. The proposed project would result in the loss of 0.02 acre of the 4.7 acres of scrub oak chaparral on the site. The area to be affected is located along the outer margins of the on-site scrub oak chaparral and has previously been disturbed by an unpaved pathway. This area is not expected to support a large number of these reptile species, but if unmitigated impacts were to occur they may constitute a violation of CEQA and may be considered significant.

Two-striped garter snake (*Thamnophis hammondi*), *CSC, FSS, BLM*

This species is highly aquatic and is most commonly found in or near permanent water (Stebbins 1985). Although this species was not observed during the amphibian/reptile surveys, it could occur in the ponds and associated willow riparian woodland (Bloom 2003). No construction-related activities would occur within any areas containing suitable habitat for this species. Therefore, the proposed project would not result in any direct impacts to two-striped garter snake.

Southwestern willow flycatcher (*Empidonax traillii extimus*), *CE, FE, FSS, USBC, AWL, ABC*

Least Bell's vireo (*Vireo bellii pusillus*), *FE, CE, USBC, AWL, BCC, ABC*

Although these species were not observed nesting on the site during protocol surveys conducted in 2004 (Impact Sciences 2004), suitable nesting habitat is present. The proposed project does not involve the removal of any suitable nesting habitat. However, should these species nest on the site prior to the commencement of construction, construction-related noise could result in the abandonment of an active southwestern willow flycatcher or least Bell's vireo nest. Given the rarity of these species, the construction-related abandonment of an active nest would be a significant impact. Additionally, the construction-related abandonment of an active nest would be a "take" subject to Section 9 of the Federal

Endangered Species Act and would require a permit pursuant to Section 10(a)(1)(B) or Section 7 of the Endangered Species Act.

Cooper's hawk (*Accipiter cooperi*), **CSC**

Tricolored blackbird (*Agelaius tricolor*), **BCC, CSC, USBC, AWL, BLM, ABC**

Long-eared owl (*Asio otus*), **CSC**

Lawrence's goldfinch (*Carduelis lawrencei*), **BCC, USBC, AWL, ABC**

Northern harrier (*Circus cyaneus*), **CSC**

Vaux's swift (*Chaetura vauxi*), **CSC**

Yellow warbler (*Dendroica petechia*), **CSC**

White-tailed kite (*Elanus leucurus*), **CFP**

California horned lark (*Eremophila alpestris actia*), **CSC**

Loggerhead shrike (*Lanius ludovicianus*), **BCC, CSC**

Black-crowned night heron (*Nycticorax nycticorax*), **BLM**

California thrasher (*Toxostoma redivivum*), **CSC, BCC, USBC, AWL, BLM, ABC**

Osprey (*Pandion haliaetus*), **CSC, CDF**

Purple martin (*Progne subis*), **CSC**

California spotted owl (*Strix occidentalis occidentalis*), **BCC, CSC, FSS, BLM, USBC, AWL, ABC**

Although no nests of these species have been observed on the site, based on the presence of suitable habitat, and known occurrences in the project area, these special-status bird species could nest on the site. Depending on the number and extent of bird nests of these species on the site that may be disturbed or removed, the loss of the nests would be a potentially significant impact.

11.2.12.1 Mitigation Measures

Bio-12a A pre-construction/grading survey of all areas proposed for grading/construction activities containing suitable habitat for silvery legless lizard, rosy boa, San Bernardino

ringneck snake, coast patch-nosed snake, and coast horned lizard shall be conducted by a qualified biologist. Any silvery legless lizard, rosy boa, San Bernardino ringneck snake, coast patch-nosed snake, and coast horned lizard observed within the grading/construction zone shall be relocated by the biologist (in possession of a valid California Scientific Collecting Permit) to a suitable area outside of the construction zone.

Bio-12b

Active nests of native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503). If activities associated with construction or grading are planned during the bird nesting/breeding season, generally January through March for early nesting birds (Coopers hawks or hummingbirds) and from mid March through September for most bird species, the applicant shall have a qualified biologist conduct surveys for active nests. To determine the presence/absence of active nests, pre-construction nesting bird surveys shall be conducted weekly beginning 30 days prior to initiation of ground-disturbing activities, with the last survey conducted no more than three days prior to the start of clearance/construction work. If ground-disturbing activities are delayed, additional pre-construction surveys shall be conducted so that no more than three days have elapsed between the survey and ground-disturbing activities.

Surveys shall include examination of trees, shrubs, and the ground for nesting birds. Several bird species such as killdeer and night hawks are known to nest on bare ground. Protected bird nests that are found within or adjacent to the construction zone shall be protected by a buffer deemed suitable by a qualified biologist, and verified by the California Department of Fish and Game. Typically, a 300-foot buffer is required for most species and a 500-foot buffer for raptor species. Buffer areas shall be delineated with orange construction fencing or other exclusionary material that would inhibit access to the buffer zone. Installation of the exclusionary material delineating the buffer zone shall be verified by a qualified biologist prior to initiation of construction activities. The buffer zone shall remain intact and maintained while the nest is active (i.e., occupied or being constructed by the adults bird(s)) and until young birds have fledged and no continued use of the nest is observed, as determined by a qualified biologist.

Implementation of **Mitigation Measure Bio-12a** would reduce impacts to silvery legless lizard to a less than significant level. Implementation of **Mitigation Measure Bio-12b** would reduce impacts to nesting special-status birds to a less than significant level and would also serve to ensure compliance with federal and state laws protecting the nests of all native bird species.

11.2.13 Bio-13: Sensitive Plant Communities

11.2.13.1 Impact

As discussed in heading 9.3, of the plant communities found on the project site, willow riparian woodland and willow-oak woodland are considered sensitive by the CDFG. The proposed project does not include the removal of any willow riparian or willow-oak woodland. Therefore, no impacts to sensitive plant communities would occur.

11.2.13.2 Mitigation Measures

No mitigation is required.

11.2.14 Bio-14: Jurisdictional Resources

Constructing the proposed project would fill approximately 0.05 acre of the 1.5 acres of rush-sedge wetlands on the project site. The seven small wetland areas to be filled are scattered throughout the mixed grassland in the northwest portion of the site. As shown in **Figure 10**, two of these wetlands (totaling 0.03 acre) are expected to fall under the jurisdiction of ACOE, CDFG, and RWQCB. The remaining five wetlands (totaling 0.02 acre) to be filled are expected to fall only under the jurisdiction of the RWCQB, as they are “isolated.” All of the remaining jurisdictional resources on the site, including the remaining 1.45 acres of rush-sedge wetland, the sag ponds, the willow riparian woodland, and willow-oak woodlands, would not be directly affected by the project. Given the small area of wetlands to be filled, and the limited habitat value provided by these small and scattered features, the proposed project would not have a substantial adverse effect on a federally protected wetland. Therefore, based on the CEQA significance thresholds, impacts to jurisdictional resources would be less than significant.

However, prior to any fill or alterations to the wetlands on the project site, the project applicant would be required to consult with ACOE, CDFG, and RWQCB and apply for appropriate permits/agreements to fill the wetlands. The applicant would also be required to comply with all specified mitigation measures in the permits/agreements.

11.2.14.1 Mitigation Measures

No mitigation is required.

11.3 INDIRECT IMPACTS

Indirect impacts on biological resources often occur to those habitat areas remaining on, or surrounding a project site after the completion of the proposed project. Indirect impacts associated with the proposed project are not quantifiable but are reasonably foreseeable. Therefore, the discussion that follows provides a common-sense identification of the types of secondary impacts and their relative magnitude so that decision makers and the general public are aware of the indirect impact potential associated with implementation of the proposed project. This type of analysis is consistent with the requirements of CEQA. Specifically, the following types of indirect impacts to biological resources could occur:

- Increased light and glare;
- Landscaping irrigation and stormwater runoff;
- Increased human and domestic animal presence;
- Increased populations of non-native plant and animal species; and
- Construction and grading activities.

11.3.1 Bio-15: Increased Light and Glare

11.3.1.1 Impact

The development of the proposed project would increase the number of nighttime light and glare sources on the site over current levels. While some lighting already exists on the site, the project would introduce new and/or additional light sources to portions of the site that currently have a low level of lighting, including the northwestern and southern portions of the site. Nighttime light can diminish the value of wildlife habitat by disturbing resting, foraging, breeding, and movement behavior of wildlife species. If uncontrolled, such light where near to the woodland and chaparral habitats on and adjacent to the site (including the Angeles National Forest and the San Andreas rift zone), could adversely impact the composition and behavior of the animal species that occur in these areas. Because of the potential disruption to resting, foraging, breeding, and movement behavior of wildlife species on and adjacent to the project site, increased nighttime lighting, and glare associated with the proposed project is a significant impact.

11.3.1.2 Mitigation Measures

Bio-15 The applicant shall develop a lighting plan in coordination with a qualified biologist. The lighting plan shall require that all lighting be directed and shielded so that light is

not directed into remaining woodland and chaparral habitats on and adjacent to the site. Mercury vapor and halide lighting shall not be used on the perimeter of developed areas and adjacent to undeveloped space. The lighting plan shall be subject to approval by the County of Los Angeles.

A lighting plan has been prepared for the site and is included in this report as **Appendix E**. Implementation of **Mitigation Measure Bio-15** would reduce potential impacts resulting from increased light and glare to a less than significant level.

11.3.2 Bio-16: Landscaping Irrigation and Stormwater Runoff

11.3.2.1 Impacts

Over-irrigation of landscaped areas, especially when combined with the use of chemicals, could lead to runoff that contains pesticides, herbicides, nitrates, and other contaminants. Any runoff that flows into the sag ponds that contains high levels of nutrients, particularly fertilizers and waste products such as nitrogen and phosphorous, could result in eutrophication (excessive nutrient buildup). This in turn could result in depletion of available oxygen due to increased biological oxygen demand (BOD) and reduce available dissolved oxygen for aquatic organisms. Other chemicals, pesticides, and herbicides could also adversely affect the ponds.

Paved surfaces would also contribute runoff into the sag ponds during storm events. Depending on the magnitude and frequency of storm events and the overall level of the water quality, this runoff could also cause increased eutrophication, depleted oxygen levels, long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with the ponds.

Given the above, impacts related to stormwater and irrigation runoff could substantially diminish habitat for wildlife or plants associated with the sag ponds and substantially degrade the quality of the environment. Therefore, indirect impacts resulting from landscaping irrigation and stormwater runoff are significant.

11.3.2.2 Mitigation Measures

Bio-16 Prior to the issuance of a grading permit, the applicant shall prepare and submit to the County a Storm Water Pollution Prevention Plan. The plan shall demonstrate that water quality in the sag ponds will be maintained at or above its current level and shall be subject to approval by the County. The plan shall incorporate the use of permeable pavers, bioswales, and/or other methods of attenuating flows and maximizing on-site

retention of stormwater from areas of frequent use and potentially high levels of nutrients and pollutants, such as driveways and parking areas.

Implementation of the **Mitigation Measure Bio-16** would reduce potential impacts resulting from landscaping irrigation and stormwater runoff to a less than significant level.

11.3.3 **Bio-17: Increase in Populations of Non-Native Plant and Animal Species**

11.3.3.1 **Impact**

The proposed plant palette includes several invasive plant species such as Bermuda grass and goldenrain tree (*Koelreuteria paniculata*). Although the project site is partially developed and already contains a large number of non-native and/or invasive plant species, the proposed project could introduce additional invasive plants to the site. Invasive plants could disperse into the less disturbed plant communities on and adjacent to the site (willow riparian woodland, willow-oak woodland, and scrub oak chaparral) and displace native plant species. Additionally, non-native plants are likely to require irrigation which encourages the establishment of non-native animal species, including Argentine ants which can affect the food base of many of the sensitive wildlife species expected to use the site. In the absence of mitigation measures to address these potentialities, the impact on native biological resources as a result of increased non-native plant and animal species is considered significant.

11.3.3.2 **Mitigation Measure**

Bio-17 Prior to the issuance of a grading permit, the applicant shall prepare a landscaping plan. This plan will be subject to approval by the County and will include a plant palette composed of locally indigenous, native species that are adapted to the conditions found on the project site without the need for supplemental summer irrigation. The landscaping plan shall be checked against the floral list of the Biota Report for the project. Only locally indigenous native species from that list are to be used in the landscaping plan.

Implementation of **Mitigation Measure Bio-17** would reduce potential impacts resulting from the increase in populations of non-native plant species to a less than significant level.

11.3.4 Bio-18: Increased Human and Domestic Animal Presence

11.3.4.1 Impact

The proposed project would increase the number of visitors to the church retreat center. Given the presence of a trail system that provides access from the project site into the Angeles National Forest, the proposed project would also be expected to increase use of the Angeles National Forest. The effect of this increase in human presence would be the potential for increased human disturbances to, and ongoing degradation of, natural habitats within and adjacent to the project site. Specifically, increased use of the site could result in increased noise disturbances to wildlife (especially if within the breeding season of birds) leading to nest abandonment and habitat avoidance; the harassment and/or capture of slower moving species, such as some reptiles and amphibians; the displacement of other wildlife species; increased amount of refuse and pollutants in the area and subsequent attraction of non-native animals to the site; compaction of soils; and trampling of ground-dwelling flora and fauna.

An increase in the number of visitors to the church retreat could also result in a corresponding increase in use of the project site and adjacent areas by dogs and cats. Dogs and cats can disturb nesting or roosting sites and disrupt the normal foraging activities of wildlife. These disturbances may have a long-term effect on the behavior of both common and special-status animals and can result in their extirpation from the area. Given the above, impacts caused by increased human and domestic animal presence are considered to be significant.

11.3.4.2 Mitigation Measures

Bio-18a A public awareness program shall be developed that is intended to educate visitors to the retreat center of the importance of not disturbing the remaining woodland and chaparral habitats on and adjacent to the site, to staying on designated trails on the site and within the Angeles National Forest, to properly dispose of trash, and to not feed wildlife. This program shall include, among other things, posting an informational board in the proposed dormitory, posting signs identifying ecologically sensitive areas, and the installation of permanent wildlife-permeable fencing between heavy use areas such as trailheads and near buildings, driveways, and parking areas. The applicant shall be responsible for the initial development and maintenance of the public awareness program and the installation of interpretive signs and fencing. The measures to be included in the public awareness program shall be subject to approval by the County prior to the issuance of a grading permit.

Bio-18b While outdoors on the project site, all dogs shall be required to be leashed or to be within a fenced enclosure. Cats are not to be allowed to roam freely on the site.

Bio-18c Waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas throughout the project site.

Implementation of **Mitigation Measures Bio-18a, Bio-18b, and Bio-18c** would reduce indirect impacts from increased human and domestic animal presence to a less than significant level.

11.3.5 Bio-19: Construction and Grading Activities

11.3.5.1 Impact

Construction and grading activities may result in deposition of fill as well as siltation and erosion into the sag ponds and wetlands, excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species, and soil compaction around remaining trees. These impacts, either permanent or temporary, are considered significant.

Indirect impacts to oak trees within or bordering the proposed development area could occur if machinery is operated within the dripline of these oaks during construction and grading activities. Given their location in relation to proposed development, a total of 10 oak trees could be subject to indirect impacts from the project. These impacts are considered significant.

11.3.5.2 Mitigation Measures

Bio-19a Prior to the issuance of a grading permit, the applicant shall submit to the County for review proposed BMPs. Measures shall be included to control siltation and erosion and excessive dust accumulation on vegetation. BMPs shall include, but not be necessarily limited to the following:

- Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter a flowing stream or be placed in locations that may be subject to normal storm flows during periods when storm flows can reasonably be expected to occur.
- Vehicles shall not be driven or equipment operated in areas of ponded or flowing water, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed.
- Silt settling basins, installed during the construction process, shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.

- If a stream channel has been altered during the construction and/or maintenance operations, its low flow channel shall be returned as nearly as practical to pre-project topographic conditions without creating a possible future bank erosion problem, or a flat, wide channel or sluice-like area. The gradient of the streambed shall be returned to pre-project grade, to the extent practical, unless it represents a wetland restoration area.
- Temporary structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.
- Staging/storage areas for construction equipment and materials shall be located outside of any ordinary high water marks.
- Any equipment or vehicles driven and/or operated within or adjacent to streams or wetlands shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.
- No debris, bark, slash sawdust, rubbish, cement or concrete or washing thereof, oil, petroleum products, or other organic material from any construction, or associated activity of whatever nature, shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, watercourses. When construction operations are completed, any excess materials or debris shall be removed from the work area.
- No equipment maintenance shall be done within or near any stream where petroleum products or other pollutants from the equipment may enter these areas with stream flow.

Bio-19b

All oak tree protected zones (the area at least 15 feet from the trunk or 5 feet beyond the drip line, whichever is greater) within 50 feet of construction activities shall be enclosed in a temporarily chain-link fenced zone for the duration of the construction activities. No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after construction activities have ceased and the project biologist confirms the health of preserved trees.

Implementation of the **Mitigation Measures Bio-19a** and **Bio-19b** would reduce potential impacts resulting from construction and grading to a less than significant level.

11.4 CUMULATIVE IMPACTS

11.4.1 Impacts

Cumulative impacts are those arising from the combined affects of individually insignificant impacts that, when combined, are significant. Development projects in the region of the Young Nak Retreat Center include the Painted Turtle Care Facility and the Elizabeth Lake RV Park. Farther from the project site (12 miles to the northwest), the approximately 12,000-acre Centennial development has been proposed.

The proposed Young Nak Retreat Center project would not result in significant losses of special-status plant species or communities, nor would it substantially affect a wildlife movement corridor. The project-related loss of wetland habitat would be limited to 0.05 acre. The incremental loss of habitats associated with the proposed project is not expected to have a substantial adverse affect on any special-status wildlife species. Additionally, the direct loss of special-status bird nests and silvery legless lizard would be avoided through implementation of **Mitigation Measures Bio-12a** and **Bio-12b**. The project will contribute to the cumulative loss of biological resources in the region; however, considering that project development in the region has been small-scale and widely dispersed, it is not expected that the cumulative impact will become significant as a result of the implementation of this project.

11.4.2 Mitigation Measures

No mitigation is required.

12.0 PROJECT COMPATIBILITY WITH SEA

The County of Los Angeles General Plan specifies the following “design compatibility criteria” for projects proposed within a designated SEA:

- The development is designed to be highly compatible with the biotic resources present;
- The development is designed to maintain water bodies, water courses, and their tributaries in a natural state;
- The development is designed so that wildlife movement corridors (migratory paths) are left in a natural and undisturbed state;
- The development retains sufficient natural vegetative cover and/or open space to buffer critical resource areas from the proposed use;
- Where necessary, fences or walls are provided to buffer important habitat areas from development; and
- Roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas, or migratory paths.

The above design compatibility criteria are requirements for the SEA CUP in the County Zoning Code. Failure to meet these criteria could prevent an application from being approved by the Planning Commission. The County of Los Angeles General Plan originally characterized SEAs as areas that contain unique, dwindling, or other rare plant and animal resources that needed to be preserved for the purpose of public education, research, and other non-disruptive outdoor uses. The proposed project has been designed to avoid sensitive biological resources on the site. Specifically, proposed development would primarily occur adjacent to existing structures or within more disturbed portions of the site. No sensitive plant communities (willow riparian woodland and willow-oak woodland), water bodies (sag ponds), or wildlife movement corridors would be impacted by the proposed project. Impacts to scrub oak chaparral and pine-oak woodland would be limited to 0.02 acre and 0.04 acre, respectively. The existing vegetative cover that serves to buffer the developed portions of the site from the adjacent natural plant communities to the south, east, west, and north would be retained. Consequently, the proposed project can be found to be consistent with the design compatibility criteria described above and is not expected to adversely affect the overall biological value and integrity of SEA No. 58.

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