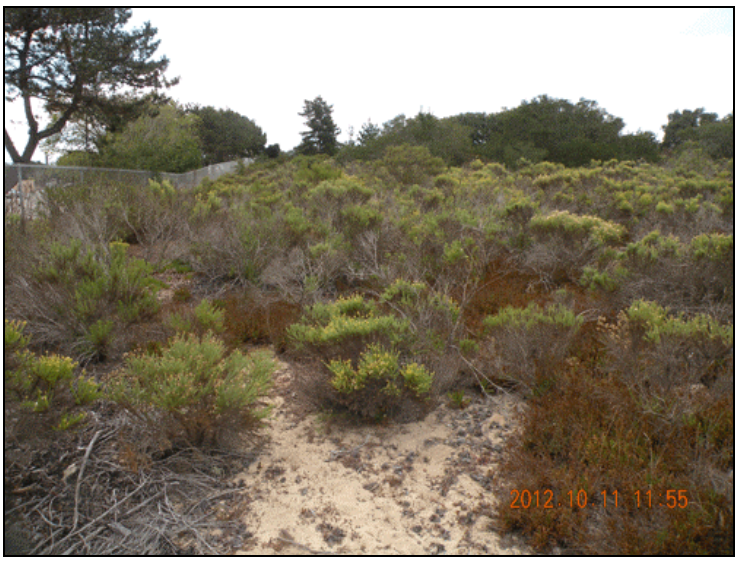
David Magney Environmental Consulting

BIOLOGICAL ASSESSMENT OF QUEEN OF ANGELS CHURCH LOMPOC, CALIFORNIA



Prepared for:

COUNTY OF SANTA BARBARA
OFFICE OF PLANNING AND DEVELOPMENT

On behal of:

CRC ENTERPRISES

JANUARY 2013

Mission Statement

To provide quality environmental consulting services with integrity that protect and enhance the human and natural environment

DMEC

Biological Assessment
of
Queen of Angels Church
Lompoc, California

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SUMMARY

This report is a Biological Assessment for the property at 3495 Rucker Road, Lompoc, in Santa Barbara County (APNs 097-380-025 (and 026, 035, and 036). The purpose of this assessment is to legalize existing illegal lots, one of which is approximately 10.9-acres in size. No new developed is proposed on the church property. Santa Barbara County has rigorous environmental review requirements that satisfy county policies and regulations pursuant to the California Environmental Quality Act (CEQA) for projects that require discretionary review. The County of Santa Barbara requires that lot splits as proposed are considered discretionary actions that require compliance with the California Environmental Quality Act (CEQA). Since a portion of the property is undeveloped and contains natural vegetation, the County requires a Biological Assessment.

David Magney Environmental Consulting conducted a field survey of the project site to assess plant and animal species and habitats present. Six special-status plant species and one sensitive habitat type, Central Maritime Chaparral, were found on the project site, primarily on the westernmost parcel. Additional special-status plant species may be present in the western portion of the project site.

Suitable habitat is present on the western portion of the project site for several special-status wildlife species.

SECTION 1. CONSTRUCTION FOOTPRINT DESCRIPTION

1.1 PROJECT LOCATION

The Queen of Angels Church project site is located in the Mission Hills at the southwest corner of Rucker Road and Burton Mesa Boulevard, just north of the City of Lompoc, as shown on Figure 1, General Project Site Location Map, and Figure 2, Map of Project Site. Figure 2 illustrates the site features with a color aerial photograph as a base, with the parcel boundaries depicted on the map.

The project site ranges in elevation at 367 feet above mean sea level (msl) in the northwest corner to 653 ft msl at the northeast corner.

The California Department of Fish and Game's Burton Mesa Ecological Preserve is located immediately to the west and south of the project site.

Figure 1. General Project Site Location Map

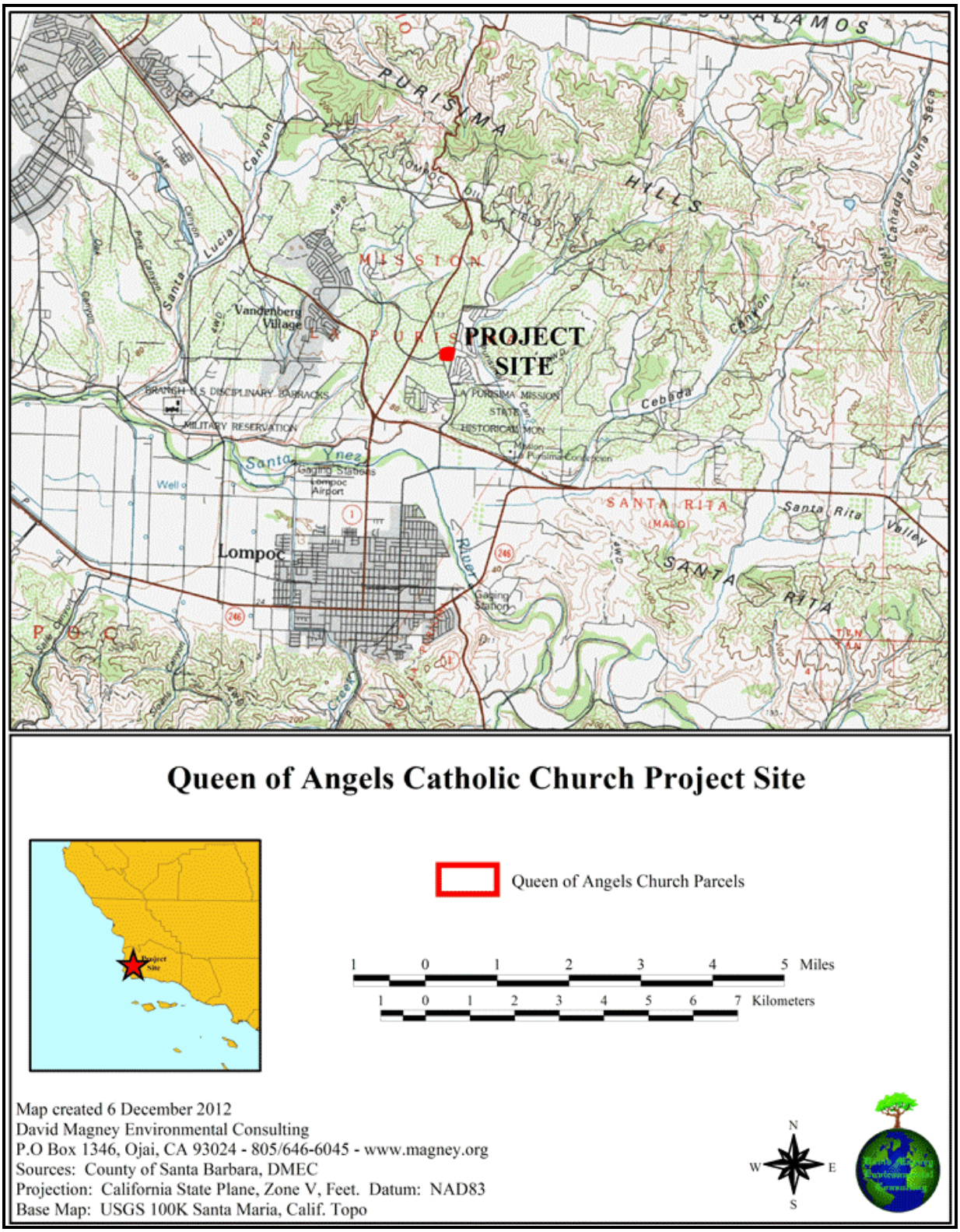


Figure 2. Map of Project Site

SECTION 2. SURVEY AREA DESCRIPTION AND METHODS

2.1 SURVEY PURPOSE

Discretionary actions undertaken by public agencies are required to demonstrate compliance with the California Environmental Quality Act (CEQA). The purpose of this Initial Study Biological Assessment (ISBA) is to gather enough information about the biological resources associated with the proposed project, and their potential to be impacted by the project, to make a CEQA Initial Study significance finding for biological resources. In general, ISBAs are intended to:

- Provide an inventory of the biological resources on a project site and the values of those resources.
- Determine if a proposed project has the potential to impact any significant biological resources.
- Recommend project redesign to avoid, minimize, or reduce impacts to significant biological resources.
- Recommend additional studies necessary to adequately assess potential impacts and/or to develop adequate mitigation measures.
- Develop mitigation measures, when necessary, in cases where adequate information is available.

This ISBA was conducted to determine baseline conditions of the Queen of Angels Church property to assist with legalization of existing lots.

2.2 SURVEY AREA DESCRIPTION

The Queen of Angels Church property at the southwest corner of Burton Mesa Boulevard and Rucker Road consists of two adjacent but different survey areas, Survey Area 1 (SA1) and Survey Area 2 (SA2). They also occur on different parcels.

The survey areas are mapped on Figure 3, Map of Survey Areas. Both areas are relatively flat. SA1 is mostly developed, containing a church, rectory, school building, out buildings, and parking lot and driveways, with ornamental landscaping between the buildings. SA2 is undeveloped and dominated with natural vegetation.

Survey Area 1 (SA1)

Location

SA1 is the open area immediately north of the church rectory/parking lot to the southwestern corner of Rucker Road and Burton Mesa Boulevard. It also includes the narrow strip of vegetated area immediately between the church/school parking lot and driveway and the western perimeter fence.

Survey Area Boundaries

SA1 is bounded on the north by Burton Mesa Boulevard, Rucker Road on the east, and church/school driveways to the south and west.

Survey Area Environmental Setting

SA1 has largely been disturbed as a result of having the natural vegetation removed. The area is generally flat, with fairly loose, sandy soil, with ornamental trees and shrubs planted around the perimeter. The majority of the area is vacant with sparse occurrences of annual and perennial herbs and grasses, and is likely periodically used for school activities.

Surrounding Area Environmental Setting

To the north, beyond the road, is dominated by natural shrub vegetation similar to that found within Survey Area 2 (SA2) to the west of SA1. The area to the east is developed with single-family residences and a small strip mall. To the south of SA1 is developed by the Queen of Angels rectory, church/chapel, school, and parking lot. The area to the south of the church property is naturally vegetated similar to that of SA2. The area to the west is naturally vegetated, and consists of SA2.

Cover

Cover classes identified and mapped within SA1 include: developed, ornamental landscaping, and ruderal scrub. The cover types are generally classed as consisting of native or nonnative vegetation, agriculture, bare or cleared, developed (buildings or paved), and other. The vast majority of SA1 consists of buildings and pavement.

Survey Area 2 (SA2)

Location

SA2 is the naturally vegetated area immediately west of the developed portion of the church and school.

Survey Area Boundaries

SA2 is bounded by Burton Mesa Boulevard on the north, the Queen of Angels Church facilities on the east, and natural vegetation to the south and west.

Survey Area Environmental Setting

SA2 is mostly in a natural state, dominated by scrub and woodland vegetation. Some dumping of trash and brush clippings have been disposed of within SA2, primarily adjacent to the fence on the east side, next to the church facilities.

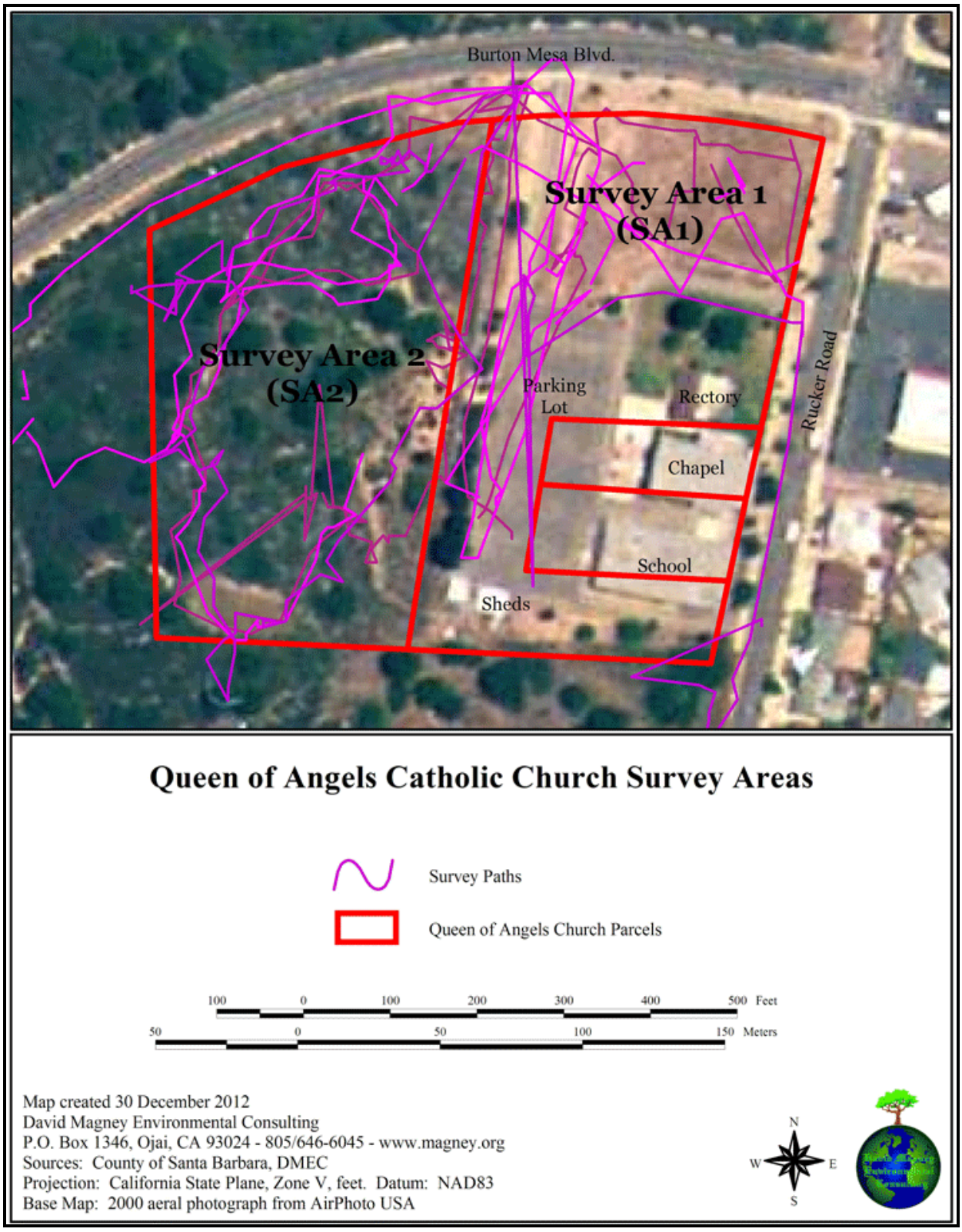
Surrounding Area Environmental Setting

Natural vegetation is the primary condition of the surrounding areas, except on the east where the Queen of Angels Church facilities are located.

Cover

Cover classes identified and mapped within SA1 include: native scrub, woodland, and herbaceous forblands. The cover types are generally classed as consisting of native or nonnative vegetation, agriculture, bare or cleared, developed (buildings or paved), and other. The vast majority of SA2 consists of native vegetation.

Figure 3. Map of Survey Areas



2.3 METHODOLOGY

The methods followed to conduct the field survey and assess baseline conditions are described below.

Literature Survey

DMEC conducted a search of the California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDB) RareFind4[1] for the Lompoc, California USGS Quadrangle (in which the Queen of Angels Catholic Church property exists), and for the surrounding quadrangles, and CNDDB's list of special-status wildlife (CNDDB 2011) and plants (CNDDB 2012). DMEC conducted this database search to account for special-status species tracked by the CNDDB in the area and with potential to occur at the project site.

The Consortium of California Herbaria[2] (CCH) online database was consulted to determine what plant species have been collected previously from the vicinity of the project site. The Calflora[3] online database was also searched for species reported from the area.

DMEC conducted a literature search of California Native Plant Society's *Inventory of Rare and Endangered Plants of California* (CNPS 2001, 2012) and *Checklist of Santa Barbara County Rare Plants* (Wilken 2007) to account for other special-status plant species not tracked by CNDDB with potential to occur in the vicinity of the proposed project site. Projects reviewed under California Environmental Quality Act (CEQA) should consider impacts to Locally Important Species as significant. Generally, impacts to an entire population of one or more of the species listed herein would be considered significant. The CNDDB Special Animals List (CNDDB 2011) was also referenced to determine if any wildlife species observed onsite are considered special-status species. DMEC also conducted a search of its in-house GIS database[4] and library for rare terrestrial gastropods known or potentially occurring at or near the project site.

Field Survey Methods

DMEC biologists conducted a biological resources surveys on 11 October and 20 December 2012. The surveys were conducted to identify the native and naturalized flora and fauna onsite, including special-status plant and wildlife species and sensitive habitats. The property parcel was walked over to account for as many observable plant and wildlife species as possible onsite.

[1] CNDDB. 2012. GIS database search of project area. (Version 30-Sept-2012.) California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

[2] Consortium of California Herbaria online database - http://ucjeps.berkeley.edu/consortium/

[3] Calflora online database of native and naturalized plant occurrences within California - http://www.calflora.org/

[4] DMEC, through the Sespe Institute, Inc., maintains the only GIS database of all terrestrial gastropods known to occur in California, based on Roth and Sadeghain's (2003) publication of same.

Global Positioning System (GPS) units were carried to track footpaths and to mark waypoints of findings of interest.

All plant and wildlife species observed were recorded. Plant species that could not be identified in the field were photographed and collected for identification and vouchering.

DMEC followed the CNPS and CDFG botanical survey protocols the extent possible; however, field surveys conducted during the spring and early summer months would be necessary to satisfy those survey protocols.

Existing conditions were documented with site photographs, including vegetation cover, disturbance factors, and common and special-status plant and wildlife species. Voucher specimens were collected of vascular plants and lichens observed, which were also photographed. Some of the specimens were only collected for identification purposes while others were preserved as permanent records, and are currently housed in the MAGNEY Herbarium located in Ojai, California. These voucher specimens will be transferred to and deposited in the UCSB Herbarium.

Mapping Methods

Mapping of land cover and vegetation alliances was performed with the aid of ArcGIS programs (ArcView 3.3 and related programs) using standard photo interpretation techniques and methods, supported by ground-truthing. The vegetation map was drawn onscreen at a scale of 1:500 to 1:2,900 using high-resolution georectified color aerial photographs dated 2000, also used as a base layer. The 2000 aerial photo was compared to imagery of the site dated 22 March 2009 available through Google Earth, as well as imagery dating back to 2 September 1994, with several dates in between. (No obvious significant differences were observed in either Survey Area.)

The polygons on this map differentiate the distinct land cover signatures related to patterns observed on the aerial photograph. These polygons were classified and attributed with different vegetation alliances, following CNPS vegetation classification protocols (Sawyer et al. 2009), after checking all available vegetation data gathered onsite by DMEC. DMEC's field data were also consulted as ground-truthing points in order to discern the boundaries of vegetation alliances that were not easily detected with the color aerial imagery.

Laboratory Methods

DMEC biologists identified plant and wildlife species collected and/or photographed in DMEC's laboratory, using reference materials and online resources, and binocular dissecting scope and hand lens when necessary to examine specific and key characteristics to aid in identification. Vascular plants were identified using dichotomous keys found in Baldwin et al. (2012), Flora of North America Committee (1993+), and Tulig and Nesom (2012).

DMEC was assisted by Dr. Shirley Tucker, Professor Emeritus, UCSB, in identifying lichen specimens collected from the project site using a 10X hand lens and a 40X dissecting microscope

and identification keys in Hale (1979) and Nash et al. (2001, 2004, 2007). Lichen nomenclature follows Esslinger (1999) and Nash et al. (2001, 2004, 2007), except where updated by more recent taxonomy.

SECTION 3. BIOLOGICAL INVENTORY

This section describes the existing, pre-project, conditions of the project site, including habitats (primarily natural vegetation), and the flora and fauna of the site.

3.1 PLANT COMMUNITIES

Plant communities are natural groupings of vascular and nonvascular plants on one or more substrate types, usually soils, and grouped according to growth habit and dominant and/or characteristic species.

Plant Communities/Habitats

Locally important or rare plant communities were found within the survey area(s)

As described in greater detail below, a significant portion of the project site supports a rare plant community: Central Maritime Chaparral (Burton Mesa Chaparral).

Major Plant Communities Summary

The project site contains herbaceous, scrub, and woodland/forest plant communities, described under five basic classes: grassland/herbland, scrub, chaparral, forest/woodland, and disturbed. The plant community classification system follows Sawyer et al. (2009), with formation class at the highest level, followed by subclass, formation, division, macrogroup, group, alliance, and then association at the most refined level.

Specifically, the predominant habitat types and associated plant communities (alliances) observed onsite are classified hierarchically and mapped herein according to Sawyer et al. (2009).

Descriptions of each general habitat and their plant alliances are provided in the following subsections and are summarized in Table 1, Plant Communities of the Project Site. Figure 4, Map of Plant Communities on Queen of Angels Property, illustrates the distribution of the plant communities making up the general habitats of the Queen of Angels property.

Plant Community Descriptions

Below are brief descriptions of each of the alliances and associations (plant communities) observed within the Queen of Angels project survey area, following the CNPS's *Manual of California Vegetation* [*MCV*] (Sawyer et al. 2009). Taxonomic nomenclature follows the Flora

of North American North of Mexico (Flora of North America Editorial Committee 1993+) and *The Jepson Manual* (Baldwin et al. 2012), or more recent taxonomic treatments.

Eight alliances were observed within the Queen of Angels study area, subdivided into 10 associations. The alliances are described below, grouped by general growth form, then listed alphabetically, and with each association listed alphabetically. Photographs of each alliance are included as they occur on the project site.

Herbaceous Communities

Herbaceous communities include alliances, stands, and associations that are dominated by, and almost exclusively, herbaceous, non-woody plants. Communities with woody dominants, even when they contain significant amounts of herbaceous species, are included under Shrubland or Woodland communities.

Herbaceous communities found in the Queen of Angels survey area are divided into two groups: forblands and grasslands.

FORBLANDS

Forblands are areas dominated by forbs with sparse or no shrubs or trees. Some nonnative stands contain a diversity of native species (Sawyer et al. 2009).

Corethrogyne filaginifolia Herbaceous Alliance

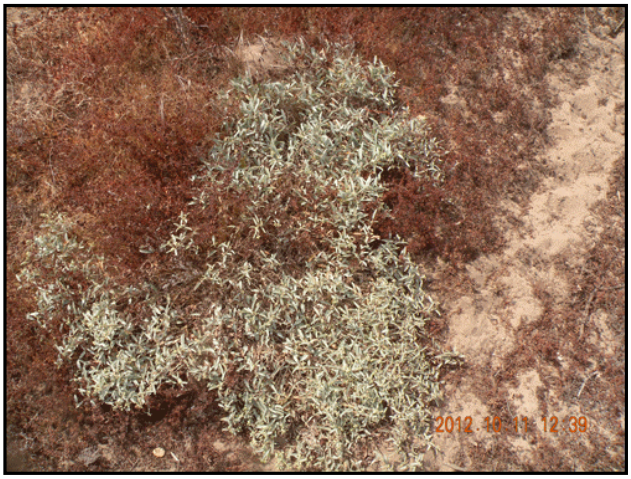
Corethrogyne filaginifolia Herbaceous Alliance consists of herbaceous vegetation dominated by *Corethrogyne filaginifolia* (California Cudweed-aster). These stands are generally of low stature, below 1 m high and may be found in open areas in foothills and forests and rangelands. Emergent trees or shrubs may be present at low cover (Sawyer et al. 2009). This alliance is mostly in a ruderal (human disturbed) condition with the natural vegetation removed (probably by mowing) annually.

Two associations of *Corethrogyne filaginifolia* Herbaceous Alliance has been observed within the Queen of Angels survey area:

- *Corethrogyne filaginifolia* Association
- *Corethrogyne filaginifolia-Croton californicus* Ruderal Association

Corethrogyne filaginifolia Herbaceous Alliance and its associations cover 1.762 acres of the project site, mostly within SA1, with a small area at the northeast corner of SA2.

Croton californicus-Mucronea californica Herbaceous Alliance



Croton californicus-Mucronea californica Provisional Herbaceous Alliance consists of herbaceous vegetation dominated by *Croton californicus* (California Croton) and *Mucronea californica* (California Spineflower), a special-status species. These stands are generally of low stature, below 1 m high and may be found in open areas in foothills and forests and rangelands. Emergent trees or shrubs may be present at low cover (Sawyer et al. 2009).

One association of *Croton californicus-Mucronea californica* Provisional Herbaceous Alliance has been observed within the Queen of Angels survey area:

- *Croton californicus-Mucronea californica* Association

Croton californicus-Mucronea californica Herbaceous Alliance and its association cover 0.021 acre of the project site, found at the southern end of SA2. Since this vegetation alliance is dominated by a special-status species, it should be treated as a sensitive plant community.

Horkelia cuneata ssp. *puberula-Corethrogyne filaginifolia* Herbaceous Alliance

Horkelia cuneata ssp. *puberula- Corethrogyne filaginifolia* Provisional Herbaceous Alliance[5] consists of herbaceous vegetation dominated by *Horkelia cuneata ssp. puberula* (Mesa Horkelia)

[5] The *Horkelia cuneata* ssp. *puberula* - *Corethrogyne filaginifolia* Provisional Herbaceous Alliance is considered "Provisional since it has not yet been formally described. Sawyer et al. (2009) provides protocols for classifying and "naming" vegetation alliances found during fieldwork until such time as CNPS can formally describe it.

and *Corethrogyne filaginifolia*. This alliance is similar to *Corethrogyne filaginifolia* Herbaceous Alliance; however, the domiant and characteristic species is *Horkelia cuneata* ssp. *puberula*. It generally forms a low stature (below 1 m high), open ground cover, and may be found in open areas in foothills and forests and rangelands.

One association of *Horkelia cuneata* ssp. *puberula* - *Corethrogyne filaginifolia* Provisional Herbaceous Alliance has been observed within the Queen of Angels survey area:

- *Horkelia cuneata* ssp. *puberula-Corethrogyne filaginifolia* Association

Horkelia cuneata ssp. *puberula-Corethrogyne filaginifolia* Provisional Herbaceous Alliance covers 0.302 acre of the project site. Since it is dominated by a special-status species, this alliance should be treated as a sensitive habitat type.

GRASSLANDS

Grasslands are similar to forblands, but with a much higher grass component. Most grasslands encountered were scattered in flatter areas throughout the chaparral and coastal sage scrub. Some non-native stands contain a diversity of native species (Sawyer et al. 2009), and are more accurately called prairie. Properly timed surveys may be needed to detect these.

Bromus diandrus Semi-Natural Herbaceous Stands

Bromus diandrus Semi-natural Herbaceous Stands consist of grasslands where *Bromus* species are dominant or co-dominant. This herbaceous stand is dominated by *Bromus diandrus* (Ripgut Brome). These stands are generally of low stature, below 1 m high and may be found in open areas in foothills and forests, rangelands, and waste places. Emergent trees or shrubs may be present at low cover (Sawyer et al. 2009). In this alliance *Croton californicus* and *Cirsium vulgare* were the most common species observed occurring with *Bromus diandrus*.

Bromus Semi-natural Herbaceous Stands within the Queen of Angels survey area consists of one association:

- *Bromus diandrus* Semi-natural Herbaceous Stand Association

Bromus diandrus Semi-natural Herbaceous Stands and its association cover 0.146 acre of the project site.

SHRUBLAND COMMUNITIES

Shrubland communities are vegetation alliances dominated by woody shrubs. Two basic types of shrubland community types are found in the Queen of Angels survey area: chaparral and coastal heather scrub.

Chaparral

Chaparral consists of dense evergreen shrubs with distinctive sclerophyllous leaves, which are small, stiff, and thick. The chaparral present on the project site is classified as Central Maritime Chaparral. This chaparral type is recognized as a special-status habitat by the CNDDB.

Adenostoma fasciculatum Shrubland Alliance

Adenostoma fasciculatum Shrubland Alliance (Chamise Chaparral) is a typical chaparral plant community dominated by *Adenostoma fasciculatum* var. *fasciculatum* (Chamise) as the primary and characteristic shrub species, with over 60% relative cover occupied by *A. fasciculatum*. *A. fasciculatum* is the most common chaparral community in California

and grows to just under 4 m high and 3 m wide. *A. fasciculatum* is pre-adapted to fire and typically resprouts from a lignotuber flowing wildfires. The canopy of this alliance is continuous to intermittent, with a sparse to intermittent herbaceous layer. *Adenostoma fasciculatum* Shrubland Alliance also provide

habitat for a rich epiphytic lichen flora, dominated by species of *Usnea*, *Candelariella*, *Ramalina*, *Parmotrema*, and *Evernia prunastri*, among others.

Adenostoma fasciculatum Shrubland Alliance within the survey area consists of two associations:

- *Adenostoma fasciculatum-Ericameria ericoides* Association
- *Adenostoma fasciculatum-Toxicodendron diversilobum* Association

Adenostoma fasciculatum Shrubland Alliance and its associations cover 2.599 acres of the project site. It is a form of Central Maritime Chaparral.

Arctostaphylos rudis Shrubland Special Stand

Arctostaphylos rudis Shrubland Special Stand Alliance is restricted to uplands, mesas, and stabilized dunes on old stabilized dune sands of the Lompoc and Nipomo areas of the Southern California Coast. The shrubs in this community are <5 m in height and the canopy is open to continuous, dominated by *Arctostaphylos rudis* (Sand Mesa Manzanita), a rare plant on CNPS rank IB and is a dominant or co-dominant plant in *Arctostaphylos rudis* Shrubland Special Stand Alliance. This alliance is one of the components of Central Maritime Chaparral and has a rarity ranking of G1/S1.2.

One association of *Arctostaphylos rudis* Shrubland Alliance was observed within the survey area:

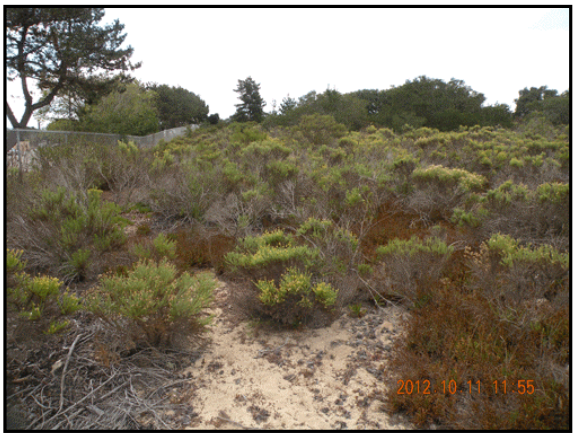
- *Arctostaphylos rudis-Ceanothus cuneatus* var. *fascicularis* Association

Arctostaphylos rudis Shrubland Special Stand Alliance and its association cover 0.089 acre of the project site.

COASTAL HEATHER SCRUB

Low-statured, drought-deciduous, shrubs and subshrub species dominate coastal Heather Scrub. The composition of this community frequently varies depending upon the successional stage and physical circumstances of the area in which it occurs.

Ericameria ericoides Shrubland Alliance



Ericameria ericoides Shrubland Alliance is dominated by *Ericameria ericoides* ssp. *ericoides* (Mock Heather) in the shrub canopy. The canopy is open and typically less than 1.5 meters tall. There is a continuous herbaceous layer (Sawyer et al. 2009). This alliance is found on well-drained soils in flats and low slopes.

One *Ericameria ericoides* Shrubland Alliance association was found during the botanical survey:

- *Ericameria ericoides-Horkelia cuneata* ssp. *puberula* Association.

Ericameria ericoides Shrubland Alliance and its association cover 0.912 acre of the project site.

Woodland Communities

Woodland communities are plant communities with multiple layers, the dominant and characteristic layer composed of trees. The tree canopy ranges in cover from open, with broad spaces between the trees, to a closed canopy, where the canopy of the trees intertwine to some extent, leaving little or no gaps, usually referred to as forest.

Quercus agrifolia Woodland Alliance

Quercus agrifolia Woodland Alliance is a single vegetation alliance dominated by *Quercus agrifolia* trees. *Quercus agrifolia* Woodland Alliance typically occurs in or adjacent to drainages and slopes and provides habitat for species that prefer shady, moister sites such as *Toxicodendron diversilobum.*

Quercus agrifolia Woodland Alliance also provides habitat for a diverse epiphytic lichen flora, dominated by

Xanthoparmelia and *Xanthomendoza* species.

Two *Quercus agrifolia* Woodland Alliance associations were found during the botanical surveys:

- *Quercus agrifolia* Association
- *Quercus agrifolia/Carpobrotus chilensis* Association.

Quercus agrifolia Woodland Alliance and its association cover 1.15 acres of the project site.

Developed/Disturbed

Developed/Disturbed is land that has been altered, either by human activities (for building and road development purposes) or by natural causes. As a result, this altered land is generally either permanently developed or is initially bare ground until natural succession begins. Habitat succession is a slow process of reestablishing original plant communities, but successional habitats are readily invaded by ruderal introduced and often-invasive plant species. Disturbed areas onsite primarily exist as dirt roads and other cleared land. Limited vegetation occurs in this land cover type and tends to be weedy. Developed/Disturbed land cover occupies approximately 3.03 acres of the Queen of Angels property; all on the eastern parcels.

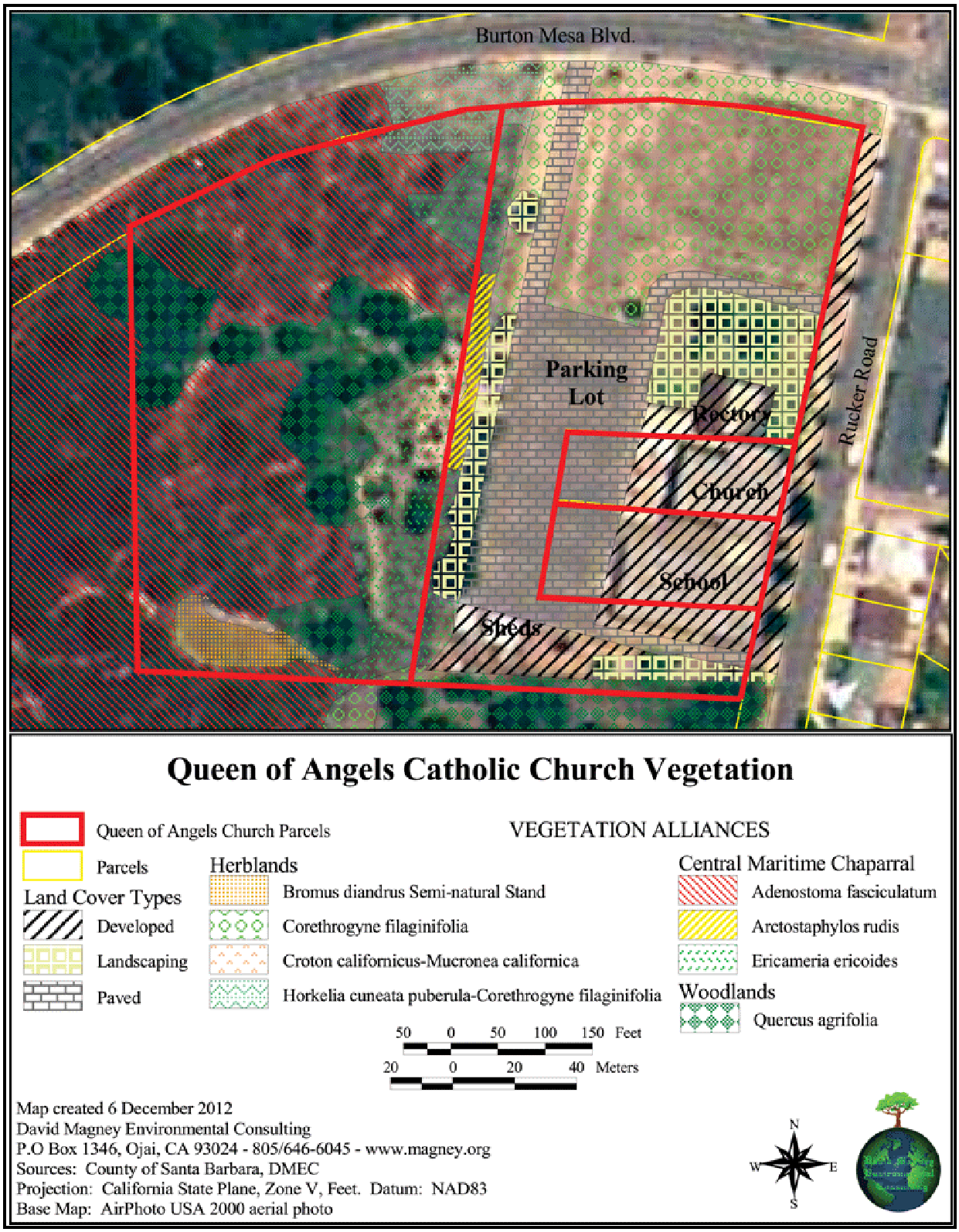
Landscaping

Parts of the project site adjacent to developed areas are landscaped with ornamental trees, shrubs, and other plants. Landscaped areas cover 0.72 acre of the Queen of Angels property, all on the eastern parcels. The most commonly planted tree onsite is the Monterey Pine (*Pinus radiata*).

Table 1. Plant Communities of the Project Site

Vegetation Alliance	Plant Association	Acres Total
Corethrogyne filaginifolia Herbaceous Alliance	*Corethrogyne filaginifolia* Association	1.636 acres (0.622 hectare)
	Corethrogyne filaginifolia-Croton californicus Ruderal Association	1.584 acres (0.641 hectare)
Croton californicus-Mucronea californica Provisional Herbaceous Alliance	*Croton californicus-Mucronea californica* Provisional Association	0.021 acre (0.008 hectare)
Horkelia cuneata ssp. *puberula- Corethrogyne filaginifolia* Provisional Herbaceous Alliance	*Horkelia cuneata* ssp. *puberula-Corethrogyne filaginifolia* Provisional Association	0.302 acre (0.122 hectare)
Bromus diandrus Semi-natural Herbaceous Stands	*Bromus diandrus* Semi-natural Herbaceous Stands Association	0.0146 acre (0.059 hectare)
Adenostoma fasciculatum Shrubland Alliance	*Adenostoma fasciculatum-Ericameria ericoides* Association	1.675 acres (0.678 hectare)
	Adenostoma fasciculatum-Toxicodendron diversilobum Association	0.924 acre (0.374 hectare)
Arctostaphylos rudis Shrubland Special Stand Alliance	*Arctostaphylos rudis-Ceanothus cuneatus* var. *fascicularis* Association	0.089 acre (0.036 hectare)
Ericameria ericoides Shrubland Alliance	*Ericameria ericoides - Horkelia cuneata* ssp. *puberula* Association	0.912 acre (0.369 hectare)
Quercus agrifolia Woodland Alliance	*Quercus agrifolia* Woodland Association *Quercus agrifolia/Carpobrotus chilensis* Woodland Association	0.245 acre (0.99 hectare)
Developed/Disturbed	Barren	3.03 acres (0.123 hectare)
Landscaping	Ornamental Plantings	0.72 acre (0.291 hectare)

Figure 4. Map of Plant Communities on Queen of Angels Property



Waters and Wetlands

Protected wetlands or waters were not found within the survey area(s).

No waters of the U.S. or California or wetlands occur onsite or on adjacent parcels.

3.2 PLANT AND ANIMAL SPECIES

Endangered, threatened, rare, or locally important species were observed or have a moderate to high potential to occur within the survey area(s). Additional research is needed to determine if other endangered, threatened, rare, or locally important species have a moderate to high potential to occur within the survey area(s).

Habitat suitable for nests of birds protected under the Migratory Bird Treaty Act does exist within the survey area(s).

Flora

The flora of the project consists of vascular and nonvascular plants growing naturally or planted onsite. Vascular plants consist of trees, shrubs, herbs, grasses and graminoids (monocot species not in the grass family), and ferns and fern allies. Nonvascular plants consist of fungi, lichens, and bryophytes (mosses, liverworts, and hornworts).

Fifty-one (51) species of vascular plants, thirty-eight (38) lichen species, one (1) moss species, and one (1) fungus (mushroom) species were observed onsite during the DMEC surveys.

Vascular Plant Flora

The vascular plant flora is relatively depauperate, consisting of 25 native taxa and 15 naturalized nonnative species. This was supplemented with 10 planted species occurring within the landscaped areas of the property. Numerous additional native taxa are expected to occur onsite, particularly in the western parcel, after sufficient precipitation has allowed a number of annual and ephemeral perennial species to germinate and resprout. A few of the landscaping species have escaped into the naturally vegetated areas of the project site, such as *Pinus radiata* and *Carpobrotus edulis*.

Floristically, evergreen shrubs dominate the project site's flora, with perennial and annual herbs occupying open areas between the dominant shrubs and emergent trees (*Quercus agrifolia*). The native and naturalized flora is composed of 14 families, with Asteraceae and Poaceae containing

the most species, respectively, and 37 genera observed for the 41 taxa representing the natural flora (excluding the 10 planted ornamental species).

The flora of the two survey areas was quite different, a result of the eastern parcel (SA1) having been developed and disturbed. Very few of the ornamental plant species were found in the western parcel (SA2), such as *Pinus radiata* and *Carpobrotus edulis*; however, several of the native and naturalized species common in SA2 also occurred in SA1.

Regardless of the depauperate status of the native vascular plant flora, it has a relatively high number of special-status species (6) for such a small area. This indicates the uniqueness of the botanical resources of the Burton Mesa/Mission Hills area of Santa Barbara County and California. Additional vascular plant species likely occur onsite as ephemeral annuals that were not detectable during the time of the field surveys.

Lichen Flora

The thirty-eight (38) lichens taxa observed on the study site included terricolous (soil) and corticolous (bark) species, consisting of crustose, foliose, and fruticose growth habits. The lichen flora is relatively rich[6] and is a strong indicator of the lack of habitat disturbance, such as from fire or anthropomorphic activities. Nearly all the lichens were observed in SA2. Most of the lichens were foliose or fruticose forms, with members of the Parmeliaceae being most common. One or more of the lichen species present may be locally rare (five or fewer populations in Santa Barbara County). Several of those found have been rarely collected in Santa Barbara County.

Left: Terricolous lichen habitat. Right: Corticolous lichen habibat on chaparral shrubs.

[6] Shirley Tucker, PhD., Professor Emeritus UCSB, personal communication 28 December 2012 regarding lichen flora of project site.

Left: Corticolous lichen habitat on chaparral shrubs. Right: Corticolous lichen habitat on tree trunks.

Bryophyte Flora

The bryophyte flora (mosses, liverworts, and hornworts) was depauperate, represented by one species of moss growing on soil under a *Quercus agrifolia*, likely as species of *Grimmia*. Additional bryophytes are expected to occur onsite, particularly within the western half of the property, during the spring season when sufficient precipitation has fallen to stimulate growth.

Fungus Flora

One (1) Agaricales (gilled mushrooms) species of fungus was observed onsite, in SA2, likely a species of *Clitocybe*. While fungi are not actually plants, they are treated here under the Flora section. Numerous species of fungi are expected to occur onsite; however, most species occur either underground or in decaying wood of plants and only detectable or identifiable when their fruiting bodies (i.e. mushroom) emerges to disperse spores.

Plants observed onsite are listed as Appendix A, Plants Observed at the Project Site.

Additional field surveys during the spring and early summer months are required to more fully document and understand the flora of the project site.

Fauna

The fauna (wildlife) of the project consists of animals occurring naturally onsite. Animals (wildlife) consist of invertebrates (e.g. mollusks, insects, spiders), amphibians, reptiles, fishes, birds, and mammals.

Three (3) reptile species, ten (10) bird species, eight (8) mammal species, and eight (8) invertebrate species were observed or detected during the DMEC survey. Many more species are expected to occur onsite but where not detected during the fall season.

Wildlife observed or reported onsite are listed as Appendix B, Wildlife Observed at the Project Site.

Left: Orb weaver spider. Right: European Garden Snail (Helix aspersa).

Left: Lagomorph (rabbit) scat. Right: Coyote scat.

Left: Long-eared Woodrat nest. Right: Two-pointed buck Mule Deer skull.

Endangered, Threatened, Rare, and Locally Important Species and Nests (Initial Study Checklist A & E)

Endangered, threatened, rare, or locally important species were found and are expected to occur within the survey area(s).

Special-status Species Summary

Definitions

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife.

Special-status species are plants and animals that are at least one of the following:

Listed as Endangered or Threatened under Federal or California Endangered Species Acts,

Listed as Rare under the California Native Plant Protection Act, or

Considered rare (but not formally listed) by resource agencies, professional organizations (e.g. Audubon Society, California Native Plant Society [CNPS], The Wildlife Society), and the scientific community.

Listed species are those taxa that are formally listed as Endangered or Threatened by the federal government (e.g. USFWS), pursuant to the Federal Endangered Species Act (ESA) or as Endangered, Threatened, or Tare (for plants only) by the State of California (i.e. California Fish and Game Commission), pursuant to the California Endangered Species Act (CESA) or the California Native Plant Protection Act, or those formally adopted by a local (e.g. county or city

government) agency as of local concern or rare, or similar status. Special-status species are defined in Table 2, Definitions of Special-status Species.

Table 2. Definitions of Special-status Species

o Plants and animals legally protected under the California and Federal Endangered Species Acts or under other regulations.	
o Plants and animals considered sufficiently rare by the scientific community to qualify for such listing; or	
o Plants and animals considered to be sensitive because they are unique, declining regionally or locally, or are at the extent of their natural range.	
Special-Status Plant Species	**Special-Status Animal Species**
o Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in *Federal Register* for proposed species). o Plants that are Category 1 or 2 candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (55 CFR 6184, February 21, 1990). o Plants that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, Section 15380). o Plants considered by CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS 2001). o Plants listed by CNPS as plants needing more information and plants of limited distribution (Lists 3 & 4 in CNPS 2001). o Plants listed by CNPS as locally rare (Lake 2004, Magney 2011, Wilken 2007). o Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5). o Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.). o Plants considered sensitive by other federal agencies (i.e. U.S. Forest Service, Bureau of Land Management) or state and local agencies or jurisdictions. o Plants considered sensitive or unique by the scientific community; occurs at natural range limits (*State CEQA Guidelines*, Appendix G).	o Animals listed/proposed for listing as threatened/endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in *Federal Register* for proposed species). o Animals that are Category 1 or 2 candidates for possible future listing as threatened or endangered under Federal Endangered Species Act (54 CFR 554). o Animals that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, Section 15380). o Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5). o Animal species of special concern (SSC) to the CDFG. o Animal species that are fully protected in California (California Fish & Game Code, Sections 3511 [birds], 4700 [mammals], 5050 [reptiles, amphibians]). o Animals considered rare or sensitive locally by a local agency or scientific community (*State CEQA Guidelines*, Appendix G)

The CNPS' *Inventory of Rare and Endangered Plants of California* (CNPS 2001, 2012) categorizes rare California plants into one of five ranks (1A, 1B, 2, 3, and 4) representing five levels of species status, one of which is assigned to a sensitive species to indicate its status of rarity or endangerment and distribution. Most taxa also receive a threat code extension following the Rank (e.g. 1B.1, 2.3), which replaces the R-E-D Code previously used by CNPS. Table 3, California Native Plant Society Rare Plant Ranks, provides a definition for each rank code

number, and Table 4, California Native Plant Society Rank Threat Code Extensions, defines the CNPS Rank Threat Code Extensions that indicates the level of endangerment within California.

Table 3. California Native Plant Society Rare Plant Ranks (CNPS List)

CNPS Rank	Definition
1A	Presumed Extinct in California
1B	Rare, Threatened, or Endangered in California and elsewhere
2	Rare, Threatened, or Endangered in California, but more common elsewhere
3	Need more information (a Review List)
4	Plants of Limited Distribution (a Watch List)

Table 4. California Native Plant Society Rank Threat Code Extensions

CNPS Threat Code Extension	Definition
x.1	Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
x.2	Fairly endangered in California (20-80% occurrences threatened)
x.3	Not very endangered in California (<20% of occurrences threatened)

The California Natural Diversity Database (CNDDB) Element Ranking system (CNDDB 2011, 2012) provides a numeric global and state-ranking system for all special-status species tracked by the CNDDB. The global rank (G-rank) is a reflection of the overall condition of an element (species or natural community) throughout its global range. The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank. This Element Ranking system is defined below in Table 5, California Natural Diversity Database Element Ranking System.

CNDDB SEARCH RESULTS

This section addresses the special-status biological resources observed, reported, or having the potential to occur on the project site. These resources include plant and wildlife species that have been afforded special-status and/or recognition by federal and state resource agencies, as well as private conservation organizations. In general, the principal reason an individual taxon (i.e. species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss.

Table 5. California Natural Diversity Database Element Ranking System

Global Ranking (G)	
G1	Less than 6 viable element occurrences (pops for species), OR less than 1,000 individuals, OR <809.4 hectares (ha) (2,000 acres [ac]).
G2	6 to 20 element occurrences OR 809.4 to 4,047 ha (2,000 to 10,000 ac).
G3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac).
G4	Apparently secure; rank lower than G3, factors exist to cause some concern (i.e. there is some threat, or somewhat narrow habitat).
G5	Population, or stand, demonstrably secure to ineradicable due to being commonly found in the world.
GH	All sites are **historic**; the element has not been seen for at least 20 years, but suitable habitat still exists.
GX	All sites are **extirpated;** this element is extinct in the wild.
GXC	Extinct in the wild; exists in cultivation.
G1Q	The element is very rare, but there is a taxonomic question associated with it.
Subspecies Level: Subspecies receive a **T-rank** attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. **For example:** *Chorizanthe robusta* var. *hartwegii* is ranked G2T1. The G-rank refers to the whole species range (*Chorizanthe robusta*), whereas the T-rank refers only to the global condition of the variety (var. *hartwegii*).	
State Ranking (S)	
S1	Less than 6 element occurrences OR less than 1,000 individuals OR less than 809.4 ha (2,000 ac). S1.1 = very threatened S1.2 = threatened S1.3 = no current threats known
S2	6 to 20 element occurrences OR 3,000 individuals OR 809.4 to 4,047 ha (2,000 to 10,000 ac). S2.1 = very threatened S2.2 = threatened S2.3 = no current threats known..
S3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac). S3.1 = very threatened S3.2 = threatened S3.3 = no current threats known
S4	Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern (i.e. there is some threat, or somewhat narrow habitat). NO THREAT RANK.
S5	Demonstrably secure to ineradicable in California. NO THREAT RANK.
SH	All California sites are **historic**; the element has not been seen for at least 20 years, but suitable habitat still exists.
SX	All California sites are **extirpated;** this element is extinct in the wild.
Notes	
1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take an aerial view when ranking sensitive elements rather than simply counting element occurrences.	
2. Uncertainty about the rank of an element is expressed in two major ways: by expressing the rank as a range of values (e.g. S2S3 means the rank is somewhere between S2 and S3), and by adding a ? to the rank (e.g. S2?). This represents more certainty than S2S3, but less than S2. (CNDDB 2011, 2012.)	

DMEC conducted a search of CDFG's CNDDB RareFind4 (CNDDB 2012) for the Lompoc California USGS Quadrangle (in which the project site is found), and for the five surrounding quadrangles. DMEC conducted this database search to account for special-status species tracked by CNDDB in the area and with potential to occur at the project site. Forty-four (44) special-status elements were reported by CNDDB, including twenty-one (21) plant species, eighteen (18) wildlife species, and five (5) habitats. The CNDDB identified two special-status plant species as present onsite: *Arctostaphylos purissima* and *A. rudis*. It also mapped American Badger as present onsite. Central Maritime Chaparral was mapped onsite as a sensitive habitat type. The CNDDB results are not mapped here since these elements covered the entire project site parcels.

DMEC also conducted a search of CNPS's *Inventory of Rare and Endangered Plants of California* (CNPS 2001, 2012) to account for CNPS-listed plants not tracked on the CNDDB (2009) database with potential to occur in the vicinity of the proposed project site. The CNDDB Special Animals List (CNDDB 2011) was also referenced to account for other listed animal species.

Special-status Plants

A total of twenty-two (22) special-status plant species tracked by CNDDB are known or reported in the vicinity of the project site and have the potential to occur onsite. Table 6, Special-status Plants Observed and Potentially Occurring on Queen of Angels Property, summarizes the CNDDB reports for the 21 special-status plant species tracked for the quads, and provides each species' scientific and common names, status, habitat requirements, and likelihood of occurrence. Figure 5, Map of Special-status Plant Species Onsite, illustrates the locations of the six special-status plant species observed onsite during the October and December 2012 field surveys.

Table 6. Special-status Plants Observed and Potentially Present on Queen of Angels Property

Scientific Name	Common Name	Species Status[7]					Habitat Requirements	Likelihood of Occurrence[8]
		G-Rank[9]	S-Rank[10]	Federal Listing[11]	State Listing	CNPS List/ Local Status[12]		
Agrostis hooveri	Hoover's Bent Grass	G2	S2.2	-	-	1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, and valley and foothill grassland usually in sandy soils.	Possible
Ancistrocarphus keilii	Santa Ynez Groundstar	G1	S1	-	-	1B.1	Sandy soils in chaparral habitat adjacent to oak woodlands.	Possible
Arctostaphylos crustacea ssp. *eastwoodiana*	Eastwood's Brittle-leaf Manzaita	G4T2?	S2?	-	-	1B.1	Sandy soils in maritime chaparral in Santa Barbara County	Possible

[7] For detailed special-status species definitions, refer to Tables 2 through 5 in the Methods Section.

[8] Likelihood of occurrence based on species' habitat requirements and the presence of required habitat in the project site.

Present = Species was directly observed during DMEC's October 11, 2012 survey.

Possible = Marginal required habitat exists onsite, and/or required habitat exists in surrounding areas.

Unlikely = Required habitat does not exist at the project site nor does it exist nearby.

Not Present = Required habitat is completely absent and there is no possibility that the species exits at the project site.

[9] Ranking in parentheses are suggested ranking when NatureServe has not yet established a ranking.

G1 or S1 = Critically Imperiled Globally or Subnationally (state).

G2 or S2 = Imperiled Globally or Subnationally (state).

G3 or S3 = Vulnerable to extirpation or extinction Globally or Subnationally (state).

G4 or S4 = Apparently secure; factors exist to cause some concern. Not a threat rank.

G5 or S5 = Demonstrably secure to ineradicable due to being commonly found Globally or Subnationally (state). Not a threat rank.

[10] SNR= California (State) Not Ranked

[11] E = Endangered; T = Threatened; R = Rare; C = Candidate.

Scientific Name	Common Name	Species Status[7]					Habitat Requirements	Likelihood of Occurrence[8]
		G-Rank[9]	S-Rank[10]	Federal Listing[11]	State Listing	CNPS List/ Local Status[12]		
Arctostaphylos purissima	La Purisima Manzanita	G2?	S2?	-	-	1B.1	Sandstone soils in coastal chaparral. Two plants found in SA2.	Present
Arctostaphylos rudis	Sand Mesa Manzanita	G2	S2.2	-	-	1B.2	Sandy soils in maritime chaparral and coastal scrub. Several plants found, 2 in SA1 and many in SA2.	Present
Atriplex coulteri	Coulter's Saltbush	G2	S2	-	-	1B.2	Alkaline conditions in coastal scrub habitats.	Unlikely
Calochortus fimbriatus	Late-flowered Mariposa-lily	G3G4	S2.2	-	-	1B.2	Dry coast scrub, open woodlands, and chaparral.	Unlikely
Calycadenia vilosa	Dwarf Calycadenia	G2	S2.1	-	-	1B.1	Rocky or fine soils in chaparral and foothill grassland.	Unlikely
Ceanothus cuneatus var. *fascicularis*	Lompoc Ceanothus	G5T3	S3.2	-	-	4.2	Sandy soils in maritime chaparral in Santa Barbara County. Burton Mesa Chaparral.	Present
Chorizanthe rectispina	Straight-awned Spineflower	G1	S1	-	-	1B.3	Chaparral and coastal scrub habitats, frequently in disturbed soils.	Possible
Cladium californicum	California Saw-grass	G4	S2.2	-	-	2.2	Freshwater marshes, seeps, and alkali marshes.	Not Present
Cordylanthus rigidus ssp. *littoralis*	Seaside Bird's-beak	G5T2	S2	-	E	1B.1	Sandy soils in maritime chaparral, coastal scrub, dunes, and closed-coned coniferous forests.	Not Present
Deinandra increscens ssp. *villosa*	Gaviota Tarplant	G4G5T2	S2	E	E	1B.1	Coastal scrub, foothill grasslands, and coastal bluff habitats.	Unlikely
Delphinium parryi ssp. *blochmaniae*	Dune Larkspur	G4T2	S2.2	-	-	1B.2	Volcanic soils in maritime chaparral and coastal dune habitats.	Unlikely

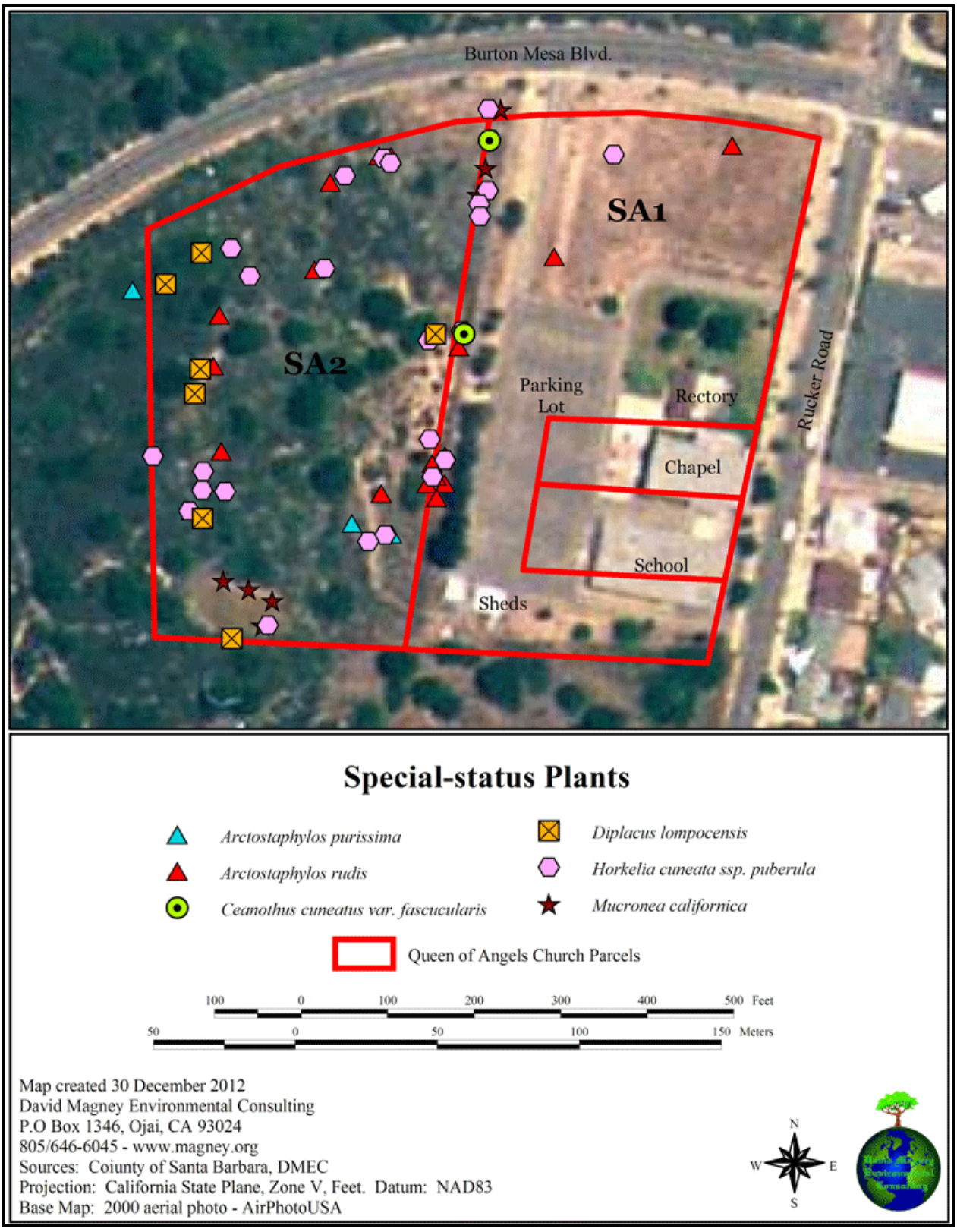
Scientific Name	Common Name	Species Status[7]					Habitat Requirements	Likelihood of Occurrence[8]
		G-Rank[9]	S-Rank[10]	Federal Listing[11]	State Listing	CNPS List/ Local Status[12]		
Diplacus lompocensis	Lompoc Bush Monkeyflower	G2Q[13]	S2	-	-	(1B.3)[14]	Chaparral and coastal scrub. One plant found in SA2.	Present
Horkelia cuneata var. *puberula*	Mesa Horkelia	G4T2	S2.1	-	-	1B.1	Sandy soils in chaparral, coastal scrub, and foothill woodland. One plant found in SA1. Numerous plants found SA2.	Present
Horkelia cuneata var. *sericea*	Kellogg's Horkelia	G4T1	S1.1	-	-	1B.1	Sandy soils in maritime chaparral, coastal scrub, and closed-coned coniferous forests	Possible
Layia heterotricha	Pale-yellow Layia	G2	S2	-	-	1B.1	Alkali or clay soils in coastal scrub, pine and juniper woodland, and valley and foothill grasslands.	Unlikely
Lepidium virginicum var. *robinsonii*	Robinson's Pepper-grass	G5T3	S3	-	-	1B.2	Chaparral and coastal scrub.	Possible
Lonicera subspicata var. *subspicata*	Santa Barbara Honeysuckle	G5T2	S2	-	-	1B.2	Chaparral and coastal scrub.	Possible
Mucronea californcia	California Spineflower	G3	S3	-	-	4.2	Openings in chaparral and coastal scrub in sandy soils. Numerous plants found in SA2.	Present
Mimulus fremontii var. *vandenbergensis*	Vandenberg Monkeyflower	G3G5T1	S1	C	-	1B.1	Disturbed sandy soils in chaparral, coastal scrub, and coastal dune habitats.	Possible

[13] NatureServe. 2012. NatureServe Explorer: An Online Encyclopedia of Life – *Diplacus lompocensis* McMinn. Version 7.1 (2 February 2009, last updated July 2012). www.natureserve.org

[14] CNPS status in parentheses are those suggested by DMEC for taxa not yet assessed by CNPS but for which they meet rarity ranking criteria.

Scientific Name	Common Name	Species Status[7]					Habitat Requirements	Likelihood of Occurrence[8]
		G-Rank[9]	S-Rank[10]	Federal Listing[11]	State Listing	CNPS List/ Local Status[12]		
Scrophularia atrata	Black-flowered Figwort	G2	S2.2	-	-	1B.2	Sandy soils in maritime chaparral, coastal scrub, closed-coned coniferous forests, and riparian scrub.	Possible
Senecio aphanactis	Chaparral Ragwort	G3?	S1.2	-	-	2.2	Coastal scrub and alkali flats.	Unlikely

Figure 5. Map of Special-status Plant Species Onsite

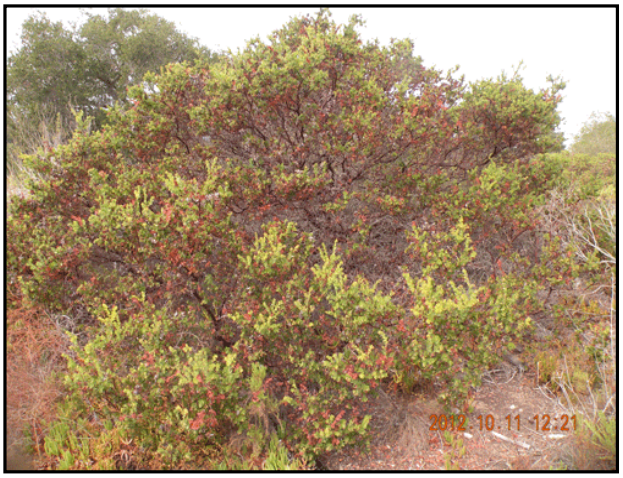


Special-status Plant Species Descriptions

Below are brief descriptions of each of the six special-status plant species found onsite: *Arctostaphylos purissima, Arctostaphylos rudis, Ceanothus cuneatus* var. *fasciculatus, Diplacus lompocensis, Horkelia cuneata* ssp. *puberula*, and *Mucronea californica.*

ARCTOSTAPHYLOS PURISSIMA

Arctostaphylos purissima P.V. Wells, La Purisima Manazita, is an erect, evergreen shrub in the Heath Family (Ericaceae). It has white flowers that bloom from January through March. *Arctostaphylos purissima* can grow to 1 to 4 meters tall and has spreading clasping, overlapping leaves with long white hairs on the young twigs. It has dense, spheric inflorescences and glabrous fruits that turn reddish brown when mature. This species is included in the CNPS Inventory of Rare and Endangered Plants on rank 1B.1 (rare, threatened, or endangered in CA and elsewhere). It is endemic to California and is restricted in distribution to western Santa Barbara County. *Arctostaphylos purissima* occurs in chaparral habitats on sandstone and sandy soils.



Two mature shrubs of *Arctostaphylos purissima* were found within SA2. The locations they were observed onsite are shown on Figure 5.

ARCTOSTAPHYLOS RUDIS

Arctostaphylos rudis Jeps. & Wiesl., Sand Mesa Manzanita, is an erect, evergreen shrub in the Heath Family (Ericaceae). It can grow to 1 to 2 meters tall and has elliptic, bright green, shiny leaves that are ciliate when young. *Arctostaphylos rudis* has dense, inflorescences with white flowers on spheric racemes that bloom from November to February, and glabrous fruits. It occurs in chaparral habitats on sandstone soils. *Arctostaphylos rudis* is endemic to California and is restricted in distribution to southwestern San Luis Obispo County and northwestern Santa Barbara County. This species is included in the CNPS Inventory of Rare and Endangered Plants on rank 1B.2 (rare, threatened, or endangered in CA and elsewhere).

The locations *Arctostaphylos rudis* were observed onsite are shown on Figure 5.

CEANOTHUS CUNEATUS VAR. FASCICULARIS

Ceanothus cuneatus var. *fascicularis* (McMinn) Hoover, Lompoc Ceanothus, is an evergreen shrub in the Buckthorn Family (Rhamnaceae). It has small, obovate, thick, leaves with entire margins, somewhat clustered together long the stems, and has white to pale blue flowers, which bloom from February to April. *Ceanothus cuneatus* var. *fasciculatus* can reach 6-15 dm in height and has clustered leaves and blue flowers. It is endemic to California (southwestern San Luis

Obispo County and western Santa Barbara County) and may be found chaparral and coastal mesas, between 5 and 400 m elevation. *Ceanothus cuneatus* var. *fasciculatus* is included in the CNPS Inventory of Rare and Endangered Plants on rank 4.2. The locations *Ceanothus cuneatus* var. *fascicularis* were observed onsite are shown on Figure 5.

DIPLACUS LOMPOCENSIS

Diplacus lompocensis McMinn [*Mimulus aurantiacus* var. *lompocensis*, *Diplacus aurantiacus* var. *lompocensis*], Lompoc Monkeyflower, is a shrub in the Lopseed Family (Phrymaceae). It has glabrous leaves that may be sticky and ovoid fruits, and pale salmon-colored flowers that bloom from March to August. *Diplacus lompocensis* is native to California and may be found in coastal sage scrub and (Burton Mesa) chaparral. *Diplacus lompocensis* has only recently been re-recognized as a unique species and has not yet been placed on any CNPS rarity ranking; however, it meets the criteria for inclusion on rank 1B since it is restricted to western and southern Santa Barbara County and southwestern San Luis Obispo County (Tulig & Nesom 2012). NatureServe (2012) has assigned it a Rarity Ranking of G2Q[15]. The location *Diplacus lompocensis* was observed onsite is shown on Figure 5.

[15] NatureServe. 2012. NatureServe Explorer: An Online Encyclopedia of Life – *Diplacus lompocensis* McMinn. Version 7.1 (2 February 2009, last updated July 2012). www.natureserve.org

HORKELIA CUNEATA SSP. PUBERULA

Horkelia cuneata ssp. *puberula* (Rydb.) Ertter & Reveal, Mesa Horkelia, is a spreading/clumping perennial herb with glandular leaves that is a member of the Rose Family (Rosaceae). It has open inflorescences with many flowers with white, narrow petals that bloom from February to July. *Horkelia cuneata* ssp. *puberula* is endemic to California and may be found in maritime chaparral, cismontane woodland, and coastal scrub on sandy or gravelly soils, but has been extirpated from many historic occurrences. *Horkelia cuneata* ssp. *puberula* is included in the CNPS Inventory of Rare and Endangered Plants on rank 1B.1 (rare, threatened, or endangered in CA and elsewhere). The locations *Horkelia cuneata* var. *puberula* were observed onsite are shown on Figure 5.

MUCRONEA CALIFORNICA

Mucronea californica Benth., California Spineflower, is a low-growing, spiny, red-stemmed, delicate annual herb in the Knotweed Family (Polygonaceae). It is 5-30 cm in size and has inflorescences in bracts. *Mucronea californica* blooms from March to July. It is endemic to California and may be found in coastal strand, chaparral, foothill woodland, coastal sage scrub, and valley grassland. *Mucronea californica* is included in the CNPS Inventory of Rare and Endangered Plants on list 4.2 (limited distribution). The locations *Mucronea californica* were observed onsite are shown on Figure 5.

Special-status Lichen Species Descriptions

Several lichen species are considered rare in California, with at last two species occurring in sandy substrates in the Morro Bay area, which may occur in the Lompoc area as well: *Cladonia firma* and *Sulcaria badia*. Neither species was observed onsite. One species of lichen found onsite, *Hypogymnia heterophylla*, is considered rare in southern California, but more common in northern California. Several of the lichens observed onsite have rarely been collected from Santa Barbara County and may represent locally rare species.

HYPOGYMNIA HETEROPHYLLA

Hypogymnia heterophylla L. Pike, Seaside Tube Lichen, is a fruticose lichen and a member of the Parmeliaceae. The thallus is erect or appressed, up to 9 (-15) cm broad, with a cartilaginous texture. The thallus branching is variable, budding present and lobes separate to centrally contiguous, 1-3 (-4) mm wide, often black bordered. The thallus is often perforate; holes usually developing slowly so that large holes are mainly axillary and the lobe tips have only pinholes upper surface: white to greenish gray, often dark mottled, smooth to rugose. Soredia and isidia are lacking. The thallus lobules are sparse or lacking and the medulla is hollow, with the ceiling of cavity dark, floor of cavity dark lower surface black, sparsely perforate. Apothecia are common, substipitate to stipitate, up to 10 (-15) mm in diameter, with a urn- or funnel-shaped, hollow, stipe. The apothecia disc is brown. (Nash et al. 2001.)

Hypogymnia heterophylla is typically found on bark of conifers, less often on hardwoods. It ranges along the Pacific coast of North America, southern British Columbia to central California, always near the coast in southern California; with rare disjuncts near the coast, south to Santa Barbara County and Santa Cruz Island. This occurrence represents the only vouchered collection from mainland Santa Barbara County. It has been collected from Santa Cruz and Santa Rosa Islands, and from the near San Luis Obispo in San Luis Obispo County[16]. (Nash et al. 2001.)

At the project site, it was found on the bark of *Adenostoma fasciculatum* and *Ceanothus cuneatus* var. *fascicularis*.

[16] Consortium of North American Lichen Herbaria - http://lichenportal.org/portal/taxa/index.php?taxon=54403.

Special-status Wildlife

A total of twelve (12) special-status wildlife species tracked by CNDDB are known or reported in the vicinity of the project site and have the potential to occur onsite. Table 7, Special-status Wildlife Potentially Present at the Queen of Angels Property, summarizes the CNDDB reports for the 12 special-status wildlife species tracked for the six quads, and provides each species' scientific and common names, status, habitat requirements, and likelihood of occurrence.

Also, all raptors, raptor nests (active or inactive), and other active bird nests are protected under Fish and Game Code Section 3503.

DMEC, through the Sespe Institute, Inc., maintains a statewide GIS database of all terrestrial gastropods[17]. Based on DMEC's research, at least one native terrestrial snail may possibly occur onsite, *Helminthoglypta phlyctaena* Bartsch, Zaca Shoulderband Snail, which is endemic to western Ventura County and Santa Barbara County. It is typically found in chaparral and coastal scrub habitats. NatureServe has given it a rarity ranking of G1G2, Critically Imperiled; however, the CNDDB has yet to add it to their list of sensitive wildlife species of California. The nearest known record for this species is on Harris Grade, 3.1 miles due North of the project site. Suitable habitat for *Helminthoglypta phlyctaena* is present within SA2.

Focused field surveys are required during the winter and spring months to determine the presence of the 13 special-status wildlife species expected to occur onsite, with habitat requirements summarized in Table 7.

[17] Sespe Institute, Inc. – www.sespeinstitute.com

Table 7. Special-status Wildlife Species Potentially Present at the Queen of Angels Property

Scientific Name	Common Name	Species Status[18]					Likelihood of Occurrence[19]	Likelihood of Occurrence[20]
		G-Rank	S-Rank	Federal Listing[21]	State Listing	CDFG[22]		
Accipiter cooperii	Cooper's Hawk	G5	S3	-	-	WL	(Nesting) woodland, chiefly of open, interrupted or marginal. An uncommon year-round resident in so. Calif. Prefers woodland habitats but can also be found in virtually any habitat during migration. Typical breeding habitat in so. Calif. consists of riparian and oak woodlands, but also nests in ornamental woodlands provided by parks.	Possible
Accipiter striatus	Sharp-shined Hawk					SC	Nesting) woodland, chiefly of open, interrupted or marginal. An uncommon year-round resident in so. Calif. Prefers woodland habitats but can also be found in virtually any habitat during migration. Typical breeding habitat in so. Calif. consists of riparian and oak woodlands, but also nests in ornamental woodlands provided by parks.	Possible
Aimophila ruficeps canescens	Southern California Rufous-crowned Sparrow	G5T2T4	S2S3	-	-	SC	Resident in southern California Coastal Scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Possible

[18] For special-status species definitions, refer to Tables 2 through 5 in the Methods Section.

[19] Likelihood of occurrence based on species' habitat requirements and the presence of required habitat in the project site.

Possible = Marginal required habitat exists onsite, and/or required habitat exists in surrounding areas.
Unlikely = Required habitat does not exist at the project site nor does it exist nearby.

Not Present = Required habitat is completely absent and there is no possibility that the species exits at the project site.

[20] Likelihood of occurrence based on species' habitat requirements and the presence of required habitat in the project site.

Possible = Marginal required habitat exists onsite, and/or required habitat exists in surrounding areas.
Unlikely = Required habitat does not exist at the project site nor does it exist nearby.

Not Present = Required habitat is completely absent and there is no possibility that the species exits at the project site.

[21] E = Endangered; T = Threatened; C = Candidate.

[22] SC = A California Department of Fish and Game (CDFG) "Species of Special Concern". FP = CDFG Fully Protected Species. WL = CDFG Watch List.

Scientific Name	Common Name	Species Status[18]					Likelihood of Occurrence[19]	Likelihood of Occurrence[20]
		G-Rank	S-Rank	Federal Listing[21]	State Listing	CDFG[22]		
Ambystoma californiense	California Tiger Salamander	G2G3	S2S3	T	T	SC	Occurs in grasslands, oak savanna, and mixed woodland adjacent to ponds, vernal pools, and wetlands where water levels are adequate to sustain their eggs and larval stages.	Unlikely
Anniella pulchra pulchra	Silvery Legless Lizard	G3G4T3T4Q	S3	-	-	SC	Occurs in moist soil in beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces.	Possible
Antrozous pallidus	Pallid Bat	G5	S3	-	-	SC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Unlikely
Aspidoscelis tigris stejnegeri	Coastal Western Whiptail	G5T3T4	S2S3	-	-	-	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Possible
Athene cunicularia	Burrowing Owl	G4	S2	-	-	FP	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California Ground Squirrel.	Unlikely
Buteo regalis	Ferruginous Hawk	G4	S3S4	-	-	WL	(Wintering) Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of Pinyon-Juniper habitats. Mostly eats lagomorphs, California Ground Squirrel, and mice. Population trends may follow lagomorph population cycles.	Unlikely
Danaus plexippus	Monarch Butterfly	G5	S3	-	-	-	Monarch butterfly roosts may occur in Eucalyptus groves near the coast.	Unlikely
Elanus leucurus	White-tailed Kite	G5	S3	-	-	FP	(Nesting) Rolling foothills/valley margins w/scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Unlikely

Scientific Name	Common Name	Species Status[18]					Likelihood of Occurrence[19]	Likelihood of Occurrence[20]
		G-Rank	S-Rank	Federal Listing[21]	State Listing	CDFG[22]		
Emys marmorata	Western Pond Turtle	G3G4	S3	-	-	SC	Occurs in riparian areas and wetland with permanent water.	Unlikely
Eremophila alpestris actia	California Horned Lark	G5T3Q	S3	-	-	SC	Coastal regions, chiefly from Sonoma to San Diego Co. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Unlikely
Eucyclogobius newberryi	Tidewater Goby	G3	S2S3	E	-	SC	Occurs in brackish lagoons separated from the ocean by sandbars.	Not Present
Helminthoglypta phlyctaena	Zaca Shoulderband Snail	G1G2	SNR	-	-	-	Occurs in chaparral and coastal sage scrub in Santa Barbara and Ventura Counties (endemic).	Possible
Lasionycteris noctivagans	Silver-haired Bat	G5	S3S4	-	-	-	Occur in coniferous and deciduous forests.	Unlikely
Lasiurus blossevillii	Western Red Bat	G5	S3?	-	-	SC	Lives in chaparral , coastal sage scrub, oak woodland, and grassland communities.	Possible
Lasiurus cinereus	Hoary Bat	G5	S4?	-	-	-	Lives in chaparral , coastal sage scrub, oak woodland, and grassland communities.	Possible
Myotis yumanensis	Yuma Myotis	G5	S4?	-	-	-	Occurs in open forests and woodlands with sources of water over which to feed.	Unlikely
Neotoma lepida ssp. *intermedia*	San Diego Desert Woodrat	G5T3?	S3?	-	-	SC	Coastal scrub of southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops and rocky cliffs & slopes.	Possible
Oncorhynchus mykiss irideus	Southern Steelhead	G5T2Q	S2	E	-	SC	Occurs in seasonally accessible rivers and streams. Needs sufficient flow of streams in order to spawn.	Not Present
Phrynosoma coronatum	Coast (California) Horned Lizard	G4G5	S3S4	-	-	SC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, & abundant supply of ants & other insects.	Possible
Rana draytonii	California Red-legged Frog	G4T2T3	S2S3	T	T	SC	Inhabits dense, shrubby or emergent riparian vegetation and still or slow-moving perennial and ephemeral water bodies that also serve as breeding sites.	Not Present
Salvadora hexalepis	Coast Patch-nosed Snake	G5T3	S2S3	-	-	SC	Occurs in chaparral coastal sage scrub habitats where	Possible

Scientific Name	Common Name	Species Status[18]					Likelihood of Occurrence[19]	Likelihood of Occurrence[20]
		G-Rank	S-Rank	Federal Listing[21]	State Listing	CDFG[22]		
virgultea							it can burrow in loose soils.	
Spea (=Scaphiopus) hammondii	Western Spadefoot	G3	S3	-	-	SC	Occurs primarily in grasslands, but can also in valley-foothill hardwood woodlands. Vernal pools for breeding, egg laying.	Not Present
Streptocephalus woottoni	Riverside Fairy Shrimp	G1	S1	E	-	-	Endemic to western Riverside, Orange, & San Diego Cos. in areas of tectonic swales/earth slump basins in grassland & California Coastal Scrub. Inhabit seasonally astatic pools filled by rains. Hatch in warm water later in the season.	Not Present
Taxidea taxus	American Badger	G5	S4	-	-	SC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils & open, uncultivated ground. Prey on burrowing rodents. Dig burrows.	Possible
Thamnophis hammondii	Two-striped Garter Snake	G3	S2	-	-	SC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft (2133.6 m) elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Unlikely
Trimerotropis occulens	Lompoc Grasshopper	GH	SH	-	-	-	Occurs in open areas on gravelly soil, likely in matrix of chaparral, coastal sage scrub, and grasslands.	Possible

Sensitive Habitats

Table 8, CNDDB Sensitive Habitats Observed at, and Known Near, the Queen of Angels Property, summarizes the CNDDB search for sensitive habitat types reported for the six quads surrounding and including the project site. Table 8 provides the habitat's name, status, and whether it was observed onsite. Central Maritime Chaparral was the only sensitive habitat found onsite.

Table 8. Sensitive Habitats Observed at, and Known Near, the Queen of Angels Property

Community Name	Species Status		Observed Onsite?
	Global Rank	State Rank	
Central Coast Arroyo Willow Riparian Forest	G3	S3.2	Not Observed
Central Maritime Chaparral (Burton Mesa Chaparral)	G2	S2.2	Observed
Southern California Steelhead Stream	G?	SNR	Not Observed
Southern Cottonwood Willow Riparian Forest	G3	S3.2	Not Observed
Southern Willow Scrub	G3	S2.1	Not Observed

3.3 WILDLIFE MOVEMENT AND CONNECTIVITY

Wildlife movement or connectivity features, or evidence thereof, were not found within the survey area(s).

DMEC finds that the project site functions as core habitat rather than as a linkage, corridor, route, chokepoint, or stepping stone corridor.

The project site exists within a matrix of maritime chaparral and *Quercus agrifolia* woodland and is not itself a connection between patches of habitat.

SECTION 4. IMPACT ASSESSMENT

The development of the project site (western parcel) would result in impacts to biological resources; however, there are currently no plans to develop the undeveloped portions of the property.

The project site is located in a highly sensitive biological resource area, which is the focus of CDFG through the establishment and management of the Burton Mesa Ecological Preserve, due to the high number of special-status plant and wildlife species, and unique habitats.

Special-status plant species were observed on the project site are typical for the adjacent Preserve, including: *Arctostaphylos purissima, Arctostaphylos rudis, Ceanothus cuneatus* var. *fasciculatus, Diplacus lompocensis, Horkelia cuneata* ssp. *puberula,* and *Mucronea californica*. Several other special-status plant species have the potential to occur (Table 6, Special-status Plant Species Observed and Potentially Present on Queen of Angels Property). One locally rare lichen species occurs onsite, *Hypogymnia heterophylla*. Development of the project site will need to avoid impacts to these special-status plant and lichen species.

Several special-status wildlife species have the potential to occur on the project site (Table 7, Special-status Wildlife Species Observed and Potentially Present on Queen of Angels Property). Development of the project site would need to avoid impacts to these special-status wildlife species.

Central Maritime Chaparral (Burton Mesa Chaparral) occurs extensively on the project site and is considered to be a special-status habitat by the CDFG. Development impacts to this habitat will need to be avoided or minimized to less-than-significant levels.

There is the potential habitat for nesting bird species to occur within the project site. Bird nesting typically occurs from February through August. Some bird species nest outside this period. In accordance with the Migratory Bird Treaty Act or California Fish and Game Code §3503 it is important that bird surveys are factored into the pre-construction planning timetable if construction is anticipated to occur during nesting season. If construction is anticipated to occur during nesting season then a qualified biologist shall survey the construction site prior to nesting season to identify any nests of birds that would be directly or indirectly affected by the construction activities. If nests were found prior to nesting season, then an additional survey two weeks prior to initiation of site disturbance would be required to further identify any nests that would be directly or indirectly affected by the construction activities. The intent of the supplemental surveys is to detect active or potentially active bird nests that will need to be protected while they are active.

There are no wetlands present on the project site so there will not be any wetland impacts by future construction.

Avoidance of development of habitats and vegetation on the western parcel is recommended due to its biological significance and sensitivity.

SECTION 5. ACKNOWLEDGEMENTS

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SECTION 6. CITATIONS

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APPENDICES

APPENDIX A – PLANT SPECIES OBSERVED ONSITE

APPENDIX B - WILDLIFE SPECIES OBSERVED ONSITE

APPENDIX A – PLANT SPECIES OBSERVED ONSITE

Scientific Name[23]	Common Name	Habit[24]	Family
Fungi			
Clitocybe cf. *glaucocana* or *tarda*	a Clitocybe Mushroom	F	Tricholomataceae
Lichens			
Buellia cf. *oidalea*	a Button Lichen	CrL	Physciaceae
Caloplaca sp.	a Firedot or Jewel Lichen	CrL	Caloplacaceae
Candelaria pacifica	Pacific Candleflame Lichen	FoL	Candelariaceae
Chrysothrix xanthina	Pacific Gold Dust Lichen	CrL	Chrysotrichaceae
Cladonia cf. *asahinae* or *nashii*	Pixie-cup Lichen	FoL	Cladoniaceae
Evernia prunastri	Oakmoss Lichen	FrL	Parmeliaceae
Flavoparmelia caperata	Common Greensheild Lichen	FoL	Parmeliaceae
Flavoparmelia flaventior	Speckled Greenshield Lichen	FoL	Parmeliaceae
Heterodermia cf. *erinacea*	Coastal Fringe Lichen	FoL	Physciaceae
Heterodermia leucomelaena	Elegant Fringe Lichen	FoL	Physciaceae
Hypogymnia heterophylla	**Seaside Tube Lichen**	FrL	Parmeliaceae
Hypogymnia imshaugii	Forked Tube Lichen	FrL	Parmeliaceae
Hypogymnia sp.1	a Tube Lichen	FrL	Parmeliaceae
Hypogymnia tubulosa	Powder-headed Tube Lichen	FrL	Parmeliaceae
Kaernefeltia merrillii	Flattened Thornbush Lichen	FrL	Parmeliaceae
Lecanora caesiorubella ssp. *merrillii*	Merrill's Frosted Rim Lichen	CrL	Lecanoraceae
Lecanora cf. *pacifica*	Pacific Rim Lichen	CrL	Lecanoraceae

[23] * = Introduced/naturalized plant species. + = Ornamental nonnative plant species. Scientific and common names follow the *Jepson Manual* (Baldwin et al. 2012) and *Flora of North America North of Mexico* (Flora of North America Editorial Committee 1993-2007). Lichen scientific and common names follow Esslinger (1999), Brodo et al. (2001), and Nash et al. (2001, 2004, 2007) as appropriate.

Bold type indicates special-status plant species.

(R)= Rare in Santa Barbara County; Checklist of Santa Barbara County Rare Plants (Wilken 2009)

CNPS Ranks - see Table 3. California Native Plant Society Rare Plants List (CNPS ranks).

[24] Habit definitions: AG = annual grass or graminoid; AH = annual herb; AV = annual vine; CL = crustose lichen; F = fungus; FoL = foliose lichen; FrL = fruticose lichen; HW = hornwort; LW = liverwort; M = moss; PF = perennial fern or fern ally; PG = perennial grass or graminoid; PH = perennial herb; PV = perennial vine; S= shrub; T = tree.

Scientific Name[23]	Common Name	Habit[24]	Family
Lepraria cf. *pacifica*	Pacific Coast Dust Lichen	CrL	Stereocaulaceae
Melanelia sp.	a Camouflage Lichen	FoL	Parmeliaceae
Niebla cephalota	Powdery Fog Lichen	FrL	Ramelinaceae
Ochrolechia cf. *subpallescens*	a Saucer Lichen	CrL	Pertusariaceae
Ochrolechia sp.1	a Saucer Lichen	CrL	Pertusariaceae
Parmelia sulcata	Hammered Shield Lichen	FoL	Parmeliaceae
Parmotrema arnoldii	Powdered Ruffle Lichen	FoL	Parmeliaceae
Parmotrema austrosinense	Unwiskered Ruffle Lichen	FoL	Parmeliaceae
Parmotrema [*chinense*] *perlatum*	Powdered Ruffle Lichen	FoL	Parmeliaceae
Parmotrema sp.1	a Ruffle Lichen	FoL	Parmeliaceae
Parmotrema sp.2	a Ruffle Lichen	FoL	Parmeliaceae
Physcia tenella ssp. *tenella*	Fringed Rosette Lichen	FoL	Physciaceae
Pyrrhospora quernea	Sulphured Crimson Dot Lichen	CrL	Lecanoraceae
Ramalina farinacea	Dotted Ramalina	FrL	Ramalinaceae
Ramalina leptocarpha	Western Strap Lichen	FrL	Ramalinaceae
Ramalina subleptocarpha	Slit-rimmed Ramalina	FrL	Ramalinaceae
Usnea fragilescens	Inflated Beard Lichen	FrL	Parmeliaceae
Usnea rubicunda	Red Beard Lichen	FrL	Parmeliaceae
Usnea spp.	a Beard Lichen	FrL	Parmeliaceae
Xanthoria candelaria	Shrubby Sunburst Lichen	CrL	Teloschistaceae
Xanthoria polycarpa	Pin-cushion Sunburst Lichen	CrL	Teloschistaceae
Bryophytes			
Grimmia sp.	Silver Moss	M	Grimmiaceae
Vascular Plants			
Adenostoma fasciculatum var. *fasciculatum*	Chamise	S	Rosaceae
Aloe nobilis +	Golden Toothed Aloe	S	Xanthorrhoeaceae
Arctostaphylos purissima	**La Purisima Manzanita**	S	Ericaceae
Arctostaphylos rudis	**Mesa Manzanita**	S	Ericaceae
Avena barbata *	Slender Wild Oat	AG	Poaceae

Scientific Name[23]	Common Name	Habit[24]	Family
Baccharis pilularis ssp. *consanguinea*	Coyote Brush	S	Asteraceae
Bromus diandrus ssp. *diandrus* *	Ripgut Grass	AG	Poaceae
Bromus hordeaceus *	Soft Chess	AG	Poaceae
Bromus madritensis ssp. *rubens* *	Red Brome	AG	Poaceae
Carpobrotus chilensis *	Seafig	PH	Aizoaceae
Carduus pycnocephalus *	Italian Thistle	AH	Asteraceae
Ceanothus cuneatus* var. *fascicularis	**Lompoc Ceanothus**	S	Rhamnaceae
Chenopodium album *	Lamb's Quarters	AH	Chenopodiaceae
Conyza canadensis	Common Horseweed	AH	Asteraceae
Corethrogyne filaginifolia var. *filaginifolia*	California Cudweed-aster	PH	Asteraceae
Croton californicus	California Croton	PH	Euphorbiaceae
Cupressus sempervirens +	Italian Cypress	T	Cupressaceae
Diplacus lompocensis	**Lompoc Bush Monkeyflower**	S	Phrymaceae
Drosanthemum floribundum *	Ice Plant	PH	Aizoaceae
Echium sp. +	Pride of Madera	S	Boraginaceae
Ericameria ericoides ssp. *echioides*	Mock Heather	S	Asteraceae
Erigeron foliolosum var. *foliolosum*	Slender Fleabane	PH	Asteraceae
Eriogonum sp.	an annual Buckwheat	AH	Polygonaceae
Erodium botrys *	Long-beaked Filaree	AH	Geraniaceae
Erodium cicutarium *	Redstem Filaree	AH	Geraniaceae
Frangula californica ssp. *californica*	California Coffeeberry	S	Rhamnaceae
Galium andrewsii ssp. *andrewsii*	Phlox-leaved Bedstraw	PH	Rubiaceae
Gazania linearis *	Treasure Flower	PH	Asteraceae
Hesperoyucca whipplei ssp. *whipplei*	Our Lord's Candle	S	Agavaceae
Heterotheca grandiflora	Telegraph Weed	PH	Asteraceae
Horkelia cuneata* var. *puberula	**Mesa Horkelia**	PH	Rosacae
Juniperus chinensis 'Pfitzer' +	Pfitzer Juniper	S	Cupressaceae
Juniperus chinensis 'Torulosa' +	Hollywood Juniper	S/T	Cupressaceae
Ligustrum vulgare +	Glossy Privet	S	Oleaceae

Scientific Name[23]	Common Name	Habit[24]	Family
Limonium sinuatum *	Wavyleaf Sea Lavender	PH	Plumbaginaceae
Mucronea californica	**California Spineflower**	AH	Polygonaceae
Opuntia ficus-indica +	Indian Fig	S	Cactaceae
Opuntia littoralis	Coastal Prickly Pear	S	Cactaceae
Pelargonium hortorum +	Garden Geranium	S	Gerianiaceae
Pinus radiata *+	Monterey Pine	T	Pinaceae
Plantago erecta	California Plantain	AH	Plantaginaceae
Plantago lanceolata *	English Plantain	PH	Plantaginaceae
Pseudognaphalium microcephalum	White Everlasting	B/PH	Asteraceae
Punica granatum *+	Pomegranate	T	Lythraceae
Pyracantha cf. *koidzumii* 'Santa Cruz'+	Santa Cruz Firethorn	S	Rosaceae
Quercus agrifolia var. *agrifolia*	Coast Live Oak	T	Fagaceae
Salvia columbariae	Chia	AH	Lamiaceae
Salvia mellifera	Black Sage	S	Lamiaceae
Senecio flaccidus var. *douglasii*	Shrubby Ragwort	S	Asteraceae
Stipa miliacea ssp. *miliacea* *	Smilo Grass	PG	Poaceae
Toxicodendron diversilobum	Western Poison Oak	S/V	Anacardiaceae
Ulmus sp. +	Elm	T	Ulmaceae
Washingtonia robusta *+	Mexican Fan Palm	T	Arecaceae

APPENDIX B – WILDLIFE SPECIES OBSERVED ONSITE

Scientific Name[25]	Common Name	Order and Family	Evidence
VERTEBRATES			
Reptiles – Class Reptilia			
Masticophis lateralis lateralis	California Striped Racer	Order Squamata: Family Colubridae	Observed
Sceloporous occidentalis	Western Fence Lizard	Order Squamata: Family Phrynosomatidae	Observed
Uta stansburiana elegans	California Side-blotched Lizard	Order Squamata: Family Phrynosomatidae	Observed
Birds – Class Aves			
Aphelocoma californica +	Western Scrub-jay	Order Passeriformes: Family Corvidae	Observed
Calypte anna +	Anna's Hummingbird	Order Apodiformes: Family Trochilidae	Observed
Cathartes aura +	Turkey Vulture	Order Ciconiiformes: Family Cathartidae	Observed
Chamaea fasciata	Wrentit	Order Passeriformes: Family Timaliidae	Observed
Corvus corax +	Common Raven	Order Passeriformes: Family Corvidae	Observed
Melospiza melodia +	Song Sparrow	Order Passeriformes: Family Embeziridae	Observed
Mimus polyglottos +	Northern Mockingbird	Order Passeriformes: Family Mimidae	Observed
Pipilo crissalis+	California Towhee	Order Passeriformes: Family Embeziridae	Observed
Psaltriparus minimus +	Common Bushtit	Order Passeriformes: Family Aegithalidae	Observed
Zenaida macroura +	Mourning Dove	Order Columbiformes: Family Columbidae	Observed
Mammals – Class Mammalia			
Canis latrans	Coyote	Order Carnivora: Family Canidae	Scat
Dipodomys heermanni	Agile Kangaroo Rat	Order Rodentia: Family Heteromyidae	Burrows, tracks
Neotoma fuscipes	Dusky-footed Woodrat	Order Rodentia: Family Muridae	Nests
Odocoileus hemionus	Mule Deer	Order Artiodactyla: Family Cervidae	Tracks
Spermophilus beecheyi	California Ground Squirrel	Order Rodentia: Family Sciuridae	Observed
Sylvilagus auduboni	Desert Cottontail	Order Lagomorpha: Family Leporidae	Scat
Sylvilagus bachmant	Brush Rabbit	Order Lagomorpha: Family Leporidae	Scat
Thomomys bottae	Botta's Pocket Gopher	Order Rodentia: Family Geomyidae	Burrows
INVERTEBRATES			
Gastropods – Class Gastropoda			
Helix aspersa *	European Garden Snail	Order Gastropoda: Family Helicidae	Observed
Arachnids – Class Arachnida			
Argiope aurantia	American Garden Spider	Order Araneae: Family Araneidae	Observed
Insects – Class Insecta			
*Apis mellifera**	European Honey Bee	Order Hymenoptera: Family Apidae	Observed
Unknown	Blue wasp	Order Hymenoptera	Observed
Unknown	Red ant	Order Hymenoptera: Family Formicidae	Observed
Danaus plexippus	Monarch Butterfly	Order Lepidoptera: Family Nymphalidae	Observed
*Pieris rapae**	Cabbage White Butterfly	Order Lepidoptera: Family Pieridae	Observed
Unknown	Grasshopper	Order Orthoptera	Observed

[25] An asterisk (*) indicates introduced, non-native species. (+) = Birds protected by the Migratory Bird Treaty Act.