
Biological Resources Assessment Report

SANTA MARGARITA QUARRY, SAN LUIS OBISPO COUNTY CALIFORNIA

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“As a County-approved biologist, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visit(s) associated with this report.”

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LIST OF ACRONYMS

Cal-IPC	California Invasive Plant Council
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CRLF	California red-legged frog
CSRL	California Soil Resources Laboratory
CUP	Conditional Use Permit
CWA	Clean Water Act
dbh	diameter at breast height
FESA	Federal Endangered Species Act
MBTA	Migratory Bird Treaty Act
NMFS	National Marine Fisheries Service
NRCS	National Resource Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High Water Mark
PCEs	Primary Constituent Elements
PRC	California Public Resources Code
RPA	Reclamation Plan Amendment
RWQCB	Regional Water Quality Control Board
SOD	Sudden Oak Death
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Service
WBWG	Western Bat Working Group
WRA	WRA, Inc.

EXECUTIVE SUMMARY

This report presents the results of a biological resources assessment conducted within the proposed Santa Margarita Quarry Extension Reclamation Plan Amendment Area (RPA Area), San Luis Obispo County, California. The RPA Area is comprised of 126.1 acres of an active quarry pit, associated processing facilities, and surrounding undeveloped land. Within the RPA Area, the proposed RPA Footprint is comprised of 94.5 acres, and represents the extent of current and proposed quarry extension ground disturbance. The RPA Footprint is surrounded by 31.6 acres of undisturbed buffer. The proposed project is the modification of an existing Conditional Use Permit (CUP) and RPA for an extension of the existing quarry operations into approximately 38.4 acres of undisturbed slopes to the west of the existing quarry pit (Figure 2). Extension of the quarry operations will occur in four discrete phases. No change in production capability or intensity is proposed beyond currently permitted levels. Reclamation of the RPA Footprint will occur when mining operations at the quarry cease.

The RPA Area was assessed for the (1) presence of special status species, (2) potential to support special status species; and (3) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. This report also contains an evaluation of potential impacts to special status species and sensitive biological resources that may occur as a result of the proposed quarry extension and potential mitigation measures to compensate for those impacts.

Biological communities within the proposed RPA Footprint include chaparral, oak woodland, ephemeral streams, riparian woodland, non-native annual grassland and disturbed areas including the active quarry pit and operational water holding features. Additional biological communities within the larger RPA Area include riparian woodland and perennial stream. An oak woodland assessment was performed within the RPA Area (WRA 2012b). Approximately 11.2 acres of oak woodland are present within the RPA Footprint. An additional 6.1 acres of oak woodland are present in the larger RPA Area, for a total of 17.3 acres of oak woodland under the regulation of California Public Resources Code (PRC) 21083.4. Loss of oak woodland habitat will be mitigated by establishing conservation easements, replanting oaks, contributing to an oak woodland conservation fund, or other methods developed by the County. Appropriate mitigation will be determined in consultation with the County during the application review process. There is opportunity for onsite oak woodland preservation and enhancement on adjacent parcels in the event that mitigation is called for.

A routine wetland delineation was performed within the RPA Area (WRA 2012a). One potentially jurisdictional ephemeral stream (0.08 acre, 1,395 linear feet) was observed in the proposed RPA Footprint. Additional potentially jurisdictional features within the larger RPA Area include a portion of the same ephemeral stream (0.01 acre, 169 linear feet) and a perennial stream, the Salinas River (5.7 acres, approximately 3,669 linear feet). These features likely meet the requirements for regulation by the U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB) under Section 404/401 of the Clean Water Act (CWA) and regulation by the California Department of Fish and Game (CDFG) under Section 1602 of California Fish and Game Code. Mitigation for loss of jurisdictional waters will be determined in coordination with the agencies.

Sixty-seven special status plant species are known to occur in the vicinity of the RPA Area. Of these, 20 species were determined to have a high or moderate potential to occur in the proposed RPA Footprint. Another four species have potential to occur within RPA Area outside of the proposed RPA Footprint. Protocol-level rare plant surveys were completed in portions of

the RPA Area in 2008. Surveys are being repeated in 2012. To date, no special status plant species have been observed in the RPA Area.

Fifty-three special status wildlife species are known to occur in the vicinity of the proposed RPA Footprint. Of these, one species, golden eagle is present and 13 have a high or moderate potential to occur in the RPA Footprint. Within the RPA Area, outside the proposed RPA Footprint, six additional special status species have a high or moderate potential to occur in the Salinas River and its associated habitat. Recommendations for avoiding impacts to these species consist primarily of work windows for roosting bats and breeding birds respectively, as well as pre-construction surveys and maintaining avoidance buffers as necessary. In addition, Critical Habitat for California red-legged frog (CRLF) and south central coast steelhead (steelhead) is present in the RPA Area; CRLF is not likely to be present. Informal consultation with USFWS and NMFS will be required; however, no mitigation for removal of Critical Habitat is required given that PCEs are not present in the areas of impact (Phillips, Jeff pers. comm.).

1.0 INTRODUCTION

On January 30 and 31, March 27, 2008 and October 21, 2011, WRA, Inc. (WRA) performed an assessment of biological resources at the Lehigh Hanson Santa Margarita Quarry Extension Area (RPA Area¹) near Santa Margarita, San Luis Obispo County, California (Figure 1). The purpose of the assessment was to gather information necessary to complete a review of biological resources for a proposed quarry operations extension quarry extension (quarry extension).

This report presents the results of the biological resources assessment within the RPA Area. The RPA Area is comprised of 126.1 acres of an active quarry pit, associated processing facilities, and surrounding undeveloped land. Within the RPA Area, the proposed RPA Footprint is comprised of 94.5 acres, and represents the extent of current and proposed quarry extension ground disturbance (Figure 2). The undeveloped land surrounding the RPA Footprint contains mixed chaparral, oak woodland, and riparian habitats, including a portion of the Salinas River. Land use surrounding the RPA Area is mixed rural residential and open space. Elevations within the RPA Area range from approximately 1,050 feet at the highest ridgetop to 880 feet at the bottom of the existing quarry pit.

This report describes the results of the site visit, which assessed the RPA Area for the (1) presence of special status species, (2) potential to support special status species; and (3) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. This report also contains an evaluation of potential impacts to special status species and sensitive biological resources that may occur as a result of the proposed quarry extension and potential mitigation measures to compensate for those impacts.

A biological resources assessment provides general information on the potential presence of sensitive species and habitats. The biological resources assessment is not an official protocol level survey for listed species that may be required for quarry extension approval by local, state, or federal agencies. Depending upon the quarry extension design and description, additional protocol level surveys may be required for some species and habitats. This assessment is based on information available at the time of the study and on site conditions that were observed on the dates of the site visits.

This assessment contains additional summaries of biological studies and surveys performed following the initial site assessment in 2008. Additional studies include:

- *Preliminary Determination of Waters of the U.S., Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012a);
- *Oak Woodland Assessment Report, Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012b); and
- *Rare Plant Survey Report, Santa Margarita Quarry, San Luis Obispo, California* (WRA 2012c).

¹ The RPA Area as discussed in this report is equivalent to the RPA Boundary as discussed in the *Reclamation Plan Amendment* (EnviroMine 2012).

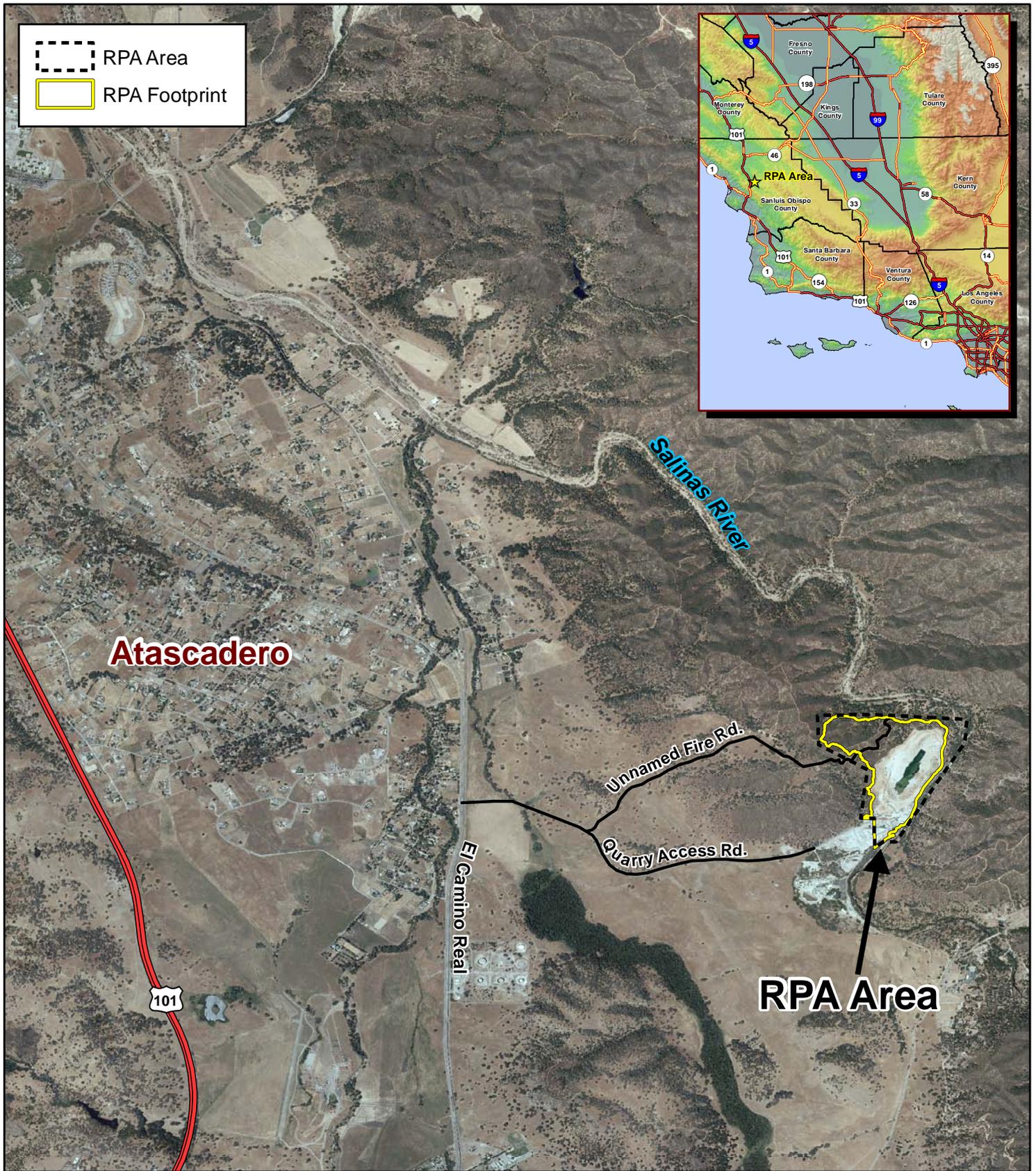
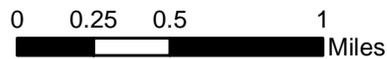


Figure 1. RPA Location Map

Santa Margarita Quarry
 San Luis Obispo County, California



Date: April 2012
 Aerial: 2010 NAIP
 Map By: Michael Rochelle

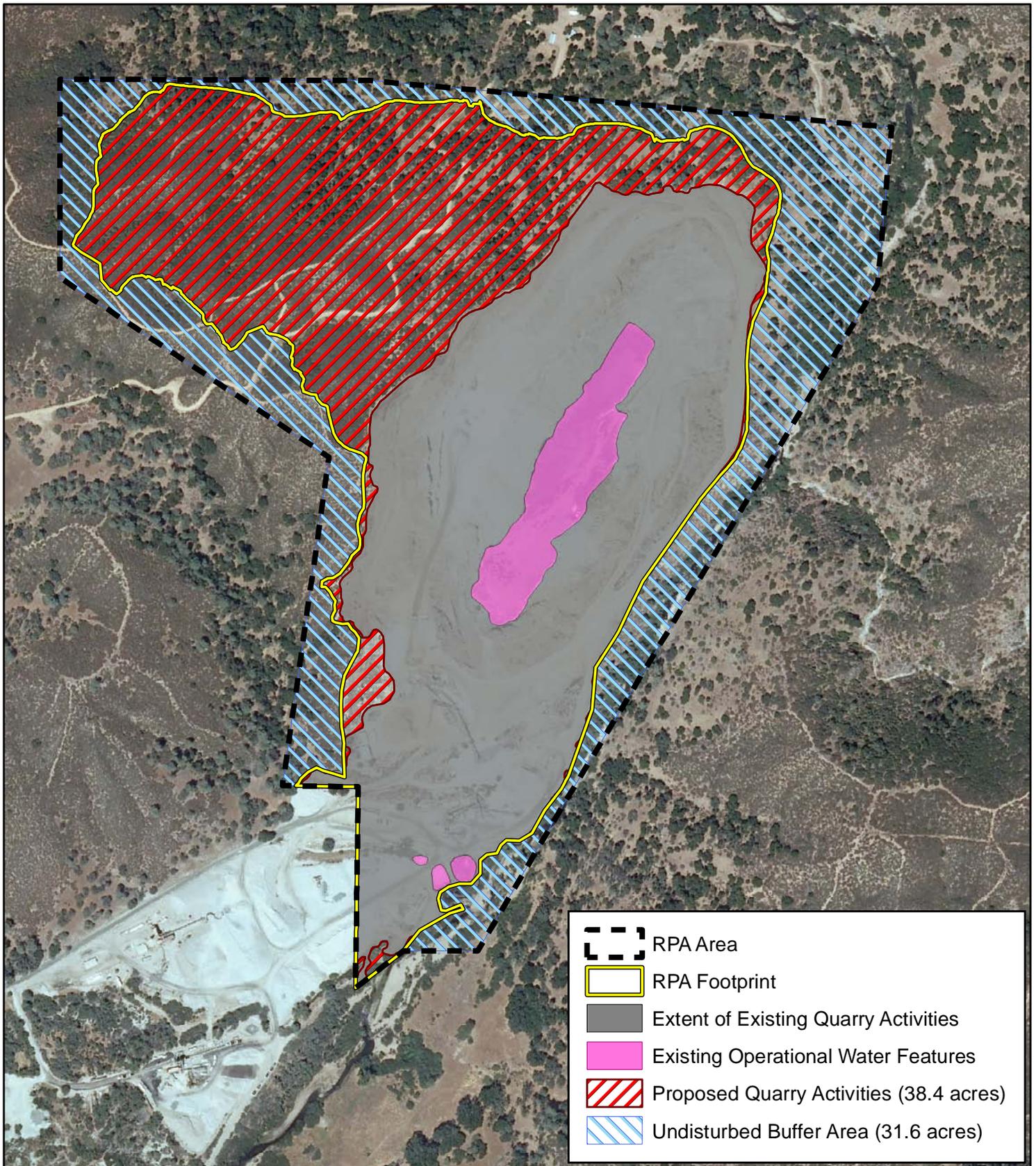


Figure 2. Existing Quarry Activities, Proposed Quarry Activities, and Undisturbed Buffer Area

Santa Margarita Quarry
San Luis Obispo County, California

0 200 400 800
Feet



Date: April 2012
Aerial: 2010 NAIP
Map By: Michael Rochelle

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological resources assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential quarry extension impacts.

2.1 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are protected under federal regulations (such as the CWA), state regulations (such as the Porter-Cologne Act, the CDFG Streambed Alteration Program, and CEQA), or local ordinances or policies (City or County Tree Ordinances, Special Habitat Management Areas, and General Plan Elements).

2.1.1 *Waters of the United States*

The Corps regulates “Waters of the United States” under Section 404 of the CWA. “Waters of the U.S.” are defined broadly as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands stated in the Corps of Engineers Wetlands Delineation Manual (1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated for sufficient duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into “Waters of the U.S.,” including wetlands, generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

2.1.2 *Waters of the State*

The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the Corps under Section 404. “Waters of the State” are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Quarry extensions that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact “Waters of the State,” are required to comply with the terms of the Water Quality Certification determination. If a proposed quarry extension does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to “Waters of the State,” the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

2.1.3 *Streams, lakes, and riparian habitat*

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes may require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as “on or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG ESD 1994). Removal of riparian vegetation may also require a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

2.1.4 *Other sensitive biological communities*

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFG. CDFG ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB). Sensitive plant communities are also identified by CDFG on their List of California Natural Communities Recognized by the CNDDDB. All vegetation alliances with a State (“S”) ranking of S1 through S3 (Sawyer et al. 2009) are considered sensitive, as well as communities designated as sensitive in Holland 1986. Impacts to sensitive natural communities identified in local or regional plans, policies, and regulations or by the CDFG or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in City or County General Plans or ordinances.

2.1.5 *Oak woodlands*

California PRC 21083.4 requires each county in California to implement an oak woodland protection policy to mitigate for the loss of oak woodlands resultant from approved quarry extensions within their jurisdiction. In this policy, oak trees are defined as all native species of oaks larger than five inches diameter measured at breast height (DBH), or four and one-half feet above grade. At least one of four mitigation alternatives for significant conversions of oak woodlands are required in this regulation: 1) conserve oak woodlands through the use of a conservation easement, 2) plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees (additionally, tree maintenance must last for seven years and mitigation plantings shall not fulfill more than one-half the mitigation requirement for the quarry extension), 3) contribute funds to the Oak Woodlands Conservation Fund, as established under Section 1363 (a) of the Fish and Game Code, and 4) other mitigation measures developed by the County. The second alternative may also be used to restore former oak woodlands.

The Voluntary Oak Woodlands Management Plan for San Luis Obispo County (Native Tree Committee 2003) reports that quarry extensions undergoing environmental review within the county of San Luis Obispo are required to replant impacted oak trees at a 4 to 1 mitigation ratio; however compliance with this document is voluntary.

Title 22 of the San Luis Obispo County Code requires a tree permit for the removal of any tree greater than 8 inches diameter at breast height (DBH) within any urban or village reserve lines, or other specific areas identified in the planning area standards. It is our determination that the RPA Area lies outside of the jurisdiction of this regulation in rural areas east of the village reserve line for the community of Garden Farms, and outside the urban reserve lines for the towns of Atascadero and Santa Margarita.

2.2 Special Status Species

Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, CDFG Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue; U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern; sensitive species included in USFWS Recovery Plans; and CDFG special status invertebrates are all considered special status species. Although CDFG Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918 (MBTA). Under this legislation, destroying active nests, eggs, and young is illegal. Bald Eagle and Golden Eagle are also afforded additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) which protects bald and golden eagles by prohibiting disturbance of these birds, including injury, or disturbance to breeding, feeding, or sheltering behaviors. Plant species on California Native Plant Society (CNPS) Lists 1 and 2 are also considered special status plant species. Impacts to these species are considered significant according to CEQA.

2.2.1 Critical Habitat

Critical Habitat is a term defined and used in the FESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or quarry extensions they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with Critical Habitat, federal agencies must also ensure that their activities or quarry extensions do not adversely modify Critical Habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard." However, areas that are currently unoccupied by the species but which are needed for the species' recovery, are protected by the prohibition against adverse modification of Critical Habitat.

3.0 METHODS

On January 30 and 31 and March 27, 2008 and October 21, 2011, the RPA Area was traversed on foot to determine (1) plant communities present within the RPA Area, (2) if existing conditions provided suitable habitat for any special status plant or wildlife species, and (3) if sensitive habitats are present. All plant and wildlife species encountered were recorded and are summarized in Appendix C.

3.1 Biological Communities

Prior to the site visit, the Soil Survey of San Luis Obispo County, Paso Robles Area, California (USDA 1983), vegetation, geology, and land use maps, publicly available aerial images; and detailed topographic data for the property provided by the owner were examined to determine if any unique soil or habitat types that could support sensitive plant communities and/or aquatic features were present in the RPA Area.

Biological communities present in the RPA Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations including alliances designated S1 through S3 by Sawyer et al. (2009), and those natural communities designated as sensitive by Holland (1986).

Prior to the site visits, biological communities within the RPA Area were mapped based on aerial photography utilizing aerial image interpretation software (Definen's Ecognition software). The preliminary community boundaries were then field verified or modified as needed in the field over the course of the site visits.

3.1.1 Sensitive biological communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

3.1.1.1 Wetlands and waters

WRA biologists performed a focused evaluation of indicators of wetlands and waters at the RPA Area on January 30 and 31 and March 27, 2008. Data collected in 2008 were verified in the field on October 22, 2011, in preparation of the *Draft Preliminary Determination of Waters of the U.S., Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012a). The preliminary determination has been submitted to the Corps and is awaiting a field verification visit date.

3.1.1.2 Oak woodland assessment

WRA's ISA-Certified Arborist completed an assessment of oak woodlands within the RPA Area on January 30 and 31, 2008. The purpose of the assessment was to characterize oak woodland communities subject to regulation under PRC 21083.4. The assessment consisted of oak woodland mapping using a combination of remote sensing techniques and ground-truthing, and an assessment of tree size, distribution, species composition, and health and condition using a sampling scheme based on the oak woodland map. Methodology and results of the oak woodland assessment are detailed in the *Oak Woodland Assessment, Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012b).

3.1.1.3 Other sensitive biological communities

The RPA Area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFG, biological communities considered sensitive by Holland (1986) or Sawyer et al. (2009), and other biological communities considered sensitive by applicable federal, state, or local laws, regulations and ordinances. If present in the RPA Area, these sensitive biological communities were mapped and are described in the Section 4.1.1 below.

3.1.2 Non-sensitive biological communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special status plant or wildlife species and are identified and described in Section 4.1.2 below.

3.2 Special Status Species

3.2.1 Literature review

Potential occurrence of special status species in the RPA Area was evaluated by first determining which special status species occur in the vicinity of the RPA Area through a literature and database search. Database searches for known occurrences of special status species focused on the Santa Margarita 7.5 minute USGS quadrangle and the eight surrounding USGS quadrangles. The following sources were reviewed to determine which special status plant and wildlife species have been documented to occur in the vicinity of the RPA Area:

- CNDDDB records (CDFG 2012)
- USFWS quadrangle species lists (USFWS 2012)
- CNPS Electronic Inventory records (CNPS 2012)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- Western Field Ornithologists and CDFG publication "California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California" (Shuford and Gardali, eds. 2008)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings and Hayes 1994)

- A Field Guide to Western Reptiles and Amphibians (Stebbins, R.C. 2003)

3.2.2 *Site assessment*

A site visit was made to the RPA Area to search for suitable habitats for species identified in the literature review as occurring in the vicinity. The potential for each special status species to occur in the RPA Area was then evaluated according to the following criteria:

- 1) No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- 2) Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- 3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- 4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- 5) Present. Species is observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site recently.

The site assessment is intended to identify the presence or absence of suitable habitat for each special status species known to occur in the vicinity in order to determine its potential to occur in the RPA Area. The site visits do not constitute a protocol-level survey and are not intended to determine the actual presence or absence of a species; however, if a special status species is observed during the site visits, its presence will be recorded and discussed. Appendix A presents the evaluation of potential for occurrence of each special status plant and wildlife species known to occur in the vicinity of the RPA Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above.

3.2.3 *Floristic-level rare plant surveys*

Three floristic-level plant surveys were conducted by WRA botanists within the RPA Area that coincided with peak blooming periods of potentially occurring special status plant species. Surveys were conducted on March 27, May 21, and August 20, 2008. Two botanists traversed the RPA Area for approximately 10 hours on each survey date for a total of approximately 60 survey-hours.

Floristic-level plant surveys are currently being repeated within the RPA Area. One survey was conducted on March 21, 2012, and two additional survey dates are planned in May and August, 2012.

Plants were primarily identified using The Jepson Manual (Hickman 1993) for field visits conducted in 2008, and The Jepson Manual, 2nd Edition (Baldwin, et al. 2012) for field visits conducted in 2012, to the taxonomic level necessary to determine rarity. Some plants were cross referenced and identified using The Jepson Manual (Hickman 1993) as some agencies and jurisdictions may base rarity on older names. Names given in this report follow The Jepson Manual, 2nd Edition (Baldwin et al. 2012), with synonyms from Hickman (1993) noted in brackets.

The methodology and results of the floristic-level surveys are fully described in the *Rare Plant Survey Report, Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012c).

4.0 RESULTS

4.1 Biological Communities

Generally, the natural community descriptions in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) contain less detail than the vegetation alliances described in *A Manual of California Vegetation* (Sawyer et al. 2009). WRA utilized both resources to characterize the vegetation in the RPA Area, mapping five biological communities composed of six vegetation alliances (Figure 3 and Table 1). For observed communities not described in the literature, WRA created community and/or alliance descriptions based on characteristic dominant species. Vegetation alliances were not classified into subsequent vegetation associations. Biological communities within the RPA Area are summarized in Table 1 and described in this section.

4.1.1 Sensitive biological communities

4.1.1.1 Non-wetland “other waters”

An approximately 3,669 linear foot (5.7 acres) portion of the Salinas River, a perennial stream, is located within the RPA Area but outside of the RPA Footprint (Figure 3). Indicators of OHW included change in vegetation communities (well-developed riparian woodland), surface water, water staining, wrack, scour, and presence of litter and debris.

One ephemeral drainage within the RPA Area was determined to be a potentially jurisdictional Waters of the U.S. (Figure 3). This 1,564 linear foot (0.09 acre) ephemeral stream is situated within a small canyon to the west of the existing quarry pit. Approximately 1,395 linear feet (0.08 acre) of this feature are located within the proposed RPA Footprint, and the remaining 169 linear feet (0.01 acre) are located within the RPA Area outside of the RPA Footprint. Marginal and often discontinuous indicators of OHW included deposition, scouring, and the presence of litter and debris. Much of the drainage in this feature appears to happen subsurface in the sandy soil. Surface water was not observed anywhere in this feature. Signs of surface flow may have been the result of brief runoff following infrequent periods of heavy rainfall.

Figure 3.
 Biological Communities
 within the RPA Area

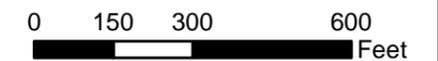
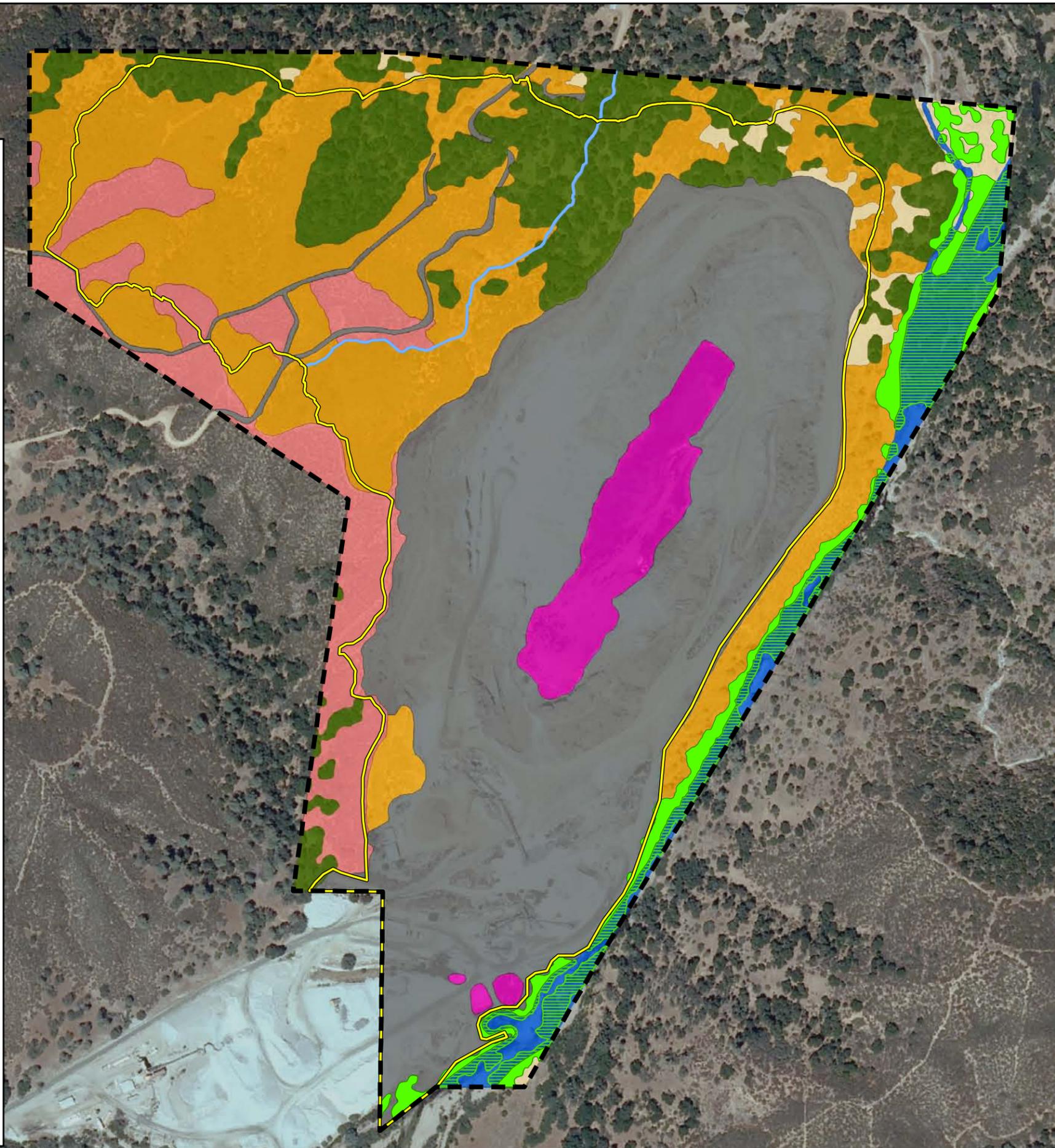
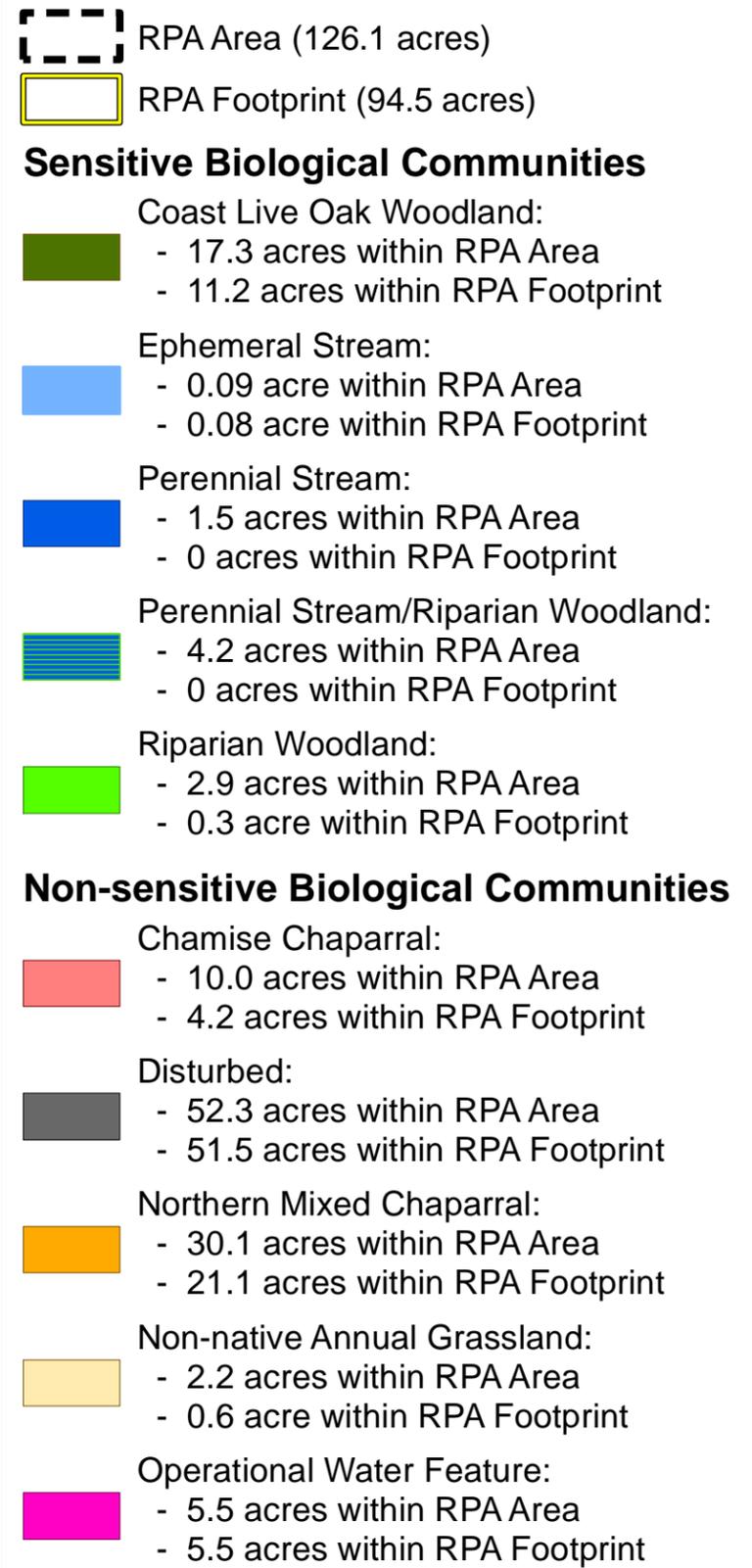


Table 1. Biological Communities within the RPA Area

	Acres (linear feet) in RPA Footprint**	Acres (linear feet) in RPA Area**	Sawyer et al. (2009) Alliance	CDFG Rank ²
<i>Sensitive Biological Communities¹</i>				
“Other Waters”* (ephemeral and perennial stream)	0.08 ac. (1,395 l.f.)	5.79 ac. (3,669 l.f.)	Open Waters*	N/A
Coast Live Oak Woodland	11.2	17.3	Coast live oak (<i>Quercus agrifolia</i>) Woodland Alliance	G5 S4
Central Coast Riparian Scrub (Riparian woodland)	0.3	7.1	Arroyo willow (<i>Salix lasiolepis</i>) Shrubland Alliance	G4 S4
<i>Non-sensitive Biological Communities</i>				
Chamise Chaparral	4.2	10.0	Chamise (<i>Adenostoma fasciculatum</i>) Shrubland Alliance	G5 S5
Northern Mixed Chaparral	21.1	30.1	Buck brush (<i>Ceanothus cuneatus</i>) Shrubland Alliance	G4 S4
			Scrub oak-chamise (<i>Quercus berberidifolia-Adenostoma fasciculatum</i>) Shrubland Alliance	G4 S4
Non-native Annual Grassland	0.6	2.2		N/A
Disturbed Areas*	51.5	52.3	Disturbed Areas*	N/A
Operational Water Holding Features*	5.5	5.5	Operational Water Holding Features*	N/A

¹Sensitivity based on Federal (Corps), State (CDFG), and local (San Luis Obispo County) regulations.

²Alliances ranked G3 S3 or higher were considered to be sensitive.

*For natural communities not described in the literature (i.e. Holland 1986, Sawyer et al. 2009), WRA created this classification based on dominant or characteristic vegetation.

**Because of the overlapping nature of some communities (i.e. perennial waters and riparian woodland) the acreages above will not sum to the precise acreage of the RPA Area.

4.1.1.2 Coast live oak woodland

Approximately 17.3 acres of coast live oak woodland is present in the RPA Area, 11.2 acres of which is located in the proposed RPA Footprint (Figure 3). Coast live oak woodland is comprised of both the coast live oak woodland and coast live oak forest community types described by Holland (1986). Coast live oak woodland is typically found in shaded ravines in the mountain ranges of southern California as well as on north-facing slopes in northern California, usually below 4,000 feet in elevation. This community is extensive in California throughout the Coast Ranges (Holland 1986). It is characterized as containing one dominant tree: coast live oak (*Quercus agrifolia*). The shrub layer is poorly developed but may include toyon (*Heteromeles arbutifolia*), gooseberry (*Ribes* sp.), or blue elderberry (*Sambucus nigra* [*S. mexicanus*] ssp. *caerulea*). The herb layer is generally continuous and dominated by non-native grasses and forbs. Coast live oak forest (Holland 1986) is described as similar to coast live oak woodland with the coast live oak trees forming a dense forest instead of open woodland. Both natural communities are included in the coast live oak woodland alliance (Sawyer et al. 2009).

In the RPA Area, stands of coast live oak trees form open to closed canopies and thus are described by both the woodland and forest community types. Coast live oak woodland/forest within the RPA Area is completely dominated by coast live oak trees with occasional grey pine (*Pinus sabiniana*) in the overstory. Common understory shrubs include poison oak (*Toxicodendron diversilobum*), buck brush (*Ceanothus cuneatus*), toyon, holly-leaf cherry (*Prunus ilicifolia*), and coffeeberry (*Frangula californica* [*Rhamnus californicus*]). Common understory herbs include common bedstraw (*Galium aparine*), bracken fern (*Pteridium aquilinum* var. *pubescens*), coffee fern (*Pellaea andromedifolia*), wild cucumber (*Marah fabacea* [*M. fabaceus*]), and various annual grasses and forbs. Significant amounts of understory regeneration of both coast live oak and grey pine were observed throughout the RPA Area in this community type.

4.1.1.3 Central Coast riparian scrub

Approximately 7.1 acres of riparian woodland is present in the RPA Area, along the Salinas River corridor, 0.3 acre of which is located in the proposed RPA Footprint (Figure 3). Riparian woodland within the RPA Area is comprised of Central Coast riparian scrub described by Holland (1986). Central Coast riparian scrub is characterized by scrubby streamside thickets, varying from open to impenetrable and dominated by any of several willows. This is an early seral stage community (closely following disturbance such as flooding). It occurs on fine-grained substrates close to river channels along many intermittent to perennial streams of the South Coast Ranges, from the Bay Area south to Point Conception.

In the RPA Area, stands of Central Coast riparian scrub were dominated by arroyo willow (*Salix lasiolepis*); however mulefat (*Baccharis salicifolia*) and coyotebrush (*Baccharis pilularis*) were common sub-dominants to co-dominants. Occasional taller riparian trees including red willow (*Salix laevigata*), Fremont cottonwood (*Populus fremontii*) and sycamore (*Platanus racemosa*) formed discontinuous overstory canopy in

some areas. This community type was restricted to the Salinas River corridor in the eastern portion of the RPA Area.

Approximately 0.3 acre of riparian scrub is located within the proposed RPA Footprint, in the existing quarry facilities area. This riparian scrub consists of arroyo willow and coyotebrush individuals that have become established in the gravel substrates of the processing facilities area, adjacent to undisturbed riparian scrub within the banks of the Salinas River.

4.1.2 *Non-sensitive biological communities*

4.1.2.1 Northern mixed chaparral

Northern mixed chaparral (Holland 1986) is found on dry, rocky and often steep slopes throughout the mountain ranges of northern and central California, usually below 5,000 feet in elevation. This community is composed of shrubs two to four meters tall, forming dense and often impenetrable canopies with little or no understory vegetation. Northern mixed chaparral is adapted to repeated fires after which a dense cover of annual herbs may appear followed shortly by re-establishment of dominance by the original shrub species. Characteristic species in this community type include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos glauca*, *A. viscida*), buck brush, birch-leaf mountain mahogany (*Cercocarpus betuloides*), toyon, and holly-leaf cherry. This natural community is composed of several vegetation alliances in the RPA Area including the buck brush shrubland alliance and scrub oak-chamise shrubland alliance.

Northern mixed chaparral is found within the RPA Area at mid elevations between live oak woodlands in the valleys and chamise chaparral on the ridgetops. Dominant species in this community type within the RPA Area include chamise, buck brush, scrub oak (*Quercus berberidifolia*), poison oak, and holly-leaf cherry. Understory vegetation is almost completely absent in this community type in the RPA Area with the exception of few small openings which host chaparral yucca (*Hesperoyucca* [*Yucca*] *whipplei*) and various annual grasses and forbs.

4.1.2.2 Chamise chaparral

Chamise chaparral (Holland 1986) has a general distribution similar to northern mixed chaparral although is more abundant in southern California than in northern California. This community type is overwhelmingly dominated by one to three meter tall chamise with associated species contributing little to cover. In mature stands, very little understory vegetation or leaf litter are present. Species characteristically associated with this community type include buck brush, manzanita, birch-leaf mountain mahogany, holly-leaf cherry, bush poppy (*Dendromecon rigida*), white sage (*Salvia apiana*), black sage (*Salvia mellifera*), and deerweed (*Acmispon glaber* [*Lotus scoparius*]). This natural community is composed entirely of the chamise shrubland alliance.

In the RPA Area, chamise chaparral is found along the ridgetops and on south and west-facing slopes. Chamise chaparral in the RPA Area is completely dominated by chamise with associated species occurring along the edges of chamise stands, or along bordering roadsides. Species observed within the RPA Area associated with chamise

chaparral include deerweed, black sage, bush poppy, and manzanita (*A. glauca*). Little to no understory vegetation was observed in this community type in the RPA Area.

4.1.2.3 Non-native annual grassland

Non-native annual grassland is described in Holland (1986) as a dense to sparse cover of annual grasses and herbs 0.2 to 0.5 meters high. Characteristic species include wild oats, soft chess (*Bromus hordeaceus*), filaree (*Erodium botrys*, *E. cicutarium*), Italian ryegrass (*Festuca perennis*), small fescue (*Festuca microstachys*), and various native and non-native herbs and wildflowers. This community type is distributed throughout the valleys and foothills of most of California below 3,000 feet. Non-native annual grassland was mapped in the RPA Area in various landscape positions. Non-native annual grassland intergrades with chaparrals and oak woodlands on slopes and ridgelines and occurs in openings in oak woodland. Species typical of this community type in the RPA Area include wild oats, ripgut brome (*Bromus diandrus*), soft chess, Italian ryegrass, filaree, small fescue and glandular layia (*Layia glandulosa*) and California poppy (*Eschscholzia californica*).

4.1.2.4 Operational water holding features

Settling ponds for quarry runoff and operational water ponds were identified within the RPA Area as shown on Figure 3.

4.1.2.5 Disturbed areas

“Disturbed areas” is not a community type described in Holland (1986). “Disturbed areas” describes all areas within the RPA Area that have recently or historically been disturbed by human activity and currently do not host a plant community. Areas within the RPA Area that were identified as disturbed areas include graded dirt roads and the existing quarry pit and operational areas.

4.2 Special Status Species

4.2.1 Special status plant species

Based upon a review of the resources and databases given in Section 3.2.1, 67 special status plant species have been documented in the vicinity of the RPA Area. Based upon their general habitat requirements, the proposed RPA Footprint has the potential to support 20 of these species. Appendix A, Table 1 summarizes the potential for occurrence within the proposed RPA Footprint for each special status plant species occurring in the vicinity of the RPA Area. Special status plant species with a high or moderate potential to occur in the RPA Footprint are discussed below.

The RPA Area, exclusive of the proposed RPA Footprint, has the potential to support an additional four special status plant species. Appendix A, Table 2 lists only those species that are unlikely or have no potential to occur within the RPA Footprint itself, but have a high or moderate potential to occur in habitats adjacent to the RPA Footprint, specifically those associated with wetland habitats found in and directly adjacent to the Salinas River. These species are discussed in Section 4.2.1.2 below.

No special status plant species were observed in the RPA Area during the assessment site visits. Twenty special status plant species have a moderate potential to occur in the proposed RPA Footprint. An additional four species have a moderate potential to occur in the RPA Area, exclusive of the RPA Footprint, specifically in habitats directly associated with the Salinas River. The remaining 43 special status plant species documented to occur in the vicinity of the RPA Area are unlikely or have no potential to occur. Figure 4 displays CNDDDB occurrences of special status plants within five miles of the RPA Area.

4.2.1.1 Special status plant species with potential to occur in the RPA Footprint

Hoover's bent grass (*Agrostis hooveri*). CNPS List 1B. Moderate potential. Hoover's bent grass is a perennial herb in the grass family (Poaceae) that occurs in the understory of chaparral and woodland habitats, as well as in open grasslands in Santa Barbara and San Luis Obispo Counties at elevations from 6 to 610 meters. It blooms between April and July. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

San Luis mariposa lily (*Calochortus obispoensis*). CNPS List 1B. Moderate potential. San Luis mariposa lily is a perennial herb (bulb) in the lily family (Liliaceae) that occurs in the understory of and openings in chaparral and coastal sage scrub habitats, as well as in open grasslands in San Luis Obispo County at elevations from 75 to 730 meters. It blooms between May and July. The chaparral habitats in the RPA Area may provide suitable habitat for this species.

La Panza mariposa lily (*Calochortus simulans*). CNPS List 1B. Moderate potential. San Luis Obispo mariposa lily is a perennial herb (bulb) in the lily family (Liliaceae) that occurs in the understory of chaparral, woodland, and forest habitats, as well as in open grasslands in Santa Barbara and San Luis Obispo Counties at elevations from 395 to 1100 meters. It blooms between April and May. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

Dwarf calycadenia (*Calycadenia villosa*). CNPS List 1B. Moderate potential. Dwarf calycadenia is an annual herb in the sunflower family (Asteraceae) that occurs in the understory of chaparral and woodland habitats, as well as in open grasslands, meadows, and seeps along the central coast of California at elevations from 240 to 1350 meters. It blooms between May and October. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

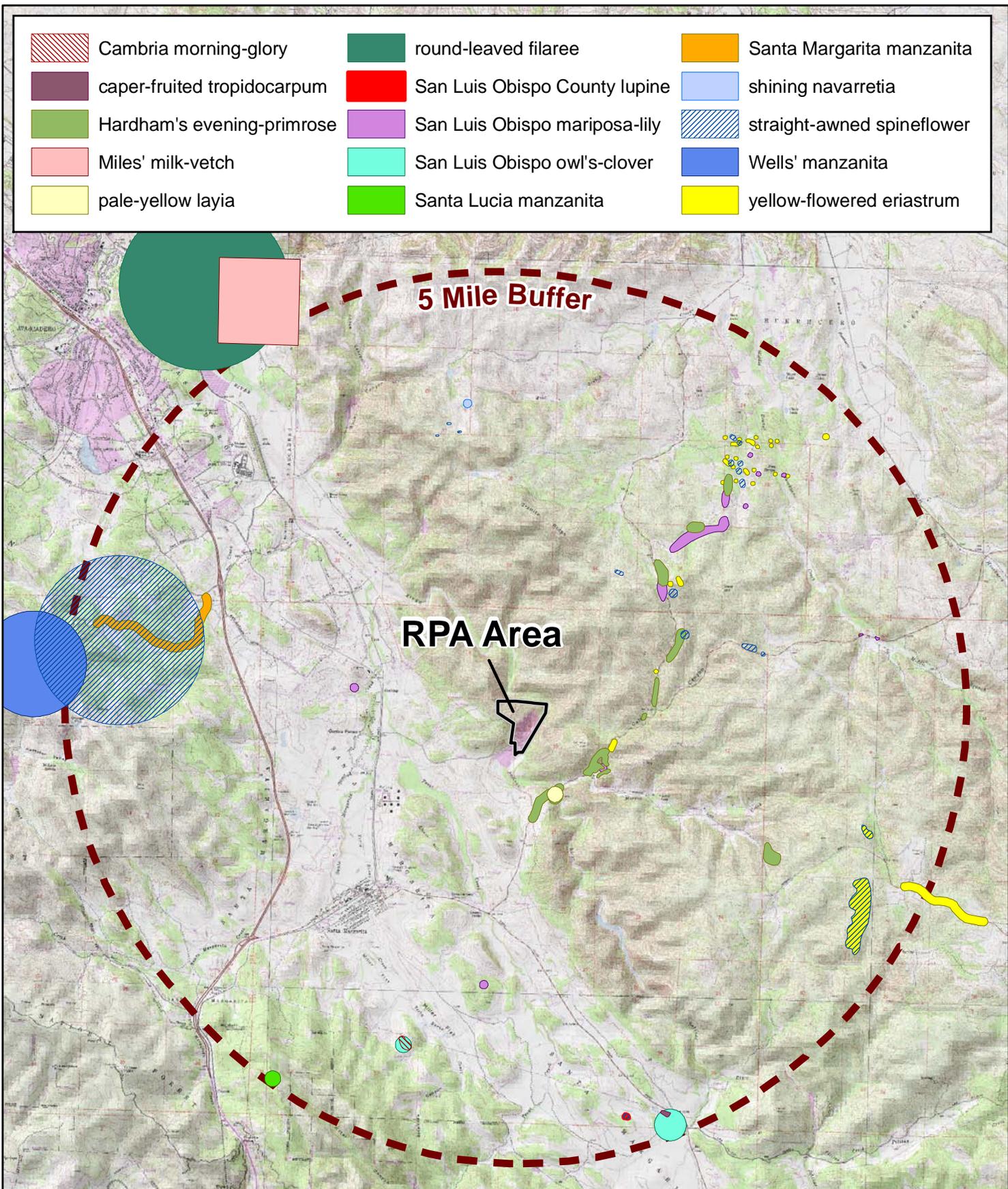
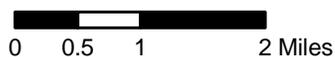


Figure 4. CNDDDB Occurrences of Special-status Plants within Five Miles of the RPA Area

Santa Margarita Quarry
San Luis Obispo County, California



Date: April 2012
Basemap: USGS Topo Quad
Map By: Michael Rochelle

Hardham's evening primrose (*Camissoniopsis [Camissonia] hardhamiae*). CNPS List 1B. Moderate potential. Hardham's evening primrose is an annual herb in the willowherb family (Onagraceae) that occurs in the understory of chaparral and woodland habitats in Monterey and San Luis Obispo Counties at elevations from 140 to 610 meters. It blooms between April and May. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

San Luis Obispo sedge (*Carex obispoensis*). CNPS List 1B. Moderate potential. San Luis Obispo sedge is a perennial herb (rhizotamous) in the sedge family (Cyperaceae) that occurs in the understory of forest, chaparral and scrub habitats, as well as in open grasslands and coastal prairies in Monterey, San Diego, and San Luis Obispo Counties at elevations from 10 to 790 meters. It blooms between April and June. The chaparral habitats in the RPA Area may provide suitable habitat for this species.

Purple amole (*Chlorogalum purpureum* var. *purpureum*). Federal Threatened, CNPS List 1B. Moderate potential. Purple amole is a perennial herb (bulb) in the century plant family (Agavaceae) (formerly in the lily family [Liliaceae]) that occurs in the understory of woodland habitats as well as in open grasslands in Monterey and San Luis Obispo Counties at elevations from 205 to 350 meters. It blooms between April and June. The woodland habitats in the RPA Area may provide suitable habitat for this species.

Strait awned spineflower (*Chorizanthe rectispina*). CNPS List 1B. Moderate potential. Strait awned spineflower is an annual herb in the knotweed family (Polygonaceae) that occurs in the understory of chaparral, woodland, and coastal scrub habitats in Monterey, Santa Barbara, and San Luis Obispo Counties at elevations from 85 to 1035 meters. It blooms between April and July. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

Pismo clarkia (*Clarkia s66peciosa* ssp. *immaculata*). Federal Endangered, State Rare, CNPS List 1B. Moderate potential. Pismo clarkia is an annual herb in the willowherb family (Onagraceae) that occurs on sandy soils in openings in chaparral and woodland and in grasslands in San Luis Obispo County from 25 to 185 meters. Although it is known from more maritime-influenced portions of the County, chaparral, woodland and grassland habitats with sandy soils in the RPA Area may provide suitable habitat for this species.

Yellow-flowered eriastrum (*Eriastrum luteum*). CNPS List 1B. Moderate potential. Yellow-flowered eriastrum is an annual herb in the phlox family (Polemoniaceae) that occurs in the understory of forest, chaparral, and woodland habitats in Monterey and San Luis Obispo Counties at elevations from 290 to 1000 meters. It blooms between May and June. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

Ojai fritillary (*Fritillaria ojaiensis*). CNPS List 1B. Moderate potential. Ojai fritillary is a perennial herb (bulb) in the lily family (Liliaceae) that occurs in the understory of chaparral and forest habitats in Sonoma, Ventura, Santa Barbara, and San Luis Obispo Counties at elevations from 300 to 998 meters. It blooms between March and May. The chaparral habitats in the RPA Area may provide suitable habitat for this species.

Pale-yellow layia (*Layia heterotricha*). CNPS List 1B. Moderate potential. Pale-yellow layia is an annual herb in the sunflower family (Asteraceae) that occurs in the understory of woodland habitats as well as in open grasslands along the central coast of California at elevations from 300 to 1705 meters. It blooms between March and June. Woodland and grassland habitats in the RPA Area may provide suitable habitat for this species.

Jones' layia (*Layia jonesii*). CNPS List 1B. Moderate potential. Jones' layia is an annual herb in the sunflower family (Asteraceae) that occurs in the understory of chaparral habitats as well as in open grasslands San Luis Obispo County at elevations from 5 to 400 meters. It blooms between March and May. The chaparral and grassland habitats in the RPA Area may provide suitable habitat for this species.

San Luis Obispo County lupine (*Lupinus ludovicianus*). CNPS List 1B. Moderate potential. San Luis Obispo County lupine is a perennial herb in the pea family (Fabaceae) that occurs in the understory of chaparral and woodland habitats in San Luis Obispo County at elevations from 50 to 525 meters. It blooms between April and July. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *involucratus*). CNPS List 1B. Moderate potential. Carmel Valley bush-mallow is a deciduous shrub in the mallow family (Malvaceae) that occurs in woodland, chaparral, and scrub habitats in Monterey and San Luis Obispo Counties at elevations from 30 to 1100 meters. It blooms between May and August, sometimes as late as October. The woodland and chaparral habitats in the RPA Area may provide suitable habitat for this species.

Santa Lucia bush-mallow (*Malacothamnus palmeri* var. *palmeri*). CNPS List 1B. Moderate potential. Santa Lucia bush-mallow is a deciduous shrub in the mallow family (Malvaceae) that occurs in chaparral habitats in Monterey and San Luis Obispo Counties at elevations from 60 to 360 meters. It blooms between May and July. The chaparral habitats in the RPA Area may provide suitable habitat for this species.

Shining navarretia (*Navarretia nigelliformis* ssp. *radians*). CNPS List 1B. Moderate potential. Shining navarretia is an annual herb in the phlox family (Polemoniaceae) that occurs in the understory of woodland habitats as well as in open grasslands and vernal pools in central California at elevations from 76 to 1000 meters. It blooms between May and July. The woodland habitats in the RPA Area may provide suitable habitat for this species.

Hooked popcornflower (*Plagiobothrys uncinatus*). CNPS List 1B. High potential. Hooked popcornflower is an annual herb in the borage family (Boraginaceae) that occurs on sandy soils in chaparral, cismontane woodland and valley and foothill grassland from 300 to 600 meters. It blooms from April to May. Openings in chaparral and cismontane woodland habitats within the RPA Area provide suitable habitat for this species.

White rabbit-tobacco (*Pseudognaphalium leucocephalum*). CNPS List 2. Moderate potential. White rabbit-tobacco is a perennial herb in the sunflower family (Asteraceae) that occurs in the understory of woodland, chaparral, and scrub habitats along the southern California coast at elevations from 0 to 2100 meters. It blooms

between August and November. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

Rayless ragwort (*Senecio aphanactis*). CNPS List 2. Moderate potential. Rayless ragwort is an annual herb in the sunflower family (Asteraceae) that occurs in the understory of woodland, chaparral and scrub habitats throughout California at elevations from 15 to 800 meters. It blooms between January and April. The chaparral and woodland habitats in the RPA Area may provide suitable habitat for this species.

4.2.1.2 Additional special status plant species with potential to occur in the RPA Area

The RPA Area, exclusive of the proposed RPA Footprint, has the potential to support an additional four special status plant species. Appendix A, Table 2 lists only those species that are unlikely or have no potential to occur within the proposed RPA Footprint itself, but have a high or moderate potential to occur in habitats adjacent to the RPA Footprint, specifically those associated with habitats found in and directly adjacent to the Salinas River. These species are discussed below.

Marsh sandwort (*Arenaria paludicola*). Federal Endangered, State Endangered, CNPS List 1B. Moderate Potential. Marsh sandwort is a perennial herb in the pink family (Caryophyllaceae) that occurs on sandy soils in wetland habitats in Los Angeles and San Luis Obispo County from 3 to 170 meters. It blooms from May to August. Suitable marsh or swamp habitat may be present along the Salinas River within the RPA Area, especially on river margins and backwaters.

Santa Lucia dwarf rush (*Juncus luciensis*). CNPS List 1B. Moderate Potential. Santa Lucia dwarf rush is an annual herb in the rush family (Juncaceae) that occurs in vernal pools, meadows, lower montane coniferous forest, chaparral, great basin scrub, wet meadow habitats, and streamsides from 300 to 2,040 meters. It blooms from April to June. Wetland habitat along the Salinas River may provide suitable habitat for this species.

Gambel's watercress (*Nasturtium gambelii*). Federal Endangered, State Endangered, CNPS List 1B. Moderate Potential. Gambel's watercress is a perennial rhizomatous herb in the mustard family (Brassicaceae) that occurs in freshwater or brackish marshes and swamps from 5 to 330 meters in Los Angeles, Orange, Santa Barbara, San Diego and San Luis Obispo counties. It blooms from April to October. Wetland habitat along the Salinas River may provide suitable habitat for this species.

San Bernardino aster (*Symphotrichum defoliatum*). CNPS List 1B. Moderate Potential. San Bernardino aster is a perennial rhizomatous herb in the sunflower family (Asteraceae) that occurs in mesic habitats from 2 to 2,040 meters, throughout cismontane southern California, north to Kern and San Luis Obispo counties. It blooms from July to November. Wetland habitat along the Salinas River may provide suitable habitat for this species.

4.2.2 *Special status wildlife species*

Based upon a review of the resources and databases given in Section 3.2.1, 53 special status species of wildlife have been recorded in the vicinity of the RPA Area. Appendix A, Table 1 summarizes the potential for occurrence within the proposed RPA Footprint for each special status wildlife species occurring in the vicinity of the RPA Area. Based upon general habitat requirements the proposed RPA Footprint has the potential to support 13 of these species, including golden eagle (*Aquila chrysaetos*) a state fully-protected species known to be present. Golden eagle was observed within the RPA Footprint during site assessments in 2008 and 2011; however this species has not been observed nesting in RPA Area. No species that are listed as endangered or threatened at the federal or state level have a high or moderate potential to occur within the RPA Footprint. Critical Habitat for California red-legged frog (CRLF) is present in the RPA Footprint; however CRLF is unlikely to ever be present in the RPA Area.

The RPA Area, exclusive of the proposed RPA Footprint, has the potential to support an additional six special status wildlife species, including one federal threatened species, south central California coast steelhead distinct population segment (DPS). Appendix A, Table 2 lists only those species that are unlikely or have no potential to occur within the RPA Footprint itself, but have a high or moderate potential to occur in habitats adjacent to the RPA Footprint, specifically those associated with wetland habitats found in and directly adjacent to the Salinas River. These species are discussed in Section 4.2.2.2 below.

Ten special status wildlife species documented in the vicinity of the RPA Area have no potential to be present, as the RPA Area is not within the species' known range or clearly does not contain the species' required habitat requirements. Thirty special status wildlife species are unlikely to occur due to absence of specific habitat components or lack of connectivity to suitable habitats. Figure 5 displays CNDDDB occurrences of special status wildlife within five miles of the RPA Area. Special status wildlife species with a high or moderate potential to occur in the RPA Footprint are discussed below.

- | | | |
|--|--|---|
|  American badger |  grasshopper sparrow |  Townsend's big-eared bat |
|  California red-legged frog |  loggerhead shrike |  western pond turtle |
|  Coast Range newt |  pallid bat |  western spadefoot |
|  ferruginous hawk |  purple martin |  white-tailed kite |
|  foothill yellow-legged frog |  silvery legless lizard | |

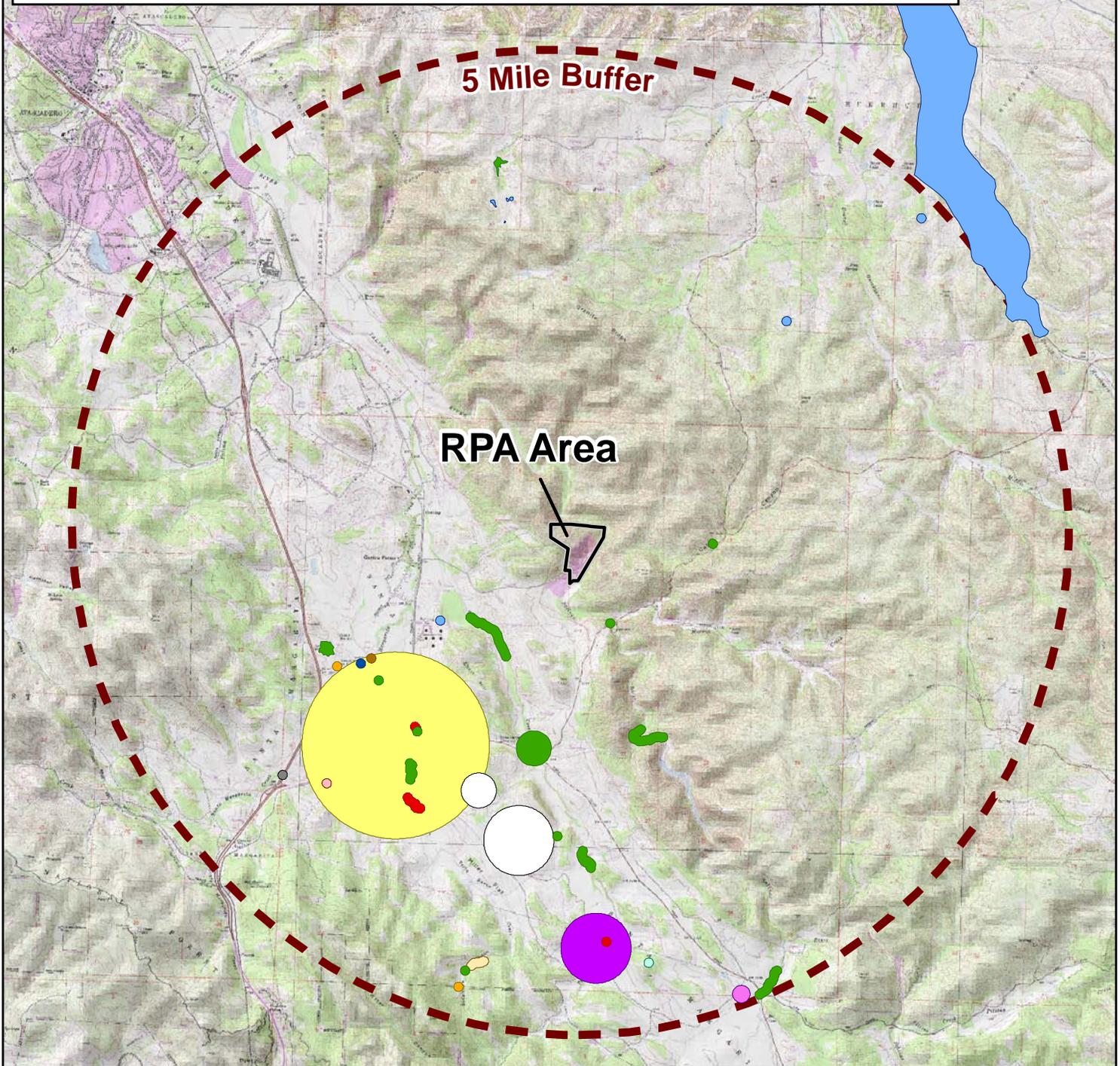
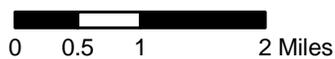


Figure 5. CNDDDB Occurrences of Special-status Wildlife within Five Miles of the RPA Area

Santa Margarita Quarry
San Luis Obispo County, California



Date: April 2012
Basemap: USGS Topo Quad
Map By: Michael Rochelle

4.2.2.1 Special status wildlife species with potential to occur within the RPA Footprint

A. Special Status Bats

Pallid bat (*Antrozous pallidus*). CDFG Species of Special Concern, WBWG High Priority. High Potential. The pallid bat is widely distributed in California, occurring in a number of habitats from rocky arid deserts to grasslands and into higher-elevation coniferous forests. Pallid bats often roost in colonies of between 20 and several hundred individuals. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is taken on the ground, or sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2011). Within the RPA Area, hollow trees in the oak woodland and rock crevices in chaparral communities provide potential roost habitat for this species; therefore, there is a high potential for occurrence of this bat.

Fringed myotis bat (*Myotis thysanodes*). WBWG High Priority. High Potential. The fringed myotis ranges through much of western North America. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest; oak and pinyon-juniper woodlands are most commonly used. Roosting colonies of fringed myotis roost range from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in Oregon, New Mexico, and California (WBWG 2011). This species has a high potential to roost in hollow trees or large snags located throughout the RPA Area.

Long-legged myotis bat (*Myotis volans*). WBWG High Priority. High Potential. The long-legged myotis ranges across western North America. This species is usually found in coniferous forests, but also occurs seasonally in riparian and desert habitats. It uses abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark and hollows within snags as summer day roosts. Caves and mines are used as hibernation roosts. Foraging occurs in and around the forest canopy, with moths and other soft-bodied insects being preferred prey (WBWG 2011). This species has a high potential to roost in hollow trees, large snags, or in rock crevices located throughout the RPA Area.

B. Special Status and MBTA-covered Birds

Golden eagle (*Aquila chrysaetos*). CDFG Fully Protected Species, USFWS Bird of Conservation Concern. Present. The golden eagle is largely resident in open and semi-open areas from sea level to 11,600 feet elevation. Suitable habitats include shrubland, grassland, desert, mixed woodland, and coniferous forest. This species is usually found in mountainous areas, but it also nests in wetland, riparian, and estuarine habitats at lower elevations (Kochert et al. 2002). Nests are large and typically built on cliff ledges or in large, relatively isolated trees. Foraging occurs over wide areas,

primarily for ground squirrels, rabbits, large birds, and carrion. Golden eagles were observed displaying aerial courtship behavior in the RPA Area at the time of the January 2008 site visit, and an individual was also observed within the RPA Area during the October 2011 site visit. This species likely forages within the RPA Area and may also nest there within suitable woodland/forest habitat, although no nests have been observed to date.

Long-eared owl (*Asio otus*). CDFG Species of Special Concern. Moderate Potential. This generally uncommon species is resident throughout much of California outside of the Central Valley. The long-eared owl nests in a variety of woodland habitats, including oak and riparian. It requires adjacent open land with rodents for foraging, and also the presence of old nests made by other larger birds (e.g. crows, hawks). Often roosts communally in the winter. The RPA Area provides woodland habitat with some suitable nesting trees and open lands for foraging in the vicinity, and is within Long-eared Owl's breeding range per a recent monograph in Shuford and Gardali (2008). There is a moderate potential for long-eared owls to utilize the RPA Area, including for breeding.

Costa's hummingbird (*Calypte costae*). USFWS Bird of Conservation Concern. High Potential. Costa's hummingbird is a relatively common resident along the coastal slope of central and southern California and also in the interior deserts. This species typically inhabits arid habitats that provide flower nectar and insects, including desert scrub, coastal scrub and chaparral. Nests are built in a variety of trees, shrubs, cacti and woody forbs, often close to a water source. Open woodland and chaparral habitats within the RPA Area provide suitable habitat, and there is a high potential for this species to occur there.

Lewis' woodpecker (*Melanerpes lewis*). USFWS Bird of Conservation Concern. Moderate Potential. Lewis's woodpecker is resident and also a winter visitor in California. Preferred habitat is woodlands, including those of conifers, pine-oak and oak. This species often shows an affinity for recently burned areas. Nesting occurs in tree cavities, often in loose colonies. The RPA Area features open oak woodland habitats and there is moderate potential for this species to occur there, including nesting.

Nuttall's woodpecker (*Picoides nuttallii*). USFWS Bird of Conservation Concern. High Potential. Nuttall's woodpecker, common in much of its range, is a year-round resident throughout most of California west of the Sierra Nevada and the southern deserts. Typical habitat is woodland of oaks, pine-oak or riparian. Nesting occurs in tree cavities. The RPA Area's woodlands provide suitable nesting and foraging habitat.

Olive-sided flycatcher (*Contopus cooperi*). CDFG Species of Special Concern. Moderate Potential. The olive-sided flycatcher is a summer resident in California, found in a variety of forested habitats. Wintering occurs in Central and South America. This species typically nests in coniferous forest at higher elevations, but also nests in mixed forest and woodlands at lower elevations. Breeding habitat often associated with forest openings and edges, both natural (e.g., meadows, canyons, rivers) and human-made (e.g., harvest units) (Altman 2000). The RPA Area provides oak woodland/forest habitat with intermixed pines, and per a recent monograph in Shuford and Gardali (2008) is within this species' breeding range in San Luis Obispo County.

Bell's sage sparrow (*Amphispiza belli belli*). USFWS Bird of Conservation Concern. High Potential. Bell's sage sparrow is a characteristic chaparral and coastal sage scrub bird found mainly in drier, more inland areas of the Coast Ranges and southern California. It is a year-round resident in most of its range but also exhibits elevational movements during the non-breeding season. Bell's sage sparrow is closely associated with chamise in most of its range (Chase and Carlson 2002), seeking cover in dense chaparral and foraging for seeds and insects in low foliage and on the ground. The RPA Area provides dense chamise-dominated chaparral habitat and thus this species has a high potential to occur there, including nesting.

Lawrence's goldfinch (*Carduelis lawrencei*). USFWS Bird of Conservation Concern. Moderate Potential. This generally uncommon species is endemic as a breeder to arid woodland habitats in the Central Valley and coastal foothills of California, as well as northern Baja California. Annual distribution within the breeding range can be highly erratic. Wintering occurs in the greater southwest region, including central California. Suitable woodland habitat is frequently dominated by oaks, and annual native plants are an important food resource (Davis 1999). Suitable oak woodland habitat is present within the RPA Area, particularly the northern section that adjuncts the Salinas River. This species has a moderate potential to occur within the RPA Area, including nesting.

C. Special Status Reptiles

Coast horned lizard (*Phrynosoma blainvillii*). CDFG Species of Special Concern. High Potential. The coast horned lizard is widespread in much of California west of the Sierra Nevada-Cascades ranges and the southern deserts. Habitat is variable and in southern California includes chaparral, coastal sage scrub, oak and riparian woodlands, and grassland. Important microhabitat components are loose, sandy soil; open, sunny areas with dense, low shrubbery; and, abundant ants and other insects for forage (Jennings and Hayes 1994). This species has a high potential to occur within the RPA Area, particularly in open areas within chaparral.

Silvery legless lizard (*Anniella pulchra pulchra*). CDFG Species of Special Concern. Moderate Potential. This seldom-observed burrowing lizard occurs primarily in loose sandy or loamy soils beneath sparse vegetation within beach, chaparral, or various woodland habitats, including riparian (Jennings and Hayes 1994). Soil moisture is essential for survival, and legless lizards are often found in or just below moist areas including beneath leaf litter and pieces of wood or boards. Diet of this species consists of insect larvae, small adult insects and spiders. There is a documented occurrence within five miles of the RPA Area (CDFG 2012). The sandy soils found throughout much of the RPA Area are likely too dry to support this species. However, there is a moderate potential for occurrence in the lower portions of drainages along the northern portion of the RPA Area, where greater soil moisture retention occurs.

D. Critical Habitat

California red-legged frog (*Rana draytonii*) Critical Habitat. Present. CRLF Critical Habitat, specifically habitat unit "SLO-3" (Federal Register 50 CFR Part 17), is present along the ridgeline in the northwest portion of the RPA Area in dense chamise and northern mixed chaparral habitat (Figure 6).

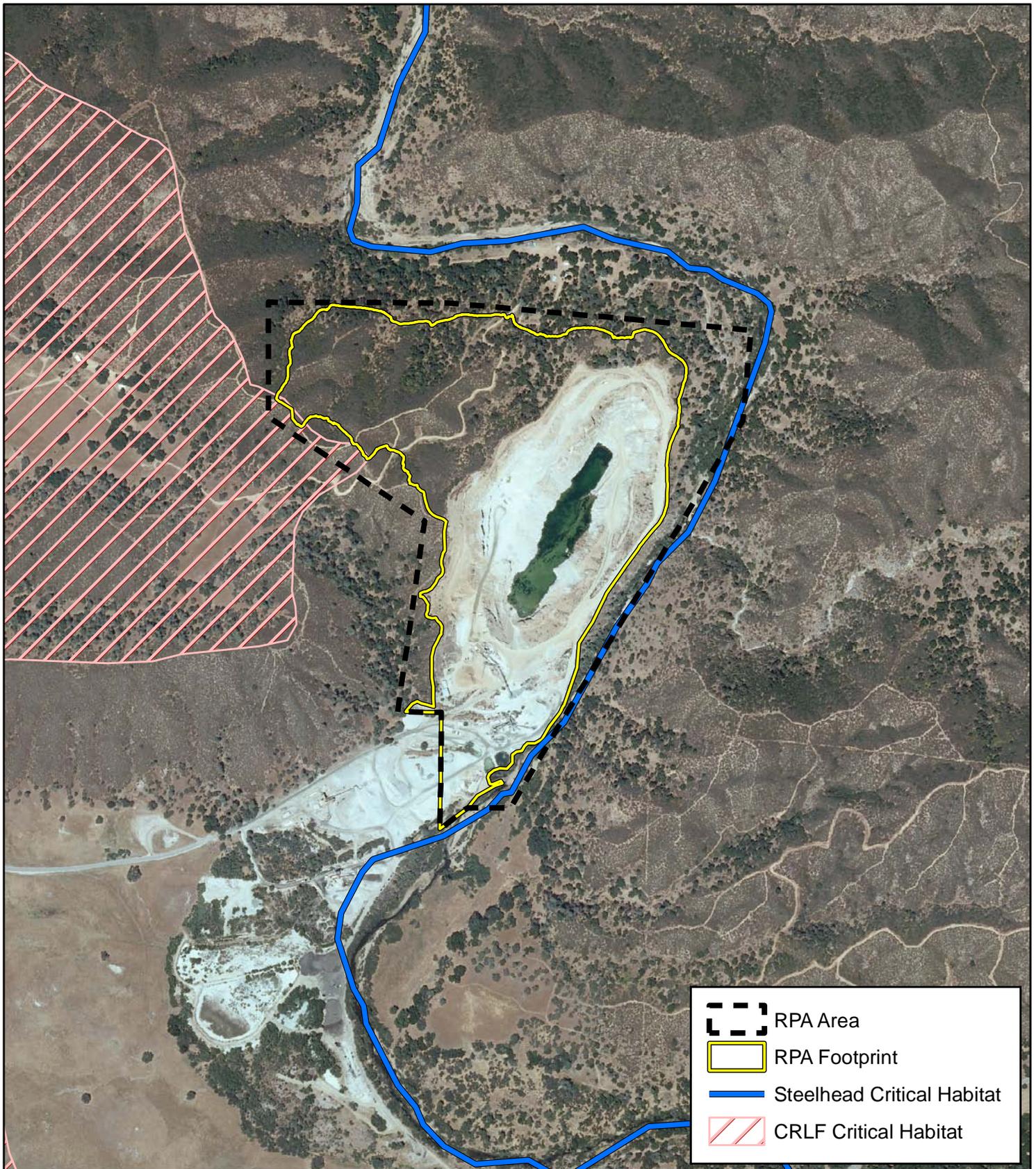


Figure 6. Critical Habitat within the RPA Area

Santa Margarita Quarry
 San Luis Obispo County, California



	RPA Area
	RPA Footprint
	Steelhead Critical Habitat
	CRLF Critical Habitat



Date: April 2012
 Aerial: 2010 NAIP
 Map By: Michael Rochelle

There are four primary constituent elements (PCEs) that are considered to be essential for conservation or survival of the species: 1) aquatic breeding habitat, 2) non-breeding aquatic habitat, 3) upland habitat, and 4) dispersal habitat (USFWS 2006). Dependent upon local conditions, CRLF may complete the entire life cycle in a particular patch of habitat (e.g., a pond suitable for all life stages), or utilize multiple habitat types. Typical aquatic breeding habitat is characterized by deep (> 1.5 feet) and still or slow-moving water associated with emergent marsh and/or riparian vegetation (Jennings and Hayes 1994). Suitable breeding habitats include ponds (ephemeral and permanent), streams/creeks (ephemeral and permanent), seasonal wetlands, springs, seeps, man-made features (e.g. stock ponds, roadside ditches), marshes, dune ponds, and lagoons. Non-breeding aquatic habitat may or may not constitute suitable breeding habitat, but it provides shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF.

If aquatic habitat is seasonally limited or absent, CRLF often undergo a period of inactivity (estivation) during the dry months, over-summering in suitable upland refugia including mammal burrows. Upland habitats include areas within 300 feet of aquatic and riparian habitat and include grasslands, woodlands, and/or vegetation. In addition, during dispersals to and from breeding habitat, CRLF can travel up to one mile over a variety of topographic and habitat types (Bulger et al. 2003). Upland dispersal habitats include riparian corridors, grasslands, and oak savannas that allow for movement between occupied sites, typically within 0.7 mile of each other.

Although there are documented occurrences within five miles of the RPA Area, the nearest being approximately 1.8 and 2.5 miles to the southwest (CDFG 2012), these occurrences all lie on the opposite side of the ridgeline and west of the RPA Area's foothill location and none are in association with the Salinas River mainstem. The RPA Area and adjacent portions of the Salinas River are thus not situated on any logical dispersal pathway for CRLF, and this species is unlikely to occur there at any time of year.

The RPA Area itself provides no suitable aquatic breeding habitat for CRLF. The portions of the Salinas River adjacent to the RPA Area are unlikely to provide any suitable breeding habitat primarily because seasonal flow is too strong during the winter and spring. Conversely, overflow pools and other backwaters with calmer water are likely too shallow for breeding. The ephemeral stream running through the northern portion of the RPA Footprint is steep and rocky and therefore not considered breeding habitat. The vegetation within the Critical Habitat overlap is largely dense chaparral (chamise and northern mixed) on a steep slope with some Coast live oak forest and woodland in the northern portion. This dense chaparral cover with little to no understory creates suboptimal upland habitat for CRLF and does not provide dispersal habitat due to absence of suitable habitats within or to the north and east of the RPA Area. Therefore, the Critical Habitat that overlaps within the RPA Area provides none of the PCEs for CRLF.

Although CRLF are not expected to occur there, the RPA Area's western boundary lies directly adjacent to a portion of Critical Habitat for CRLF. The ridgeline running roughly northwest-southeast in this area is the approximate local boundary of this Critical Habitat unit, but it does include some small areas on the northeast side of the ridge within the RPA Area. This results in an estimated overlap of 1.94 acres of CRLF Critical Habitat within the RPA Area (0.18 acres within the RPA Footprint).

4.2.2.2 Additional special status wildlife species with potential to occur within the RPA Area

The Salinas River flows within the eastern portion of the RPA Area; however, the river is located outside of the RPA Footprint. Although the river and its adjacent habitats will not be directly affected by the quarry extension, they could be subject to indirect effects that would be evaluated during the CEQA process. One species is considered present and there are five additional species with a high or moderate potential to occur within this area. The relevant population of one of these species (steelhead [*Oncorhynchus mykiss irideus*]) is listed under the federal Endangered Species Act.

A. Special Status Bats

Western red bat (*Lasiurus blossevillii*). WBWG High Priority. High Potential. This species is considered highly migratory, and broadly distributed, reaching from southern Canada, through much of the western United States. They are typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas possibly an association with riparian habitat (particularly willows, cottonwoods, and sycamores). Suitable roost habitat is present in riparian woodlands located immediately north of the RPA Footprint within the RPA Area along the Salinas River.

B. Special Status and MBTA-covered Birds

(Brewster's) Yellow warbler (*Dendroica petechia brewsteri*). CDFG Species of Special Concern, USFWS Bird of Conservation Concern. High Potential. The yellow warbler is a neotropical migrant bird that is widespread in North America. The Brewster's (*brewsteri*) subspecies is a summer resident and represents the vast majority of yellow warblers that breed in California, including on the central California coastal slope. In California west of the Central Valley, breeding habitat typically consists of dense riparian vegetation near water (including wet meadows), with willows especially being favored (Shuford and Gardali 2008). Riparian habitat along the Salinas River adjacent to the RPA Footprint features dense riparian vegetation, including willows, and this species has a high potential to nest there.

Yellow-breasted chat (*Icteria virens*). CDFG Species of Special Concern. Moderate Potential. The yellow-breasted chat is an uncommon summer resident and migrant in much of California. It is a large warbler that breeds in dense, brushy thickets and tangles near water, usually in riparian areas. Riparian habitat along the Salinas River within the RPA Area, adjacent to the RPA Footprint features areas with a dense understory of suitable vegetation, including blackberry and California wild rose, and this species has a moderate potential to nest there.

C. Special Status Reptiles

Pacific pond turtle (*Actinemys marmorata*). CDFG Species of Special Concern. Moderate Potential. The Pacific pond turtle is the only freshwater turtle native to northern and central California, and is associated with rivers, streams, lakes, and ponds throughout much of the state. Typical aquatic habitat features include stagnant or low-

gradient water containing aquatic vegetation, and aerial basking sites such as logs, rocks, and mud banks. Adult females excavate nests in riparian and higher elevation areas in the spring or early summer. Nest sites are generally located on unshaded slopes, and require friable soil that is sufficiently dry to promote successful egg development (Holland 1994). The young generally hatch and overwinter in the nest (Jennings and Hayes 1994, Reese and Welsh 1997). At least under some ecological conditions, pond turtles may regularly use terrestrial habitats (Reese and Welsh 1997). While some populations are active principally in the spring and aestivate during the rest of the year, turtles along the central California coast may be active year-round (Jennings and Hayes 1994). This species is a dietary generalist, subsisting principally on invertebrates as well as plant material and carrion.

The portions of the Salinas River within the RPA Area, adjacent to the RPA Footprint do not provide optimal aquatic habitat for Pacific pond turtle. The pools are too shallow during periods of minimal flow to provide adequate refuge, whereas water flow may be too strong during typical winter and spring flows. However, deeper overflow pools and other backwater areas may provide typical habitat during this period. Sandy terraces and washes featuring riparian and scrub vegetation adjacent to the river provide suitably dry, friable soils and likely provide high-quality breeding habitat. Because there are recent documented occurrences in the Salinas River both upstream and downstream of the RPA Area (CDFG 2012), there is a moderate potential for occurrence of this species within aquatic and terrestrial habitats adjacent to the RPA Footprint. Given its steep topography, any pond turtles present are unlikely to wander into the RPA Footprint itself.

Two-striped garter snake (*Thamnophis hammondi*). CDFG Species of Special Concern. Moderate Potential. The two-striped garter snake is found on the coastal slope and associated foothills from central California through portions of Baja California. This species is highly aquatic, and typically inhabits perennial and intermittent streams with rocky beds bordered by willow thickets or other dense vegetation (Jennings and Hayes 1994). Individuals basking on stream banks and rocks generally flee into the water when threatened. During the winter, upland habitats adjacent to riparian areas such as grasslands and scrub are also utilized (Jennings and Hayes 1994). Fish, amphibians (including larvae) and invertebrates provide forage. The portions of the Salinas River within the RPA Area, adjacent to the RPA Footprint provide perennial aquatic habitat, associated areas of riparian vegetation, and small fishes for forage. Riparian and other vegetated habitats along the river may be used more frequently during the winter when water flow is at a maximum.

D. Special Status Fishes

Steelhead (*Oncorhynchus mykiss irideus*) - south/central California coast DPS. Federal Threatened, CDFG Species of Special Concern. Present. The federal listing for this distinct population segment (DPS) refers to runs in coastal basins from the Pajaro River south to, but not including the Santa Maria River. Steelhead are anadromous and typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for two or three years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Steelhead adults typically spawn between December and June. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble

substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.

The status of steelhead in the upper Salinas River drainage is summarized by Funk and Morales (2002). Although populations are greatly diminished from historic levels, the drainage continues to support steelhead runs in several tributaries of the Salinas River including some upstream of the RPA Area (e.g. Santa Margarita Creek). Thus, steelhead are treated as present in the upper Salinas River mainstem. Portions of the river within the RPA Area are unlikely to provide any suitable spawning habitat, but do provide in- and out-migration habitat for transient individuals. Presence is likely restricted to relatively narrow windows during the respective migration periods.

E. Critical Habitat

South-central California coast steelhead Critical Habitat. Present. The upper Salinas River is considered Critical Habitat for the south-central steelhead DPS (Federal Register 50 CFR Part 226; Salinas River Hydrologic Unit 3309) (Figure 6). There are four PCEs that are considered for the conservation and survival of this DPS: 1) freshwater spawning sites, 2) freshwater rearing sites, 3) freshwater migration corridors, and 4) estuarine areas. The RPA Footprint does not include steelhead Critical Habitat, but the RPA Area does include 3,669 linear feet (5.7 acres) of the Salinas River.

Primary Constituent Elements are those sites and habitat components that support one or more life stages including:

1. Freshwater spawning site with water quantity and quality conditions and substrate supporting spawning, incubation, and larval development.
2. Freshwater rearing sites with
 - a. water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility,
 - b. water quality and forage supporting juvenile development, and
 - c. -natural cover such as shade, submerged and overhanging large wood, log jams, and beaver dams, aquatic veg, large rocks and boulders, side channels, and undercut banks.
3. Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic veg, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival.
4. Estuarine areas free of obstruction and excessive predation with:
 - a. -water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater;
 - b. -natural cover such as submerged and overhanging large wood, aquatic veg, large rocks and boulders, side channels; and
 - c. -juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation.

This section of the Salinas River within the RPA Area does not contain the PCEs for spawning and rearing sites because it lacks the water quantity and quality conditions and other habitat components necessary including substrate and incubation habitat, nor are there any estuarine areas. However, it is a freshwater migration corridor free of obstruction and steelhead are very likely to be present during migration periods.

5.0 IMPACT ASSESSMENT AND MITIGATION

Potential impacts to sensitive habitats and special status species within the RPA Area may occur as a result of quarry extension implementation. Potential quarry extension impacts and mitigation to reduce potential impacts are fully detailed in the following sections.

5.1 Sufficiency of Biological Data

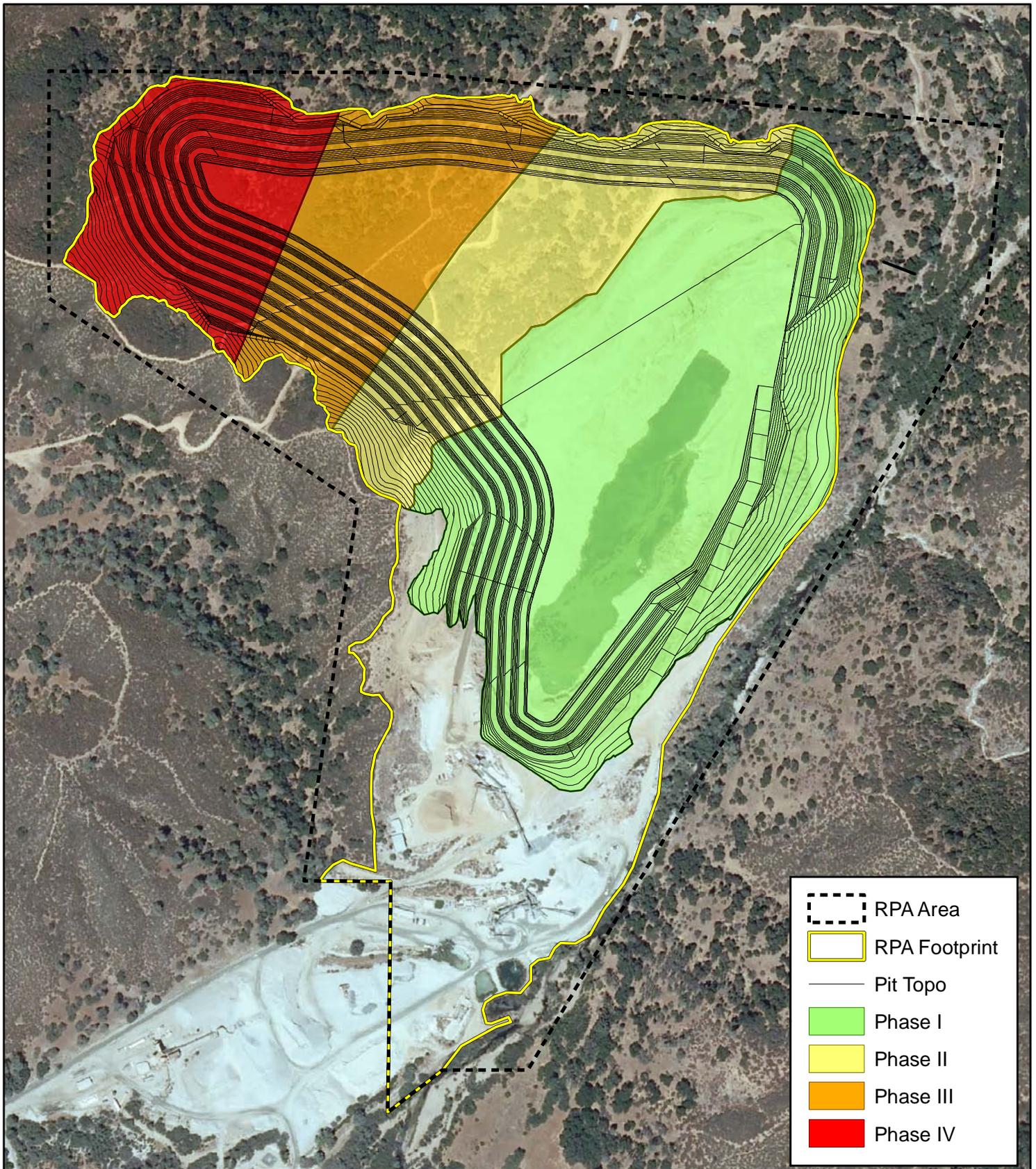
The results of the Biological Resources Assessment and *Preliminary Determination of Waters of the U.S., Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012a) contain sufficient information to accurately quantify potential impacts to sensitive communities that may occur in the RPA Area and develop appropriate avoidance and minimization and/or mitigation measures for these potential impacts. Two additional studies have been prepared that describe precise impacts analysis for oak woodlands and special status plant species. These studies are described below.

Oak woodlands within the RPA Area are described in the *Oak Woodland Assessment Report, Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012b). This study provides quantitative estimates of oak woodland resources within the RPA Area including total number of oak trees. This estimate is based on a sample survey designed to provide an 80 percent confidence level, as required by SMARA revegetation standards. Impacts analysis and mitigation development is therefore based on this level of confidence.

Floristic-level plant surveys were conducted in the RPA Area in 2008. The surveys consisted of three survey dates that coincided with peak blooming periods of potentially occurring special status plant species. Surveys were conducted on March 27, May 21, and August 20, 2008; no special status species were observed in the RPA Area. Based on guidance from CDFG (2009) the results of floristic surveys in forested areas may be valid for up to five years, and the results of surveys conducted in more dynamic systems such as grasslands may be valid for a shorter period. Based on this guidance, floristic-level plant surveys are being repeated within the RPA in 2012. Three survey dates will coincide with peak blooming periods of potentially occurring special status species. The first of the three surveys was completed on March 21, 2012, and two additional survey dates are planned in May and August, 2012. To date, no special status plant species have been observed in the RPA Area. All floristic-level surveys are fully described in the *Rare Plant Survey Report, Santa Margarita Quarry, San Luis Obispo County, California* (WRA 2012c). Should special status plant species be observed in May or August 2012 survey dates, results will be prepared and submitted as an addendum to the *Rare Plant Survey Report*.

5.2 Brief Quarry Extension Description

The proposed project is the modification of an existing Conditional Use Permit (CUP) and RPA for an extension of the existing quarry operations into approximately 38.4 acres of undisturbed slopes to the west of the existing quarry pit (Figure 2). Extension of the quarry operations will occur in four discrete phases (Figure 7). No change in production capability or intensity is proposed beyond currently permitted levels. Reclamation of the RPA Footprint will occur when mining operations at the quarry cease.



	RPA Area
	RPA Footprint
	Pit Topo
	Phase I
	Phase II
	Phase III
	Phase IV

Figure 7. RPA Phasing

Santa Margarita Quarry
 San Luis Obispo County, California



Date: April 2012
 Aerial: 2010 NAIP
 Map By: Michael Rochelle

No change in production capability or intensity is proposed beyond currently permitted levels. Reclamation of the RPA Footprint will be completed when the lifespan of the quarry is complete.

5.3 Potential Impacts

Potential impacts to each sensitive resource observed or potentially occurring within the RPA Area are described below. Measures to avoid, reduce or compensate for potential impacts to each sensitive resource are described in Section 5.3.

5.3.1 Sensitive biological communities

5.3.1.1 Non-wetland “other waters”

A. Potential permanent impacts

Approximately 1,395 linear feet (0.08 acre) of ephemeral stream within the RPA Footprint will be permanently removed as a result of the proposed quarry extension.

B. Temporary impacts

The ephemeral stream within the RPA Footprint will be completely removed as a result of the proposed quarry extension; therefore no temporary impacts are expected.

Based on available data, a pit lake is not likely to be present at post-mining conditions assuming the expanded pit does not develop direct hydraulic communication with the Salinas River beyond that currently observed. However, it is anticipated that seasonal ponding will occur at the post-mining quarry floor and that, in normal rainfall years, the majority of the ponding will evaporate during over the dry summer and fall months (i.e. May through October). No surface discharge of ponded water from the quarry pit is anticipated based on the water balance estimate (Golder Associates 2012).

C. Potential indirect impacts

Potential indirect impacts may include increased levels of sediments and/or runoff entering the Salinas River, approximately 600 feet north of the RPA Area, during quarry extension.

No potential indirect impacts to beneficial uses of groundwater or water balance are expected from the quarry extension (Golder Associates 2012). The quarry pit is not located within a major groundwater basin. The primary groundwater basins are associated with the more permeable alluvial deposits located east of the quarry as opposed to the granitic bedrock present at the quarry, and based on available information, there is minimal domestic use of the granitic aquifer in the vicinity of the quarry. The occurrence of groundwater in the granite is exclusively within secondary openings such as joints, fractures, shear zones and faults. Well yields in the granite are expected to be very low, in the range of a few gallons per minute (gpm) to tens of gpm and are restricted to local domestic use. Water balance and steady state analytical solutions for current and post-mining site conditions indicate that current and future groundwater inflow into the pit is minimal.

5.3.1.2 Oak woodland

A. Potential permanent impacts

All impacts to oak woodland are expected to be temporary; no permanent impacts to oak woodland are expected.

B. Temporary impacts

The proposed quarry extension will result in removal of approximately 11.2 acres of mature oak woodland within the RPA Footprint, which may include approximately 776 individual trees according to the assessment by WRA (2012b). Oak woodland removal within the RPA Footprint will occur as each phase is grubbed in preparation for overburden removal and mineral extraction. Although oak woodland will be revegetated as part of quarry reclamation (Enviromine 2012), temporary impacts may occur because mature oak woodland will be replaced with young oak woodland plantings.

C. Potential indirect impacts

Removal of oak woodlands as phased quarry extension progresses may result in indirect impacts to adjacent oak woodlands, especially where oak woodlands to be removed are contiguous with woodlands not proposed for removal. These indirect impacts are known as “edge effects” and can result in increased exposure to sun, wind, and other elements along the edge of oak woodlands. Increased environmental exposure can result in tree mortality or decline, encroachment of invasive species, and increased human intrusion.

Although it has not been observed to date within the RPA Area, the nearest occurrence of sudden oak death is located approximately six miles northwest of the RPA Area, near Atascadero (COMTF 2012). Phased grubbing within the RPA Area may spread the pathogen that causes sudden oak death if it is present, especially if grubbing is done during wet weather. Similarly, other oak pests such as beetles can be spread by removal of wood material from the site.

5.3.1.3 Riparian woodland

A. Potential permanent impacts

Riparian habitat is restricted to the Salinas River corridor, located in the eastern portion of the RPA Area. Approximately 0.3 acre of riparian woodland has colonized the gravel substrates within the quarry facilities area in the southeast portion of the RPA Area. Reclamation activities could potentially remove some or all of this woodland, however, any impacted riparian woodland will be restored during reclamation; therefore, no permanent impacts to riparian woodland are expected.

B. Temporary impacts

Any riparian woodland impacted during reclamation activities will be restored during reclamation activities. Impacts would not be incurred until the active lifespan of the quarry is exhausted and grading for final reclaimed slopes is commenced. Therefore, any impacted riparian woodland would be replaced essentially as impacts are incurred.

Temporary impacts can be expected as replaced riparian woodland grows to the mature condition of the removed riparian woodland.

C. Potential indirect impacts

Due to the small amount and temporary nature of potential impacts to riparian woodlands, potential indirect impacts are expected to be insignificant.

5.3.2 Special status plant species

A. Potential permanent impacts

No special status plant species have been observed within the RPA Area to date. However, if special status plant populations are observed within or directly adjacent to the RPA Footprint during additional floristic surveys planned in 2012, these populations may be removed before planned extension of quarry operations.

B. Temporary impacts

If special status plant species are observed within the RPA Footprint, temporary impacts resulting from quarry extension are not expected. Because the factors that make plant species rare (e.g., unusual soils, microclimates, or water regimes) are generally poorly understood, site restoration is generally unproven and usually unsuccessful (CNPS 1998). Therefore, restoration of temporary impacts to habitat that supports rare plant species is not likely to restore populations of rare plants that are removed. For this reason, any impacts to rare plant populations including vegetation grubbing or soil disturbance are generally regarded as a permanent impact.

C. Potential indirect impacts

If special status plant species are observed within the RPA Area but outside of the RPA Footprint, indirect impacts to the populations may be expected depending on the populations' proximity to planned disturbance. Indirect impacts to special status species could include degradation of habitat due to stormwater runoff and sedimentation, introduction of invasive species, alteration of hydrologic regime, and increased or introduced disturbance due to human intrusion into habitat.

5.3.3 Special status wildlife species

5.3.3.1 Special status bats

A. Potential permanent impacts

If special status bat species day roost within the RPA Footprint during vegetation removal and grubbing, bats may suffer mortality or injury. If maternity roosts are present within the RPA Footprint, vegetation removal and grubbing may also result in the mortality of bat young and a subsequent reduction in reproductive success.

B. Temporary impacts

The quarry extension will result in the temporary removal of 11.2 acres of potential woodland bat roost habitat and 37.1 acres of potential woodland and chaparral bat foraging habitat within the RPA Footprint. Because bats are generally capable of travelling to forage and surrounding areas offer large acreages of potential foraging habitat similar to that found in the extension area, temporary impacts to foraging habitat are expected to be insignificant.

C. Potential indirect impacts

Vegetation removal, grubbing, blasting in undeveloped areas and other quarry extension-related activities within the RPA Footprint may result in the disturbance of roosting bats in surrounding portions of the RPA Area and adjacent habitats due to noise or other indirect disturbances. Disturbance to bat maternity roosts in surrounding areas may also result in the mortality of bat young and a subsequent reduction in reproductive success. Noise disturbance to bats from blasting within the quarry as part of regular operations is not likely to be significant due to the relative short duration of the potential disturbance.

5.3.3.2 Special status and MBTA-covered birds

A. Potential permanent impacts

If Species of Special Concern birds and/or those protected by the MBTA and CDFG codes are nesting within the RPA Footprint during vegetation removal and grubbing and blasting, adults, young and/or eggs may suffer direct mortality or injury. Because of their dispersal capabilities, quarry extension activities within the RPA Footprint are unlikely to result in direct mortality to adult birds that are not nesting.

B. Temporary impacts

The quarry extension will result in the temporary removal of 37.1 acres of potential woodland, chaparral and grassland avian nesting and foraging habitat. Because most birds are capable of travelling to forage and surrounding areas offer large acreages of potential foraging habitat similar to that found in the RPA Footprint, temporary impacts to foraging habitat are expected to be insignificant.

C. Potential indirect impacts

Vegetation removal and grubbing, blasting in undeveloped areas and other quarry extension-related activities within the RPA Footprint and adjacent habitats may result in the disturbance of nesting birds in surrounding areas (both within and outside of the RPA Area) due to noise, increased artificial lighting or other indirect disturbances. Such disturbance may result in the mortality of bird young and/or eggs due to nest abandonment. Noise disturbance to birds from blasting within the quarry as part of regular operations is not likely to be significant due to the relative short duration of the potential disturbance.

5.3.3.3 Golden eagle

A. Potential permanent impacts

If golden eagles are nesting within the RPA Footprint during vegetation removal and grubbing and blasting, adults, young and/or eggs may suffer direct mortality or injury. Because of their dispersal capabilities, quarry extension activities within the RPA Footprint are unlikely to result in direct mortality to golden eagle adults that are not nesting.

B. Temporary impacts

The quarry extension will result in the temporary removal of 11.2 acres of potential nesting woodland habitat and 37.1 acres of woodland, chaparral, and grassland foraging habitat for golden eagle. Because golden eagles are capable of traveling long distances to forage, and surrounding areas offer large acreages of potential foraging habitat similar to that found in the RPA Footprint, temporary impacts to foraging habitat are expected to be insignificant.

C. Potential indirect impacts

Vegetation removal and grubbing, blasting in undeveloped areas and other quarry extension-related activities within the RPA Footprint may result in the disturbance of nesting golden eagles in surrounding areas within 0.25 miles of the impact (both within and outside of the RPA Area) due to noise or other indirect disturbances. Such disturbance may result in the mortality of bird young and/or eggs due to nest abandonment. Noise disturbance to golden eagle from blasting within the quarry as part of regular operations is not likely to be significant due to the relative short duration of the potential disturbance.

5.3.3.4 Special status reptiles

A. Potential permanent impacts

If coast horned lizard and/or silvery legless lizard are present within the RPA Footprint during vegetation removal and grubbing and blasting, individuals (including eggs) may suffer direct mortality or injury. Quarry extension-related vehicle and equipment traffic within and adjacent to the RPA Area during vegetation clearing may also result in the direct mortality or injury of individual lizards. Mortality due to vehicular traffic on quarry roads during normal daytime operations is likely to be insignificant due to absence of available habitat in active quarry areas. The quarry extension will result in permanent removal of 1,395 linear feet (0.08 acre) of ephemeral stream habitat which supports coast horned lizard and silvery legless lizard.

The quarry extension will completely avoid direct impacts to habitats outside of the RPA Footprint, including the Salinas River and adjacent habitats which support species such as Pacific pond turtle and two striped garter snake.

B. Temporary impacts

The quarry extension will result in the temporary removal of 37.1 acres of potential oak woodland, chaparral, and grassland habitat for coast horned lizard. The quarry extension could also result in the temporary removal of 0.3 acre of riparian woodland habitat for coast horned lizard and silvery legless lizard during reclamation activities; however, this area contains disturbed gravel substrate and is not suitable for two striped garter snake or Pacific pond turtle. Therefore, no temporary impacts to these two special status reptiles are expected.

C. Potential indirect impacts

Within the RPA Area, no potential indirect impacts to coast horned and silvery legless lizards are expected due to quarry extension activities. Due to the availability of habitat surrounding impacted areas and lack of suitable habitat for these species to the west or south of the RPA Footprint, the quarry extension would not eliminate movement corridors for adjacent populations of coast horned or silvery legless lizards.

Potential indirect impacts to aquatic habitats in the RPA Area include increased levels of sediments entering ephemeral streams during operations and perhaps eventually the Salinas River, and alterations of the hydrologic regime within the Salinas River watershed. These effects are likely to be insignificant to species utilizing aquatic habitats outside of the RPA Footprint, but may result in reduced availability of aquatic foraging habitat for two striped garter snake and Pacific pond turtle.

5.3.3.5 Steelhead

South/central coast DPS steelhead is considered present within the upper Salinas River. Although no spawning is expected to occur within the river's mainstem in the vicinity of the RPA Area, spawning is known to occur in tributary streams upstream of the RPA Area and the river provides migration habitat to and from these areas.

A. Potential permanent impacts

The quarry extension will completely avoid direct impacts to the Salinas River and adjacent habitats. Therefore, no permanent impacts to steelhead are expected.

B. Potential temporary impacts

The quarry extension will completely avoid direct impacts to the Salinas River and adjacent habitats. Therefore, no temporary impacts to steelhead are expected.

C. Potential indirect impacts

Vegetation removal and grubbing and blasting within the RPA Area may indirectly impact the Salinas River. Potential indirect impacts include increased levels of sediments entering the Salinas River, and alterations of the hydrologic regime within the Salinas River watershed. These potential impacts may adversely affect the in- and out-migration of adult steelhead, as well as the out-migration of steelhead smolts

5.3.3.6 CRLF Critical Habitat

The RPA Area lies directly adjacent to and includes 1.94 acres of CRLF Critical Habitat Unit SLO-3, of which 0.18 acre is within the RPA Footprint. While CRLF is unlikely to be found within or directly adjacent to the RPA Area, potential impacts to Critical Habitat must be considered regardless of presence or absence of the species. Unit SLO-3 encompasses a broad area located south of the RPA area consisting primarily of oak woodland and grassland habitats. The portion of the Unit that lies within the RPA area is just north of the ridgeline and includes a steep, rocky face covered in dense chamise chaparral habitat lacking any of the PCEs for CRLF; this portion of the Unit does not provide upland or dispersal habitat for CRLF due to the lack of available aquatic habitat within the RPA Area.

A. Potential permanent impacts

All impacts to California red-legged frog Critical Habitat within the RPA Area will be temporary in nature. Therefore, no permanent impacts are expected.

B. Temporary impacts

Quarry extension will result in temporary removal of 0.18 acre of chamise-chaparral habitat within CRLF Critical Habitat Unit SLO-3, which will be reclaimed at the end of quarry activities. No aquatic habitat within unit SLO-3 will be impacted.

C. Potential indirect impacts

Potential indirect impacts to other portions of the Unit are not likely to be significant due to the absence of PCEs in portions of the Unit within the RPA Area (excluding the RPA Footprint). Furthermore, topographic conditions effectively restrict potential sediment discharge and other indirect quarry extension-related impacts to the RPA Area-side of the ridgeline that forms the rough boundary of Unit SLO-3. In addition, while quarry extension-related vehicles and equipment will access the RPA Area primarily via lands contained within Unit SLO-3, only pre-existing roads will be used for this purpose and thus no potential indirect impacts related to site access are expected.

5.3.3.7 Steelhead Critical Habitat

The portion of the Salinas River in the RPA Area is Critical Habitat for south/central coast DPS steelhead; Critical Habitat is not present within the RPA Footprint. Potential impacts to the Salinas River must therefore be considered regardless of the temporal presence or absence of migrating steelhead.

A. Potential permanent impacts

The quarry extension will completely avoid direct impacts to the Salinas River. Therefore, no permanent impacts to steelhead Critical Habitat are expected.

B. Potential temporary impacts

The quarry extension will completely avoid direct impacts to the Salinas River. Therefore, no temporary impacts to steelhead Critical Habitat are expected.

C. Potential indirect impacts

Vegetation removal and grubbing and blasting within the RPA Area may indirectly impact the Salinas River. Potential indirect impacts include increased levels of sediments entering the Salinas River, and alterations of the hydrologic regime within the Salinas River watershed. These potential impacts may adversely affect the suitability of the river as migration and dispersal habitat for steelhead and therefore, would constitute an indirect impact to Steelhead Critical Habitat.

5.4 Proposed Mitigation Measures

Habitat modification and resource extraction within the RPA Footprint will be conducted in spatially and temporally discreet phases, avoiding the concentration of total impacts in space and time. Additionally, the RPA Footprint will be reclaimed and re-vegetated after the lifespan is exhausted and should again provide habitat for sensitive biological communities, plants and wildlife under future reclaimed conditions.

5.4.1 Sensitive biological communities

5.4.1.1 Non-wetland "other waters"

Summary of potential impacts

- The proposed quarry extension will permanently remove approximately 1,395 linear feet (0.08 acre) of ephemeral stream within the RPA Footprint.
- Temporary impacts may include increased levels of sediments entering the ephemeral stream during operations. These sediments could eventually enter the Salinas River.
- No potential impacts to beneficial uses of groundwater or water balance are expected from the quarry extension (Golder Associates 2012).

PM 1 Proposed mitigation

- *PM 1.1* Prior to proposed removal of jurisdictional waters, regulatory permits may need to be obtained, subject to consultation and coordination with the appropriate agencies. Any mitigation required will be determined in coordination with the agencies.
- *PM 1.2* A minimum setback of approximately 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.
- *PM 1.3* A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.

5.4.1.2 Oak woodland

Summary of potential impacts

- The proposed quarry extension will remove approximately 11.2 acres of oak woodland within the RPA Footprint (an estimated 776 trees). Oak woodland removal will occur in phases.
- Oak woodland removal may result in increased edge effects: increased exposure to sun, wind, and other elements along the edge of oak woodlands.
- The proposed quarry extension may spread the pathogen that causes sudden oak death if it is present. Similarly, other oak pests such as beetles can be spread by removal of wood material from the site.

PM 2 Proposed mitigation

- *PM 2.1* Removal of oak woodland will occur incrementally within each phase to reduce impacts in both space and time.
- *PM 2.2* The proposed quarry extension will temporarily impact approximately 11.2 acres of oak woodland, in four phases over an approximately 38-year period. Public Resources Code section 21083.4 requires the County to determine whether these impacts constitute a significant effect on oak woodlands, and if so, to require mitigation using conservation easements, replanting oaks, contributing to an oak woodland conservation fund, or other methods developed by the County. Appropriate mitigation for these impacts will be determined in consultation with the County during the application review process. There is opportunity for onsite oak woodland preservation and enhancement on adjacent parcels in the event that mitigation is called for.
- *PM 2.3* To reduce the potential for spread of sudden oak death and other pests, all grubbed woody material will be chipped, spread out to dry, and disposed of on-site or otherwise responsibly disposed of.

5.4.1.3 Riparian woodland

Summary of potential impacts

- Approximately 0.3 acre of riparian woodland that has colonized the gravel substrates of the quarry processing facilities is located within the RPA Footprint; reclamation activities within the RPA Footprint could potentially remove some or all of this vegetation.

PM 3 Proposed mitigation

- *PM 3.1* Riparian vegetation located within the RPA Footprint will be avoided during reclamation. If avoidance is not possible, any riparian woodland removed will be replaced during reclamation activities through replanting activities.
- *PM 3.2* Riparian vegetation is generally regulated by the CDFG under Section 1602 of Fish and Game Code and due to its association with steelhead Critical Habitat it is within NMFS jurisdiction. If this vegetation cannot be avoided during reclamation activities, consultation with appropriate agencies may be needed.

5.4.2 *Special status plant species*

Summary of potential impacts

- No special status plant species have been observed within the RPA Area to date. However, if special status plant populations are observed within or directly adjacent to the RPA Footprint during additional floristic surveys planned in 2012, these populations could be removed by planned extension of quarry operations.

PM 4 *Proposed mitigation*

- *PM 4.1* If special status plant species are observed within the RPA Area during 2012 surveys, proposed mitigation should include avoidance of the population.
- *PM 4.2* If avoidance is not feasible, additional mitigation can include conservation of populations on adjacent lands through use of a conservation easement or similar instrument or buying credits in a mitigation bank, if available.

5.4.3 *Special status wildlife species*

5.4.3.1 *Special status bats*

Summary of potential impacts

- Within the RPA Footprint, direct mortality or injury may occur to individual bats, including young if maternity roosts are present, due to quarry extension activities.
- The proposed quarry extension would result in temporary loss of 11.2 acres of potential roosting habitat and 37.1 acres of potential foraging habitat for special status bat species.
- Vegetation removal and grubbing, blasting in undeveloped areas, and other quarry extension-related activities within the RPA Footprint may result in the disturbance of roosting bats in surrounding areas within the RPA Area due to noise or other indirect disturbances.

PM 5 *Proposed mitigation*

- *PM 5.1* The removal of potential bat roost habitat (i.e., large trees, snags, vertical rock faces or rockpiles with interstitial crevices) will take place from September 1 to October 31 when possible to avoid potential impacts to bat maternity or hibernation roosts.
- *PM 5.2* If the September 1 to October 31 work window is not feasible, prior to removal of potential bat roost habitat, pre-construction bat roost surveys will be conducted in the RPA Area within 100 feet of the proposed disturbance area, to determine if bats are occupying roosts; work should be completely avoided November 1 to March 31 when bats are hibernating.
- *PM 5.3* If bats are present, a suitable buffer around each occupied roost site will be instated, or bats will be excluded from the roost using methods recommended by a qualified biologist.

5.4.3.2 Special status and MBTA-covered birds

Summary of potential impacts

- Within RPA Footprint, direct mortality or injury of individual birds (principally young and/or eggs during the breeding season) may occur due to quarry extension activities.
- The proposed quarry extension would result in temporary loss of 37.1 acres of potential avian breeding and foraging habitat.
- Outside of the RPA Footprint, direct mortality of young and/or eggs resulting from nest abandonment may occur due to indirect disturbances (e.g., noise).

PM 6 Proposed mitigation

- *PM 6.1* The removal of potential breeding bird habitat (i.e., vegetation) or initial ground disturbance will take place from September 1 to January 31 to avoid potential impacts to nesting birds.
- *PM 6.2* If the September 1 to January 31 work window is not feasible, prior to removal of potential breeding bird habitat or initial ground disturbance, pre-construction breeding bird surveys will be conducted covering the impacted area(s) and surrounding areas within 200 feet. If work occurs from February 1 to June 15, pre-construction surveys will be performed within 14 days prior to such activities; if work occurs from June 16 to August 31, pre-construction surveys will be performed within 30 days prior to such activities.
- *PM 6.3* If nesting birds are found during pre-construction surveys, a suitable exclusion buffer will be instated around each active nest and maintained until the nest is inactive. Buffer sizes will be determined by a qualified biologist and will vary between species and disturbance contexts surrounding nests; buffers will be larger for special status species.

5.4.3.3 Golden eagle

Summary of potential impacts

- Within the RPA Footprint, direct mortality or injury of golden eagle individuals (principally young and/or eggs during the breeding season) may occur due to quarry extension activities.
- Outside of the RPA Footprint, direct mortality of golden eagle young and/or eggs resulting from nest abandonment may occur due to indirect disturbances (e.g. blasting).
- The proposed quarry extension would result in temporary loss of 11.2 acres of potential golden eagle breeding habitat and 37.1 acres of potential foraging habitat.

PM 7 Proposed mitigation

- *PM 7.1* The removal of vegetation or initial ground disturbance will take place from September 1 to January 31 to avoid potential impacts to golden eagle.
- *PM 7.2* If the September 1 to January 31 work window is not feasible, prior to removal of vegetation or initial ground disturbance, pre-construction golden eagle nest surveys will be conducted covering the impacted area(s) and surrounding areas within 0.25 mile. If work occurs from February 1 to June 15, pre-construction surveys will be performed within 14 days prior to such activities; if work occurs from June 16 to August 31, pre-construction surveys will be performed within 30 days prior to such activities.
- *PM 7.3* If nesting golden eagles are found during pre-construction surveys, an exclusion buffer of 0.25 mile will be instated around each active nest and maintained until the nest is inactive. Buffers may be reduced in size if a qualified biologist determines that a reduced buffer will not result in adverse impacts and there is concurrence by CDFG.

5.4.3.4 Special status reptiles

Summary of potential impacts

- Within the RPA Footprint, directly mortality or injury of individuals may occur due to vegetation removal, grubbing or ground disturbance.
- The proposed quarry extension would result in permanent removal of 1,395 linear feet (0.08 acre) of potential ephemeral stream habitat for coast horned lizard and silvery legless lizard and temporary loss of 37.1 acres of potential habitat for these species.
- The proposed quarry extension may result in degradation of potential aquatic and riparian habitat for Pacific pond turtle and two-striped garter snake along the Salinas River due to sediment input and/or hydrological alterations.

PM 8 Proposed mitigation

- *PM 8.1* Prior to the removal of vegetation or initial ground disturbance, pre-construction surveys for coast horned lizard and silvery legless lizard will be conducted by a qualified biologist within each phased area of the quarry extension. Survey effort will be focused on microhabitats most suitable for each species. All individuals of both species captured will be relocated to suitable habitat outside of the RPA Area.
- *PM 8.2* During all vegetation removal and grubbing activities, a qualified biological monitor (or monitors) will be present to supervise the work, and capture and relocate as many individuals of both special status reptile species as is feasible. The biological monitor(s) will have the authority to temporarily halt work to avoid impacts to special status reptiles or other protected biological resources.
- *PM 8.3* A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.
- *PM 8.4* A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.

5.4.3.5 Steelhead

Summary of potential impacts

- The proposed quarry extension may result in adverse affects on steelhead migration due to increased sedimentation and/or hydrological alterations in the Salinas River.

PM 9 Proposed mitigation

- *PM 9.1* A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.
- *PM 9.2* A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented. Best management practices will prevent debris and increased sediment loads from entering the river and obstructing or degrading the migration corridor.
- *PM 9.3* Consultation with NMFS may be required for potential indirect impacts to steelhead.

5.4.3.6 CRLF Critical Habitat

Summary of potential impacts

- The quarry extension would result in temporary removal of 0.18 acre of presumably unoccupied upland habitat (chaparral) within CRLF Critical Habitat Unit SLO-3.

PM 10 Proposed mitigation

- *PM 10.1* The temporarily-impacted Critical Habitat is within Phase Three of the quarry extension, where pit excavation and resource extraction are estimated to occur from approximately 2056 to 2076.
- *PM 10.2* The 0.18 acre of CRLF Critical Habitat will be reclaimed and re-vegetated by approximately 2081, after resources are extracted, and should resemble its pre-impact state under future conditions.
- *PM 10.3* Informal consultation with USFWS will be required; however, no mitigation for removal of Critical Habitat is required given that PCEs are not present, and CRLF is not likely to be present (Phillips, Jeff pers. comm.).

5.4.3.7 Steelhead Critical Habitat

Summary of potential impacts

- The proposed quarry extension may result in adverse affects on steelhead Critical Habitat (i.e., the Salinas River) due to increased sedimentation and/or hydrological alterations.

PM 11 *Proposed mitigation*

- *PM 11.1* A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.
- *PM 11.2* A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.
- *PM 11.3* Consultation with NMFS may be required for potential indirect impacts to steelhead Critical Habitat.

6.0 SUMMARY OF FINDINGS

The RPA Area is comprised of 126.1 acres of an active quarry pit, associated processing facilities, and surrounding undeveloped land. Within the RPA Area, the RPA Footprint is comprised of 94.5 acres, and represents the extent of current and proposed project ground disturbance (Figure 2). The undeveloped land surrounding the existing quarry pit and facilities contains mixed chaparral, oak woodland, and riparian habitats, including a portion of the Salinas River.

Three sensitive biological communities – “other waters,” including both ephemeral and perennial streams, oak woodlands and riparian woodlands – were identified within the RPA Area; perennial streams are not present within the RPA Footprint. Twenty special status plant species and 13 special status wildlife species have a moderate or high potential to occur within the RPA Footprint; one special status wildlife species is present. Four additional special status plant species and six additional special status wildlife species have potential to occur within the RPA Area outside of the RPA Footprint, primarily within aquatic and riparian habitats associated with the Salinas River.

The proposed project is the modification of an existing Conditional Use Permit (CUP) and RPA for an extension of the existing quarry operations into approximately 38.4 acres of undisturbed slopes to the west of the existing quarry pit (Figure 2). Extension of the quarry operations will occur in four discrete phases. No change in production capability or intensity is proposed beyond currently permitted levels. Reclamation of the RPA Footprint will occur when mining operations at the quarry cease.

A summary of potentially significant impacts to biological resources within the RPA Area with avoidance, minimization, and mitigation measures prescribed to reduce significant impacts as described in Section 5.0 is presented in Table 2.

Table 2. Summary of Potential Significant Impacts and Mitigation for Biological Resources in the RPA Area				
	IMPACTS			MITIGATION MEASURES
	Permanent	Temporary	Indirect	
5.4.1 Sensitive Biological Communities				
5.4.1.1 Non-wetland "Other Waters"	Removal of 1,395 linear feet (0.08 acre) of ephemeral stream	None	Potential increase in sediment and/or runoff entering Salinas River	<p><i>PM 1.1</i> Prior to proposed removal of jurisdictional waters, regulatory permits may need to be obtained, subject to consultation and coordination with the appropriate agencies. Any mitigation required will be determined in coordination with the agencies.</p> <p><i>PM 1.2</i> A minimum setback of approximately 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.</p> <p><i>PM 1.3</i> A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.</p>
5.4.1.2 Oak woodland	None	Removal of 11.2 acres (approximately 776 trees)	Edge effects' to adjacent oak woodlands, spread of SOD if present	<p><i>PM 2.1</i> Removal of oak woodland will occur incrementally within each phase to reduce impacts in both space and time.</p> <p><i>PM 2.2</i> Appropriate mitigation for impacts to oak woodlands will be determined in consultation with the County during the application review process. There is opportunity for onsite oak woodland preservation and enhancement on adjacent parcels in the event that mitigation is called for.</p> <p><i>PM 2.3</i> To reduce the potential for spread of sudden oak death and other pests, all grubbed woody material will be chipped, spread out to dry, and disposed of on-site or otherwise responsibly disposed of.</p>
5.4.1.3 Riparian woodland	None	Removal of 0.3 acre	None	<p><i>PM 3.1</i> Riparian vegetation located within the RPA Footprint will be avoided during reclamation. If avoidance is not possible, any riparian woodland removed will be replaced during reclamation activities through replanting activities.</p> <p><i>PM 3.2</i> Riparian vegetation is generally regulated by the CDFG under Section 1602 of Fish and Game Code. If this vegetation cannot be avoided during reclamation activities, a CDFG Section 1602 Lake and Streambed Alteration Agreement may need to be obtained prior to any impacts.</p>
5.4.2 Special Status Plants*				
Special status plant species <i>Survey results pending; scheduled for May and August, 2012</i>	None	None	If present, stormwater runoff and sedimentation, introduction of invasive species, alteration of hydrologic regime, and human intrusion are potential impacts	<p><i>PM 4.1</i> If special status plant species are observed within the RPA Area during 2012 surveys, proposed mitigation should include avoidance of the population.</p> <p><i>PM 4.2</i> If avoidance is not feasible, additional mitigation can include conservation of populations on adjacent lands through use of a conservation easement or similar instrument or buying credits in a mitigation bank, if available.</p>
5.4.3.1 Special Status Bats				
pallid bat, fringed myotis bat, and long-legged myotis bat	Direct mortality and reduction in reproductive success (if maternity roosts are present)	Removal of 11.2 acres of potential oak woodland roost habitat	Noise disturbance to roosts outside footprint (grading & quarry extension-related activities)	<p><i>PM 5.1</i> Removal of potential bat roost habitat will occur between September 1 to October 31 when possible.</p> <p><i>PM 5.2</i> If vegetation removal is to occur between November 1 to August 31 pre-construction bat roost surveys will be conducted within 100 feet of the proposed disturbance area.</p> <p><i>PM 5.3</i> If bats are present, a suitable buffer around each occupied roost site will be instated, or bats will be excluded from the roost using methods recommended by a qualified biologist.</p>
western red bat	None	None	Noise disturbance to roosts outside footprint (grading & quarry extension-related activities)	Same as above for other special status bat species.
5.4.3.2 Special Status and MBTA Covered Birds				
long-eared owl, Lewis' woodpecker, Nuttall's woodpecker, olive-sided flycatcher, and Lawrence's goldfinch	Direct mortality to nesting birds, eggs, young, if present	Removal of 11.2 acres of potential oak woodland nest habitat	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	<p><i>PM 6.1</i> Removal of potential breeding bird habitat (i.e., vegetation) or initial ground disturbance will take place from September 1 to January 31 to avoid potential impacts to nesting birds.</p> <p><i>PM 6.2</i> If vegetation removal occurs between February 1 to August 31 pre-construction breeding bird surveys will be conducted covering the impacted area(s) and surrounding areas within 200 feet. If work occurs from February 1 to June 15, pre-construction surveys will be performed within 14 days prior to such activities; if work occurs from June 16 to August 31, pre-construction surveys will be performed within 30 days prior to such activities.</p> <p><i>PM 6.3</i> If nesting birds are found during pre-construction surveys, a suitable exclusion buffer will be instated around each active nest and maintained until the nest is inactive. Buffer sizes will be determined by a qualified biologist and will vary between species and disturbance contexts surrounding nests; buffers will be larger for special status species.</p>

Costa's hummingbird	Direct mortality to nesting birds, eggs, young, if present	Removal of 37.1 acres of potential nest habitat (oak woodland,	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	Same as above for other special status avian species.
bell's sage sparrow	Direct mortality to nesting birds, eggs, young, if present	Removal of 4.2 acres of potential chamise-chaparral nest habitat	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	Same as above for other special status avian species.
(Brewster's) yellow warbler	None	None	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	Same as above for other special status avian species.
yellow-breasted chat	None	None	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	Same as above for other special status avian species.
5.4.3.3 Golden Eagle	Removal of foraging habitat	Removal of 11.2 acres of potential oak woodland nest habitat	Noise disturbance to nests outside footprint (grading & quarry extension-related activities)	<p><i>PM 7.1</i> The removal of vegetation or initial ground disturbance will take place from September 1 to January 31.</p> <p><i>PM 7.2</i> If removal of vegetation or ground disturbance occurs between February 1 and August 31, pre-construction golden eagle nest surveys will be conducted covering the impacted area(s) and surrounding areas within 0.25 mile. If work occurs from February 1 to June 15, pre-construction surveys will be performed within 14 days prior to such activities; if work occurs from June 16 to August 31, pre-construction surveys will be performed within 30 days prior to such activities.</p> <p><i>PM 7.3</i> If nesting golden eagles are found during pre-construction surveys, an exclusion buffer of 0.25 mile will be instated around each active nest and maintained until the nest is inactive. Buffers may be reduced in size if a qualified biologist determines that a reduced buffer will not result in adverse impacts and there is concurrence by CDFG.</p>
5.4.3.4 Special Status Reptiles				
coast horned lizard	Direct mortality during grading & quarry extension-related activities; removal of 1,395 linear feet (0.08 acre) of ephemeral stream habitat	Removal of 37.13 acres of potential habitat (oak woodland, grassland, riparian, and chaparral habitats)	None	<p><i>PM 8.1</i> Prior to the removal of vegetation or initial ground disturbance, pre-construction surveys for coast horned lizard and silvery legless lizard will be conducted by a qualified biologist within each phased area of the quarry extension. Survey effort will be focused on microhabitats most suitable for each species. All individuals of both species captured by the biologist will be relocated to suitable habitat outside of the RPA Area.</p> <p><i>PM 8.2</i> During all vegetation removal and grubbing activities, a qualified biological monitor (or monitors) will be present to supervise the work, and capture and relocate as many individuals of both special status reptile species as is feasible. The biological monitor(s) will have the authority to temporarily halt work to avoid impacts to special status reptiles or other protected biological resources.</p>
silvery legless lizard	Direct mortality during grading & quarry extension-related activities; removal of 1,395 linear feet (0.08 acre) of ephemeral stream habitat	None	None	Same as above for coast horned lizard
Pacific pond turtle	None	None	Potential increase in sediment and/or runoff entering Salinas River	<p><i>PM 8.3</i> A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading.</p> <p><i>PM 8.4</i> A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.</p>

two-striped garter snake	None	None	Potential increase in sediment and/or runoff entering Salinas River	Same as above for Pacific pond turtle
5.4.3.5 Steelhead				
south-central steelhead DPS	None	None	Potential increase in sediment and/or runoff entering Salinas River	<i>PM 9.1</i> A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading. <i>PM 9.2</i> A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented. Best management practices will prevent debris and increased sediment loads from entering the river and obstructing or degrading the migration corridor.
5.4.3.6 and 5.4.3.7 Critical Habitat				
5.4.3.6 California red-legged frog critical habitat	Removal of 0.18 acre of critical habitat not containing any PCEs	None	None	<i>PM 10.1</i> The temporarily-impacted Critical Habitat is within Phase Three of the quarry extension, where pit excavation and resource extraction are estimated to occur from approximately 2056 to 2076. <i>PM 10.2</i> The 0.18 acre of CRLF Critical Habitat will be reclaimed and re-vegetated by approximately 2081, after resources are extracted, and should resemble its pre-impact state under future conditions. <i>PM 10.3</i> Informal consultation with USFWS will be required; however, no mitigation for removal of Critical Habitat is required given that PCEs are not present, and CRLF is not likely to be present (Phillips, Jeff pers. comm.).
5.4.3.7 south-central steelhead DPS critical habitat	None	None	Potential increase in sediment and/or runoff entering Salinas River	<i>PM 11.1</i> A minimum setback of 130 feet from the Salinas River and associated riparian woodland habitat will be put in place during all quarry extension grading. <i>PM 11.2</i> A detailed SWPPP to avoid increased sediment loads within the downslope portions of the RPA Area and Salinas River will be prepared and implemented.

7.0 REFERENCES

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APPENDIX A

**POTENTIAL FOR SPECIAL STATUS PLANT AND WILDLIFE SPECIES TO OCCUR
IN THE RPA AREA**

Appendix A. Table 1. Potential for Special Status Plant and Wildlife Species to Occur in the RPA Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (2012), U.S. Fish and Wildlife Service (USFWS) Species Lists, and California Native Plant Society (CNPS 2012) Electronic Inventory search of the Santa Margarita, Creston, Shedd Canyon, Wilson Corner, Santa Margarita Lake, Lopez Mountain, San Luis Obispo, Atascadero and Templeton USGS 7.5' quadrangle maps and a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Plants				
Hoover's bent grass <i>Agrostis hooveri</i>	List 1B	Chaparral, cismontane woodland, valley and foothill grassland; usually on sandy soil. Blooms Apr-Jul. 6-610m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Arroyo de la Cruz manzanita <i>Arctostaphylos cruzensis</i>	List 1B	Broadleafed upland forest, Coastal bluff scrub, Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland/sandy. Blooms Dec-Mar. 60-310m.	Unlikely. Although suitable woodland and chaparral habitat may be present in the RPA Area, the only <i>Arctostaphylos</i> species observed during Jan. 30-31 site visit was <i>A glauca</i> .	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Santa Lucia manzanita <i>Arctostaphylos luciana</i>	List 1B	Chaparral, Cismontane woodland/shale. Blooms Feb-Mar. 350-850m.	Unlikely. Although suitable woodland and chaparral habitat may be present in the RPA Area, the only <i>Arctostaphylos</i> species observed during Jan. 30-31 site visit was <i>A glauca</i> . No shale substrates exist in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Morro manzanita <i>Arctostaphylos morroensis</i>	FT, List 1B	Chaparral (maritime), cismontane woodland, coastal dunes (pre-Flandrian), coastal scrub/sandy loam. Blooms Dec-Mar. 5-205m.	No Potential. Species was not observed during site assessment which coincided with the species' blooming period. The RPA Area lacks suitable maritime chaparral habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Pecho manzanita <i>Arctostaphylos pechoensis</i>	List 1B	Closed-cone coniferous forest, chaparral, coastal scrub/siliceous shale. Blooms Nov-Mar. 125-850m.	Unlikely. Although suitable chaparral habitat may be present in the RPA Area, the only <i>Arctostaphylos</i> species observed during Jan. 30-31 site visit was <i>A glauca</i> . No shale substrates exist in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	List 1B	Closed-cone coniferous forest, chaparral, cismontane woodland on shale substrates. Blooms Dec-Mar. 170-1100m.	Unlikely. Although suitable woodland and chaparral habitat may be present in the RPA Area, the only <i>Arctostaphylos</i> species observed during Jan. 30-31 site visit was <i>A glauca</i> . No shale substrates exist in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Wells' manzanita <i>Arctostaphylos wellsii</i>	List 1B	Closed-cone coniferous forest, chaparral/sandstone. Blooms Dec-May. 30-400m.	Unlikely. Although suitable chaparral habitat may be present in the RPA Area, the only <i>Arctostaphylos</i> species observed during Jan. 30-31 site visit was <i>A glauca</i> . No sandstone substrates exist in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Marsh sandwort <i>Arenaria paludicola</i>	FE, SE, List 1B	Bogs and fens, marshes and swamps on sandy soils, openings. Blooms May-Aug. 3-170m.	No Potential. The RPA Footprint lacks suitable bog, fen, or marsh habitat. However, suitable habitat may be present along the Salinas River margins or backwaters.	See Appendix A. Table 2.
Miles' milk-vetch <i>Astragalus didymocarpus</i> var. <i>milesianus</i>	List 1B	Coastal scrub (clay). Blooms Mar-Jun. 20-90m.	No Potential. The RPA Area lacks suitable coastal scrub habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Round-leaved filaree <i>California macrophylla</i>	List 1B	Cismontane woodland, valley and foothill grassland/clay. Blooms Mar-May. 15-1200m.	Unlikely. The RPA Area lacks suitable clay soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Luis mariposa lily <i>Calochortus obispoensis</i>	List 1B	Chaparral, coastal scrub, valley and foothill grassland/often serpentinite. Blooms May-Jul. 75-730m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
La Panza mariposa lily <i>Calochortus simulans</i>	List 1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland/sandy, often granitic, sometimes serpentinite. Blooms Apr-May. 395-1100m.	Moderate Potential. CNDDDB occurrence within 5 miles of the RPA Area. Suitable chaparral and woodland habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Dwarf calycadenia <i>Calycadenia villosa</i>	List 1B	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland/rocky, fine soils. Blooms May-Oct. 240-1350m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Hardham's evening-primrose <i>Camissoniopsis [Camissonia] hardhamiae</i>	List 1B	Chaparral, cismontane woodland/sandy, decomposed carbonate, disturbed or burned areas. Blooms Apr-May. 140-610m.	Moderate Potential. CNDDDB occurrence within 5 miles of the RPA Area. Suitable chaparral and woodland habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Luis Obispo sedge <i>Carex obispoensis</i>	List 1B	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland/often serpentinite seeps, sometimes gabbro. Blooms Apr-Jun. 10-790m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Obispo Indian paintbrush <i>Castilleja densiflora ssp. obispoensis</i>	List 1B	Meadows and seeps, valley and foothill grassland/sometimes serpentinite. Blooms Mar-May. 10-400m.	Unlikely. Suitable seep habitat was not observed in the RPA Footprint. No serpentine substrates are present in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
California jewel-flower <i>Caulanthus californicus</i>	FE, SE, List 1B	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland/sandy. Blooms Feb-May. 70-1000m.	Unlikely. The RPA Area lacks suitable scrub, Pinon and juniper woodland, and sandy grassland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Lemmon's jewelflower <i>Caulanthus lemmonii</i> [<i>C. coulteri</i> var. <i>lemmonii</i>]	List 1B	Pinyon and juniper woodland, valley and foothill grassland. Blooms Mar-May. 80-1220m.	Unlikely. Most known occurrences of this species in the vicinity of the RPA Area are historic. Additionally, the RPA Area lacks commonly associated species reported in CNDDB occurrence records.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	List 1B	Valley and foothill grassland (alkaline). Blooms May-Oct (Nov). 1-230m.	No Potential. The RPA Area lacks suitable alkaline grassland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Pappose tarplant <i>Centromadia parryi</i> ssp. <i>parryi</i>	List 1B	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernal mesic, often alkaline sites. Blooms May-Nov. 2-420m.	No Potential. The RPA Area lacks suitable habitat for this species.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Dwarf soaproot <i>Chlorogalum pomeridianum</i> var. <i>minus</i>	List 1B	Chaparral (serpentinite). Blooms May-Aug. 305-1000m.	Unlikely. The RPA Area lacks suitable serpentinite soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Purple amole <i>Chlorogalum purpureum</i> var. <i>purpureum</i>	FT, List 1B	Chaparral, cismontane woodland, valley and foothill grassland/gravelly, clay. Blooms Apr-Jun. 205-350m.	Moderate Potential. Suitable chaparral habitat may be present in the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Comata Canyon amole <i>Chlorogalum purpureum</i> var. <i>reductum</i>	FT, SR, List 1B	Cismontane woodland (serpentinite). Blooms Apr-May. 600-630m.	Unlikely. The RPA Area lacks suitable serpentine cismontane woodland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Salt marsh bird's beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i> [<i>Cordylanthus</i> <i>maritimus</i> ssp. <i>maritimus</i>]	FE, SE, List 1B	Coastal dunes, marshes and swamps (coastal salt). Blooms May- Oct. 0-30m.	No Potential. The RPA Area lacks suitable dune, marsh, and swamp habitats.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Brewer's spineflower <i>Chorizanthe breweri</i>	List 1B	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub/serpentinite, rocky or gravelly. Blooms Apr-Aug. 45-800m.	Unlikely. The RPA Area lacks suitable serpentinite wooded or scrub habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Straight awned spineflower <i>Chorizanthe rectispina</i>	List 1B	Chaparral, cismontane woodland, coastal scrub. Blooms Apr-Jul. 85- 1035m.	Moderate Potential. CNDDDB occurrence within 5 miles of site. Suitable chaparral and woodland habitat may be present within RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Chorro Creek bog thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	FE, SE, List 1B	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/serpentinite seeps, drainages. Blooms Feb-Jul (Aug- Sep). 35-380m.	Unlikely. The RPA Area lacks suitable serpentinite soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Cuesta Ridge thistle <i>Cirsium occidentale</i> var. <i>lucianum</i>	List 1B	Chaparral. Openings; on serpentine. Often on steep rocky slopes and along disturbed roadsides. Blooms Apr-Jun. 500-750m.	Unlikely. The RPA Area lacks suitable serpentinite soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
La Graciosa thistle <i>Cirsium scariosum</i> var. <i>loncholepis</i> [<i>C. loncholepis</i>]	FT, SE, List 1B	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), valley and foothill grassland/mesic, sandy. Blooms May-Aug. 4-220m.	Unlikely. The RPA Area lacks suitable habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Pismo clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i> [<i>C. s. var. immaculata</i>]	FE, SR, List 1B	Chaparral (margins, openings), cismontane woodland, valley and foothill grassland/sandy. Blooms May-Jul. 25-185m.	Moderate Potential. Suitable chaparral, woodland and grasslands on sandy soils exist within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	List 1B	Chaparral (maritime), coastal dunes. Blooms Apr-May. 0-200m.	No Potential. The RPA Area lacks suitable coastal and maritime habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Luis Obispo serpentine dudleya <i>Dudleya abramsii</i> ssp. <i>bettinae</i>	List 1B	Chaparral, coastal scrub, valley and foothill grassland/serpentinite, rocky. Blooms May-Jul. 20-180m.	Unlikely. The RPA Area lacks suitable serpentine soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Luis Obispo dudleya <i>Dudleya abramsii</i> ssp. <i>murina</i>	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite. Blooms May-Jun. 90-440m.	Unlikely. The RPA Area lacks suitable serpentinite soils and outcrops.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	List 1B	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland/rocky, often on clay or serpentinite. Blooms Apr-Jun. 5-450m.	Unlikely. The RPA Area lacks suitable clay or serpentine soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i> [<i>E. kernensis</i>]	FE, List 1B	Chenopod scrub, valley and foothill grassland. On dry, open, sandy to clayey soils; usually within saltbush scrub; often at edge of balds. Blooms Mar-May. 70-1000m.	No Potential. The RPA Area lacks suitable chenopod scrub or alkaline grassland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Yellow-flowered eriastrum <i>Eriastrum luteum</i>	List 1B	Broadleafed upland forest, chaparral, cismontane woodland/sandy or gravelly. Blooms May-Jun. 290-1000m.	Moderate Potential. CNDDDB occurrence within 5 miles of site. Suitable chaparral and woodland habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Indian Knob mountainbalm <i>Eriodictyon altissimum</i>	FE, SE, List 1B	Chaparral (maritime), cismontane woodland, coastal scrub /sandstone. Blooms Mar-Jun. 80-270m.	Unlikely. The RPA Area lacks suitable maritime chaparral habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	List 1B	Vernal pools. Blooms in July. 3-45m.	No Potential. The RPA Area lacks suitable vernal pool habitats.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Ojai fritillary <i>Fritillaria ojaiensis</i>	List 1B	Broadleaved upland forest (mesic), chaparral, lower montane coniferous forest/rocky. Blooms Mar-May. 300-998m.	Moderate Potential. Suitable forest and chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Benito fritillary <i>Fritillaria viridea</i>	List 1B	Chaparral (serpentinite). Blooms Mar-May. 200-1525m.	Unlikely. Most known occurrences of this species in the vicinity of the RPA Area are associated with serpentine soils. The RPA Area lacks suitable serpentine soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Francisco gumplant <i>Grindelia hirsutula</i> [<i>G. h.</i> var. <i>maritima</i>]	List 1B	Coastal bluff scrub, coastal scrub, valley and foothill grassland; on sandy or serpentinite soils. Blooms Jun-Sep. 15-400m.	No Potential. The RPA Area lacks suitable coastal scrub or grassland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Mesa horkelia <i>Horkelia cuneata</i> ssp. <i>puberula</i>	List 1B	Chaparral (maritime), cismontane woodland, coastal scrub/sandy or gravelly. Blooms Feb-Jul (Sep). 70-810m.	Unlikely. The RPA Area lacks suitable maritime chaparral and coastal scrub habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	List 1B	Vernal pools, meadows, lower montane coniferous forest, chaparral, great basin scrub. Vernal pools, ephemeral drainages, wet meadow habitats, and streamsides. Blooms Apr-Jul. 300-2040m.	Unlikely. The RPA Footprint lacks suitable wetland habitat, however suitable habitat may be present along the Salinas River within the RPA Area.	See Appendix A Table 2.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Beach layia <i>Layia carnosa</i>	FE, SE, List 1B	Coastal dunes, coastal scrub (sandy). Blooms Mar-Jul. 0-60m.	No Potential. The RPA Area lacks suitable dune and coastal scrub habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Pale-yellow layia <i>Layia heterotricha</i>	List 1B	Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland/alkaline or clay. Blooms Mar-Jun. 300-1705m.	Moderate Potential. CNDDDB occurrence within 5 miles of site. Suitable woodland habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Jones' layia <i>Layia jonesii</i>	List 1B	Chaparral, valley and foothill grassland/clay or serpentinite. Blooms Mar-May. 5-400m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	List 1B	Chaparral, cismontane woodland, on sandstone or sandy soils. Blooms Apr-Jul. 50-525m.	Moderate Potential. CNDDDB occurrence within 5 miles of project site. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Nipomo Mesa lupine <i>Lupinus nipomensis</i>	FE, SE, List 1B	Coastal dunes. Blooms Dec-May. 10-50m.	No Potential. The RPA Area lacks suitable coastal dune habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Carmel Valley bush-mallow <i>Malacothamnus palmeri</i> var. <i>involucratus</i>	List 1B	Chaparral, cismontane woodland, coastal scrub. Blooms May-Aug (Oct). 30-1100m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
<i>Santa Lucia bush mallow</i> <i>Malacothamnus palmeri</i> var. <i>palmeri</i>	List 1B	Chaparral (rocky). Blooms May-Jul. 60-360m.	Moderate Potential. Suitable chaparral habitat may be present within the RPA Area	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Palmer's monardella <i>Monardella palmeri</i>	List 1B	Chaparral, cismontane woodland/serpentine. Blooms Jun-Aug. 200-800m.	Unlikely. Most known occurrences of this species in the vicinity of the RPA Area are associated with serpentine soils. The RPA Area lacks suitable serpentine soils.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Joaquin woolly-threads <i>Monolopia [Lembertia,</i> <i>Eatonella] congdonii</i>	FE, List 1B	Chenopod scrub, valley and foothill grassland (sandy). Blooms Feb-May. 60-800m.	No Potential. The RPA Area lacks suitable habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Gambel's watercress <i>Nasturtium [Rorippa,</i> <i>Cardamine] gambelii</i>	FE, SE, List 1B	Marshes and swamps (freshwater or brackish). Blooms Apr-Sep. 5-330m.	Unlikely. The RPA Footprint lacks suitable freshwater or brackish marsh habitat, however suitable habitat may be present along the Salinas River within the RPA Area.	See Appendix A Table 2.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Spreading navarretia <i>Navarretia fossalis</i>	FT, List 1B	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools. Blooms Apr-Jun. 30-1300m.	No Potential. The RPA Area lacks suitable scrub, swamp, playa, and vernal pool habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	List 1B	Cismontane woodland, valley and foothill grassland, vernal pools. Blooms May-Jul. 90-1000m.	Moderate Potential. Species occurrence within 5 miles of RPA Area. Suitable woodland and grassland habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
California orcutt grass <i>Orcuttia californica</i>	FE, SE, List 1B	Vernal pools. Blooms Apr-Aug. 15-660m.	No Potential. The RPA Area lacks suitable vernal pool habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Hooked popcornflower <i>Plagiobothrys uncinatus</i>	List 1B	Chaparral, cismontane woodland, valley and foothill grassland, coastal bluff scrub. Sandstone outcrops and canyon sides; often in burned or disturbed areas. Blooms Apr-May. 300-820m.	Moderate Potential. Suitable chaparral and cismontane habitat is present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
White rabbit-tobacco <i>Pseudognaphalium leucocephalum</i>	List 2	Chaparral, cismontane woodland, coastal scrub, riparian woodland/sandy, gravelly. Blooms (Jul) Aug-Nov (Dec). 0-2100m.	Moderate Potential. Suitable chaparral and woodland habitats may be present within RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Adobe sanicle <i>Sanicula maritima</i>	SR, List 1B	Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland/clay, serpentinite. Blooms Feb-May. 30-240m.	Unlikely. The RPA Area lacks suitable clay or serpentine soils. Additionally, the RPA Area is above this species' elevation range.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Rayless ragwort <i>Senecio aphanactis</i>	List 2	Chaparral, cismontane woodland, coastal scrub/sometimes alkaline. Blooms Jan-Apr. 15-800m.	Moderate Potential. This species was not observed during the site assessment Jan 30-31, 2008, however, suitable chaparral habitat may be present within the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Cuesta Pass checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	SR, List 1B	Closed-cone coniferous forest, chaparral/serpentinite. Blooms May-Jun. 600-800m.	Unlikely. The RPA Area lacks suitable serpentine soil.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Parish's checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	SR, List 1B	Chaparral, cismontane woodland, lower montane coniferous forest. Blooms Jun-Aug. 1000-2135m.	Unlikely. RPA Area is below species' elevation range and the nearest CNDDDB occurrence is over five miles from the RPA Area.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Most beautiful jewel-flower <i>Streptanthus glandulosus</i> ssp. <i>glandulosus</i> [<i>S. albidus</i> ssp. <i>peramoenus</i>]	List 1B	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite. Blooms (Mar) Apr-Sep (Oct). 94-1000m.	Unlikely. The RPA Area lacks suitable serpentine soil.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California seablite <i>Suaeda californica</i>	FE, List 1B	Marshes and swamps (coastal salt). Blooms Jul-Oct. 0-15m.	No Potential. The RPA Area lacks suitable coastal salt marsh or swamp habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
San Bernardino aster <i>Symphotrichum defoliatum</i>	List 1B	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic); near ditches, streams, springs. Blooms Jul-Nov. 2-2040m.	Unlikely. The RPA Footprint lacks suitable habitat, however suitable habitat may be present along the Salinas River within the RPA Area.	See Appendix A Table 2.
Saline clover <i>Trifolium hydrophilum</i> [<i>T. depauperatum</i> var. <i>hydrophilum</i>]	List 1B	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Blooms Apr-Jun. 0-300m.	No Potential. The RPA Area lacks suitable mesic alkaline grassland and swamp habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.
Caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	List 1B	Valley and foothill grassland (alkaline hills). Blooms Mar-Apr. 1-455m.	No Potential. The RPA Area lacks suitable alkaline grassland habitat.	Appropriately-timed floristic survey conducted; species not observed in the RPA Area. No further action recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Mammals				
Pallid bat <i>Antrozous pallidus</i>	SSC, WBWG	Found in deserts, grasslands, shrublands, woodlands, and forests. Roost sites include old ranch buildings, rocky outcrops and caves within sandstone outcroppings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	High Potential. Suitable rock crevices and hollow trees are present throughout the RPA Area. This species is documented within 5 miles of the RPA Area (CNDDDB 2008).	Recommend restriction of initial blasting to work window from August 1 to November 1 will avoid impacts to hibernacula and maternity roosts.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SSC, WBWG	Lives in a wide variety of habitats but most common in mesic sites. Day roosts highly associated with caves and mines. Need appropriate roosting, maternity, and hibernacula sites free from human disturbance.	Unlikely. Suitable roost habitat is not present within the RPA Area. This species is documented within 3 miles of the RPA Area (CNDDDB 2008).	No further surveys or mitigation measures are recommended.
Western red bat <i>Lasiurus blossevillii</i>	SSC, WBWG	Typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields. There may be an association with intact riparian habitat.	Unlikely. Typical roost habitat is not present within the RPA Area. May occur adjacent to the RPA Area; see Table 2.	See Appendix A. Table 2.
Fringed myotis <i>Myotis thysanodes</i>	WBWG	Associated with a wide variety of habitats, including various woodland types. Buildings, mines and large snags are important day and night roosts.	High Potential. Suitable forest and woodland habitat, with many large snags, is present within the RPA Area.	Recommend restriction of initial blasting to work window from August 1 to November 1 will avoid impacts to hibernacula and maternity roosts.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Long-legged myotis <i>Myotis volans</i>	WBWG	Generally associated with woodlands and forested habitats, but habitat highly variable. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	High Potential. Suitable forest and woodland habitat with many large snags and rock crevices, is present within the RPA Area.	Recommend restriction of initial blasting to work window from August 1 to November 1 will avoid impacts to hibernacula and maternity roosts.
Greater western mastiff bat <i>Eumops perotis californicus</i>	SSC, WBWG	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	Unlikely. Suitable roost habitat is not present within the RPA Area.	No further surveys or mitigation measures are recommended.
Morro Bay kangaroo rat <i>Dipodomys heermanni morroensis</i>	FE, SE, CFP	Coastal sage scrub on the south side of Morro Bay. Needs sandy soil, but not active dunes, prefers early seral stages with little vegetation.	No Potential. Suitable habitat is not present, and the RPA Area is outside the known range for this species.	No further surveys or mitigation measures are recommended.
Giant kangaroo rat <i>Dipodomys ingens</i>	FE, SE	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Need level terrain and sandy loam soils for burrowing.	No Potential. Suitable habitat is not present, and the RPA Area is outside the known range for this species.	No further surveys or mitigation measures are recommended.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE, ST	Found in annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing and suitable prey base.	No Potential. Suitable habitat is not present. The RPA Area is outside the known range for this species.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
American badger <i>Taxidea taxus</i>	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	Unlikely. Typical open stage, uncultivated ground is not present. This species is documented to occur within 4 miles of the RPA Area (CNDDDB 2008).	No further surveys or mitigation measures are recommended.
Birds				
California condor <i>Gymnogyps californianus</i>	FE, SE	Resident, though home range can be very large. Requires vast expanses of open savannah, grasslands, foothill chaparral and canyons. Nests on cliffs and in caves; roosts in large trees and snags. Forages over wide areas for the carcasses of large animals. .	Unlikely. Grassland, savannah and other typical foraging habitats are not present within the RPA Area, and a potential forage (e.g. dead cattle) is extremely limited. Suitable cliff breeding habitat is also absent within and immediately adjacent to the RPA Area. This species has been documented to use open habitats approximately 15 miles south of the RPA Area and thus may occasionally soar over the RPA Area.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Golden eagle <i>Aquila chrysaetos</i>	CFP, BCC	Resident, though wanders widely. Found in rolling foothill and mountain areas, sage-juniper flats, dessert. Cliff-walled canyons provide nesting habitat in most parts of range.	Present. This species was observed within the RPA Area during the initial site visit (courtship displays) and again during the 2011 site visit. Suitable nesting habitat is available in oak woodland habitat; may also nest in nearby areas and forage within the RPA Area.	Breeding raptor surveys are recommended within 14 days prior to construction.
Ferruginous hawk <i>Buteo regalis</i>	BCC	Winter visitor. Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats.	Unlikely. Typical open grassland habitat is not present for foraging. This species is a winter visitor and does not breed in the region.	No further surveys or mitigation measures are recommended.
Northern harrier <i>Circus cyaneus</i>	SSC	Resident and winter visitor. Forages in open meadows, savannah, and grassland habitats, often in association with wetlands. Nests on ground in emergent or shrubby vegetation, the latter usually in wet areas. Generally avoids forested and mountainous habitats.	Unlikely. Suitable open grassland or marsh habitat is not present in the RPA Area. May occasionally pass through open areas during migration.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
White-tailed kite <i>Elanus leucurus</i>	CFP	Resident of coastal and valley lowlands. Preys on small diurnal mammals as well as other vertebrates and insects. Nests in small to large trees, often at habitat edges.	Unlikely. Suitable open grassland habitat is not present in the RPA Area. There are recent breeding records in grassland/woodland habitat within 3 miles of the RPA Area (CDFG 2011).	No further surveys or mitigation measures are recommended.
Bald eagle <i>Haliaeetus leucocephalus</i>	FD, SE, CFP, BCC	Generally a winter visitor, with limited breeding in parts of California. Requires large bodies of water, or free-flowing rivers with abundant fish and adjacent snag or other perches. Nests in large, old-growth, or dominant live tree with open branchwork.	Unlikely. The RPA Area lacks large bodies of standing water and provides no typical habitat for this species. Bald Eagles are uncommonly observed in the greater vicinity and thus this species may occasionally fly over the RPA Area. Unlikely to nest along the Salinas River due to limited extent of water; breeding in San Luis Obispo County is strongly associated with reservoirs.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Prairie falcon <i>Falco mexicanus</i>	BCC	Resident and winter visitor. Inhabits dry, open terrain, including grasslands, scrub and desert. Breeding sites typically located on remote cliffs. Forages widely.	Unlikely. Suitable cliff habitat for breeding is not present in the RPA Footprint, or along the adjacent Salinas River in the RPA Area. May occasionally fly or forage over the RPA Area, principally during the non-breeding season.	No further surveys or mitigation measures are recommended.
American peregrine falcon <i>Falco peregrinus anatum</i>	FD, SD, CFP, BCC	Resident and winter visitor. Winters throughout the Central Valley and along portions of the coast; breeds at various coastal sites. Requires protected cliffs and ledges for nesting. Feeds primarily on waterbirds.	Unlikely. Suitable cliff habitat is not present in the RPA Area. May occasionally fly or forage over the RPA Area.	No further surveys or mitigation measures are recommended.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FC, SE, BCC	Summer resident, breeding in well-developed riparian woodlands and forest. Utilizes densely foliated deciduous trees and shrubs for foraging and nesting. Eats large insects, mostly caterpillars. Current breeding distribution within California very limited and fragmented.	Unlikely. The RPA Footprint lacks suitable riparian habitat.. Riparian habitat exists along the adjacent Salinas River in the RPA Area, but it is limited in lateral extent, and there are no recent breeding records from San Luis Obispo County (Laymon 1998).	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California spotted owl <i>Strix occidentalis occidentalis</i>	SSC, BCC	Resident in old growth forest, including coniferous and pine-oak. Requires a relatively closed tree canopy and the presence of dead and dying trees. Often occurs in wooded canyons. Nests in tree cavities and hollow stumps.	Unlikely. Oak woodland/forest habitat with a suitably dense canopy within or adjacent to the RPA Area is too limited in area to support this species.	No further surveys or mitigation measures are recommended.
Long-eared owl <i>Asio otus</i>	SSC	Resident and visitor in the region. Nests in a variety of woodland habitats, including oak and riparian. Requires adjacent open land with rodents for foraging, and the presence of old nests of crows, hawks, magpies etc. for breeding.	Moderate Potential. Suitable nesting habitat, including thickly wooded areas, are present in the RPA Area.	Breeding raptor surveys are recommended within 14 days prior to construction.
Western burrowing owl <i>Athene cunicularia hypugea</i>	SSC, BCC	Resident and winter visitor in open, dry annual or perennial grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, generally those of ground squirrels.	Unlikely. Suitable open grassland habitat is not present in the RPA Area.	No further surveys or mitigation measures are recommended.
Costa's hummingbird <i>Calypte costae</i>	BCC	Resident in chaparral, scrub and woodland habitats with nectar flowers and insect populations. Nest constructed in a variety of trees and shrubs, often near water.	High Potential. Oak woodland and chaparral habitats within the RPA Area provide suitable habitat.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Lewis' woodpecker <i>Melanerpes lewis</i>	BCC	Resident and irregular visitor. Nests in loose colonies in open pine-oak woodlands, oak savanna, and oak woodland habitats. Nests are typically in large hollow trees or snags. Often associated with burned areas.	Moderate Potential. Oak woodland within the RPA Area provides suitable habitat.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.
Nuttall's woodpecker	BCC	Resident. A relatively common species in much of its range. Occurs in woodlands, primarily those dominated by oaks.	High Potential. Oak woodland within the RPA Area provides suitable habitat.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.
Olive-sided flycatcher	SSC, BCC	Summer resident. Typical breeding habitat is montane coniferous forests. At lower elevations, also occurs in wooded canyons and mixed woods.	Moderate Potential. The RPA Area provides oakland woodland/forest with some intermixed pines, and is within this species' San Luis Obispo County breeding range per a recent monograph in Shuford and Gardali (2008). May also occur adjacent to the RPA Area along the Salinas River.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE, SE	Summer resident in the southern third of California and the Southwest. Typically breeds in dense riparian vegetation associated with standing water. Vegetative microhabitats used for nesting variable; willows, mulefat, blackberry and cottonwood are commonly used. Nests typically within ten feet of the ground..	Unlikely. Riparian habitat is not present in the RPA Footprint, although potentially suitable habitat exists along the adjacent Salinas River in the RPA Area. However, per USFWS (2002) the RPA Area is north of the range of the <i>extimus</i> subspecies.	No further surveys or mitigation measures are recommended.
Loggerhead shrike <i>Lanius ludovicianus</i>	SSC, BCC	Resident in open woodland, grassland, savannah and scrub. Prefers open areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed above ground in densely-foliaged shrub or tree.	Unlikely. Preferred open grassland or savannah habitat is not present in the RPA Area.	No further surveys or mitigation measures are recommended.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE, SE	Summer visitor. Breeds in riparian woodland and scrub along perennial or nearly perennial streams; prefers early successional vegetation. Willows and/or mulefat typically used for nesting.	Unlikely. Riparian habitat is not present in the RPA Footprint, although potentially suitable habitat exists along the Salinas River in the RPA Area. However, this species is treated as absent as a breeder in San Luis Obispo County by USFWS (2006).	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Vaux's swift <i>Chaetura vauxi</i>	SSC	Summer resident. Breeds in woodlands and low-elevation coniferous forest in portions of the Coast Ranges. Nests in tree cavities, typically located in tall, isolated tree/snag.	Unlikely. This species' current breeding range does not include San Luis Obispo County per a recent monograph in Shuford and Gardali (2008). May fly over the RPA Area during migration.	No further surveys or mitigation measures are recommended.
Purple martin <i>Progne subis</i>	SSC	Summer resident, breeding low-elevation coniferous forests and woodlands. Nests in cavities, of trees and also anthropogenic structures (e.g. utility poles, bridges). Nest sites typically in located in tall, isolated trees or snags. Abundant flying insect prey also important.	Unlikely. The small and local breeding population within San Luis Obispo County is restricted to coniferous forest habitats (Shuford and Gardali 2008). May occasionally fly over the RPA Area during migration.	No further surveys or mitigation measures are recommended.
Coastal California gnatcatcher <i>Poliptila californica californica</i>	FT, SSC	Resident and endemic to coastal California slopes from Ventura County to northern Baja California, Mexico. Strongly associated with coastal sage scrub for nesting and foraging; other vegetation communities (e.g. chaparral) found adjacent to sage scrub are also used.	No Potential. The RPA Area is outside the known range of this species, which does not extend north of Ventura County.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
(Brewster's) Yellow warbler <i>Dendroica petechia brewsteri</i>	SSC, BCC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting variable, but dense willow growth is typical. Occurs widely on migration.	Unlikely. Suitable nesting habitat is not present in the RPA Footprint, though this species may occur there during migration. This species may breed in adjacent riparian habitat in the RPA Area; see Table 2.	See Appendix A. Table 2.
Yellow-breasted chat <i>Icteria virens</i>	SSC	Summer resident, utilizing riparian areas with an open canopy, dense understory, and trees for song perches. Nests in thickets of willow, blackberry, and wild grape.	Unlikely. There is no suitable riparian habitat for this species within the RPA Footprint. This species may breed in adjacent riparian habitat in the RPA Area; see Table 2.	See Appendix A. Table 2.
Bell's sage sparrow <i>Amphispiza belli</i>	BCC	Resident, though shows seasonal movements. Prefers dense chaparral and scrub habitats for breeding; associated with chamise. Also occurs in more open habitats during winter.	High Potential. Chaparral and scrub vegetation along the upper ridge area provides typical breeding habitat for this species.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.
Grasshopper sparrow <i>Ammodramus savannarum</i>	SSC	Summer resident. Secretive; breeds in open grassland habitats, generally with low- to moderate-height grasses and scattered shrubs.	Unlikely. The RPA Area does not provide suitable grassland habitat for this species.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Tricolored blackbird <i>Agelaius tricolor</i>	SSC, BCC	A highly colonial resident species, most numerous in the Central Valley and vicinity. Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry or other tall herbs. Requires breeding habitat sufficient to support 30 nesting pairs.	Unlikely. Typical emergent marsh habitat is not present within the RPA Area.	No further surveys or mitigation measures are recommended.
Lawrence's goldfinch <i>Carduelis lawrencei</i>	BCC	A summer visitor in coastal southern California, generally uncommon and local. Typically found in arid open woodlands, including oak savannah. Breeding distribution is erratic from year to year.	Moderate Potential. Oak woodland and chaparral habitats within the RPA Area provide suitable breeding habitat. May also occur along adjacent portions of the Salinas River.	Pre-construction nest surveys for this species should be performed within 14 days prior to construction.
Reptiles				
Pacific pond turtle <i>Actinemys marmorata</i>	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs), submerged shelter and terrestrial nest sites. Requires friable soil for breeding. Documented to disperse and wander over upland habitats.	Unlikely. The RPA Footprint provides no suitable aquatic habitat for this species. Although there are several occurrences within 2 miles of the RPA Footprint, steep terrain likely makes it a barrier to any dispersal. May occur within the adjacent portions of the Salinas River and associated habitats in the RPA Area.	See Appendix A. Table 2.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Coast horned lizard <i>Phrynosoma coronatum</i>	SSC	Habitat variable; most common in lowlands along sandy washes with low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of insect forage are primary microhabitat components.	High Potential. Open sandy areas within chaparral provide suitable habitat throughout much of the RPA Area.	Pre-construction surveys are recommended.
Silvery legless lizard <i>Anniella pulchra pulchra</i>	SSC	Burrowing species found in loose sandy or loamy soils within beach, chaparral, woodland and other habitats. Soil must be suitably moist for survival.	Moderate potential. Sandy soils within chaparral and other higher-elevation habitats within the RPA Footprint are likely too dry to support this species; it has some potential to occur in the lower portions of drainages where more moisture is retained, as well as along adjacent portions of the Salinas River in the RPA Area.	Pre-construction surveys are recommended.
Two-striped garter snake <i>Thamnophis hammondi</i>	SSC	Occurs in coastal California from vicinity of Salinas to northwest Baja California. Highly aquatic, found in or near freshwater. Often along streams with rocky beds and riparian growth.	Unlikely. This species is primarily aquatic, and no suitable habitat is present within the RPA Footprint, although there is some potential to be present along the adjacent Salinas River in the RPA Area.	See Appendix A. Table 2.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Amphibians				
California tiger salamander <i>Ambystoma californiense</i>	FT, ST, SSC	Inhabits annual grassland habitats, with most time spent in mammal burrows and other underground refugia. Breeds in vernal pools and other seasonal aquatic features.	No Potential. Suitable grassland habitat and seasonal pools are not present in the RPA Area, and the RPA Area is outside of this species' recognized range (Jennings and Hayes 1994).	No further surveys or mitigation measures are recommended.
Coast Range newt <i>Taricha torosa torosa</i>	SSC	Coastal drainages from Mendocino County to San Diego County; SSC status applies only from the Salinas River south. Lives in terrestrial habitats (generally forest and woodland) and will migrate over 1 kilometer to breed in ponds, reservoirs and slow moving streams.	Unlikely. The RPA Footprint provides no aquatic breeding for this species. Although there is a documented occurrence within 5 miles of the RPA Footprint(CDFG 2011), strong seasonal flow within the Salinas River likely precludes breeding.	No further surveys or mitigation measures are recommended.
Western spadefoot <i>Spea hammondi</i>	SSC	Occurs primarily in lowland habitats with sandy or gravelly soils such as washes and floodplains, also in grassland, chaparral and woodland. Breeds in temporary rainpools that are inundated for at least three weeks.	Unlikely. Although there are documented occurrences in the area, including one within two miles of the RPA Footprint (CDFG 2011), the RPA Footprint as well as adjacent portions of the Salinas River in the RPA Area do not provide any suitable breeding habitat.	No further surveys or mitigation measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<p>Arroyo toad <i>Bufo californicus</i></p>	<p>FE, SSC</p>	<p>Endemic to southern California and northern Baja California. Habitat is highly specialized: breeding occurs only in overflow pools adjacent to the inflow channel of 3rd- and greater-order streams that are free of predatory fishes. Pools with sand or gravel substrates are preferred. Terrestrial habitat consists of sand or gravel banks and washes with some scrub and/or riparian cover in the vicinity of breeding pools.</p>	<p>Unlikely. The RPA Footprint provides no suitable breeding habitat for this species. While adjacent portions of the Salinas River in the RPA Area may provide some suitable habitat elements, the only documented population of this species in San Luis Obispo County (within the Salinas River drainage) is considered extirpated (USFWS 1999).</p>	<p>No further surveys or mitigation measures are recommended.</p>
<p>California red-legged frog <i>Rana draytonii</i></p>	<p>FT, SSC</p>	<p>Endemic to California. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive riparian and/or emergent vegetation. Documented to disperse through upland habitats after rains.</p>	<p>Unlikely. The RPA Footprint provides no suitable aquatic habitat for this species. Potentially suitable breeding habitat along the adjacent Salinas River in the RPA Area is limited to shallow overflow pools and thus is of poor quality. There are documented occurrences within 5 miles of the RPA Footprint (CDFG 2011), but none are associated with the Salinas River.</p>	<p>No further surveys or mitigation measures are recommended.</p>

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Foothill yellow-legged frog <i>Rana boylei</i>	SSC	Found in or near rocky streams in shallow, flowing water, usually in moderate-sized streams with some cobble-sized substrate. Highly aquatic; not inclined to terrestrial dispersal.	Unlikely. The RPA Footprint provides no suitable aquatic habitat for this species. The adjacent portion of the Salinas River in the RPA Area provides some suitable habitat elements but seasonal flow is likely too strong to support reproduction. Although potentially present historically, this species is likely extirpated from southern San Luis Obispo County (Jennings and Hayes 1994).	No further surveys or mitigation measures are recommended.
Fishes				
Steelhead - south/central California coast DPS <i>Oncorhynchus mykiss irideus</i>	FT, SSC	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including the Santa Maria River. Anadromous. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	No Potential. The RPA Footprint provides no suitable aquatic habitat for this species. However, it is documented to occur in the upper Salinas River and could potentially occur in adjacent portions of the River in the RPA Area.	See Appendix A. Table 2.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Invertebrates				
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>	FE	Endemic to the eastern margin of the central coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	No Potential. No suitable vernal pool habitat is present in the RPA Area.	No further surveys or mitigation measures are necessary.
Morro shoulderband snail <i>Helminthoglypta walkeriana</i>	FE	Restricted to the coastal strand in the immediate vicinity of Morro Bay. Inhabits the duff beneath <i>Haplopappus</i> , <i>Salvia</i> , <i>Dudleya</i> , and <i>Mesembryanthemum</i> .	No Potential. The RPA Area is outside the known range of this species, and no suitable habitat is present.	No further surveys or mitigation measures are necessary.
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>	FE	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: <i>Eriogonum latifolium</i> and <i>Eriogonum parvifolium</i> are utilized as both larval and adult foodplants.	No Potential. The RPA Area is outside the known range of this species, and no suitable habitat is present.	No further surveys or mitigation measures are necessary.
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	Inhabit small, clear-water sandstone-depression pools, grassy swales, slumps, or basalt-flow depression pools.	No Potential. No suitable vernal pool habitat is present in the RPA Area.	No further surveys or mitigation measures are necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
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*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
FD	Federal De-listed
BCC	USFWS Birds of Conservation Concern
RP	Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
SE	State Endangered
ST	State Threatened
SR	State Rare
SSC	CDFG Species of Special Concern
CFP	CDFG Fully Protected Animal
WBWG	Western Bat Working Group High Priority species
BLM: Sensitive	Bureau of Land Management: Sensitive Species
List 1A	CNPS List 1A: Plants presumed extinct in California
List 1B	CNPS List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2	CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere

Appendix A. Table 2. Potential for Special Status Wildlife Species to Occur in the RPA Area, Excluding the RPA Footprint. This list includes only those species that are unlikely or have no potential to occur within the RPA Footprint itself, but have a high or moderate potential to occur in habitats adjacent to the RPA Footprint, specifically those associated with habitats found in the Salinas River.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Plants				
Marsh sandwort <i>Arenaria paludicola</i>	FE, SE, List 1B	Bogs and fens, marshes and swamps on sandy soils, openings. Blooms May-Aug. 3-170m.	Moderate Potential. Suitable marsh or swamp habitat may be present along the Salinas River within the RPA, especially on river margins and backwaters.	An appropriately-timed floristic survey should be conducted during the blooming period of this species.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	List 1B	Vernal pools, meadows, lower montane coniferous forest, chaparral, great basin scrub. Vernal pools, ephemeral drainages, wet meadow habitats, and streamsides. Blooms Apr-Jul. 300-2040m.	Moderate Potential. Suitable marsh or swamp habitat may be present along the Salinas River within the RPA, especially on river margins and backwaters.	An appropriately-timed floristic survey should be conducted during the blooming period of this species.
Gambel's watercress <i>Nasturtium [Rorippa, Cardamine] gambelii</i>	FE, SE, List 1B	Marshes and swamps (freshwater or brackish). Blooms April-October. 5-330m.	Moderate Potential. Suitable marsh or swamp habitat may be present along the Salinas River within the RPA, especially on river margins and backwaters.	An appropriately-timed floristic survey should be conducted during the blooming period of this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Bernardino aster <i>Symphotrichum defoliatum</i>	List 1B	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic); near ditches, streams, springs. Blooms Jul-Nov. 2-2040m.	Moderate Potential. Suitable marsh or swamp habitat may be present along the Salinas River within the RPA, especially on river margins and backwaters.	An appropriately-timed floristic survey should be conducted during the blooming period of this species.
Mammals				
Western red bat <i>Lasiurus blossevillii</i>	SSC, WBWG	Typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields. There may be an association with intact riparian habitat.	High Potential. Suitable habitat is present in riparian woodlands within the RPA Area.	Prescribed work window or pre-construction surveys for bat species that may occur in the RPA Area will reduce potential indirect impacts to this species.
Birds				
(Brewster's) Yellow warbler <i>Setophaga (Dendroica) petechia brewsteri</i>	SSC, BCC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting variable, but dense willow growth is typical. Occurs widely on migration.	High Potential. Riparian habitat dominated by willows along the Salinas River provides high-quality nesting habitat for this species.	Work windows or pre-construction surveys may be recommended based on determination of project's potential indirect impacts.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Yellow-breasted chat <i>Icteria virens</i>	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian vegetation, typically willow, blackberry, and wild grape. Forages and nests within 10 feet of ground.	Moderate Potential. Patches of dense riparian understory vegetation along the Salinas River provide suitable nesting habitat for this species.	Work windows or pre-construction surveys may be recommended based on determination of project's potential indirect impacts.
Reptiles				
Pacific pond turtle <i>Actinemys (Emys) marmorata</i>	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs), submerged shelter and terrestrial nest sites. Requires friable soil for breeding. Documented to disperse and wander over upland habitats.	Moderate Potential. Portions of the Salinas River within the RPA Area are not optimal habitat, due to shallow water conditions during the summer and presumed high flow during spring and summer. However, there are recent documented occurrences both upstream and downstream (CDFG 2011). Sandy soils amid riparian vegetation along the river provide suitable breeding habitat.	A minimum setback of 130 feet from the Salinas River and associated riparian habitat and a detailed SWPPP to avoid increased sediment loads.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Two-striped garter snake <i>Thamnophis hammondi</i>	SSC	Occurs in coastal California from vicinity of Salinas to northwest Baja California. Highly aquatic, found in or near freshwater. Often along streams with rocky beds and riparian growth.	Moderate Potential. Portions of the Salinas River within the RPA Area provide suitable aquatic habitat with adjacent riparian cover, as well as prey base (small fishes).	A minimum setback of 130 feet from the Salinas River and associated riparian habitat and a detailed SWPPP to avoid increased sediment loads.
Fishes				
Steelhead - south/central California coast DPS <i>Oncorhynchus mykiss irideus</i>	FT, SSC	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including the Santa Maria River. Anadromous. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	Present. Though diminished in habitat quality, some Salinas River tributaries upstream of the RPA Area continue to support steelhead runs (Funk and Morales 2002).	A minimum setback of 130 feet from the Salinas River and associated riparian habitat and a detailed SWPPP to avoid increased sediment loads.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
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*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
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APPENDIX B
REPRESENTATIVE RPA AREA PHOTOGRAPHS



Appendix B. Representative Photographs

Top: Chamise chaparral in the foreground, coast live oak woodland and northern mixed chaparral on the facing slope, and disturbed areas beyond the ridge.

Bottom: Coast live oak woodland habitat.
Photographs taken January 31, 2008





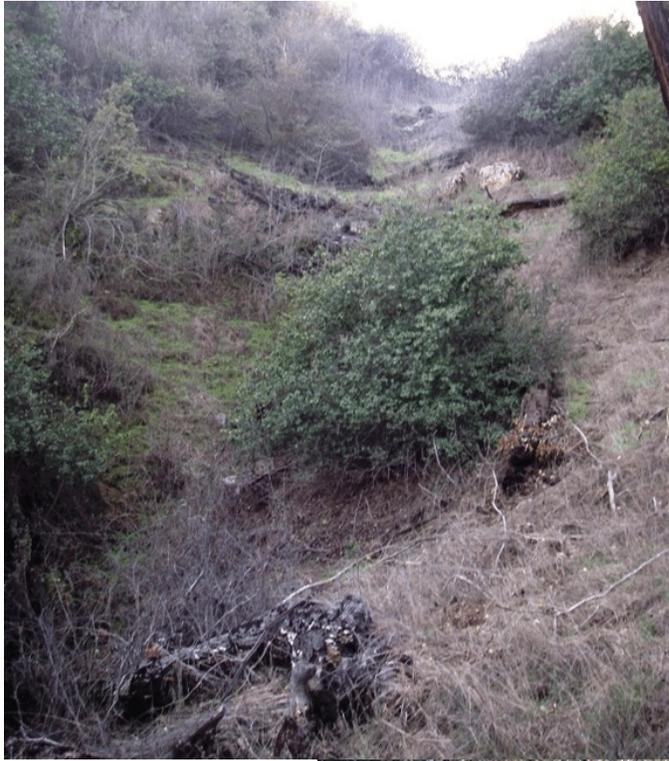
Appendix B. Representative Photographs

Top: Chamise chaparral habitat.

Bottom: Northern mixed chaparral habitat.



Photographs taken January 31, 2008

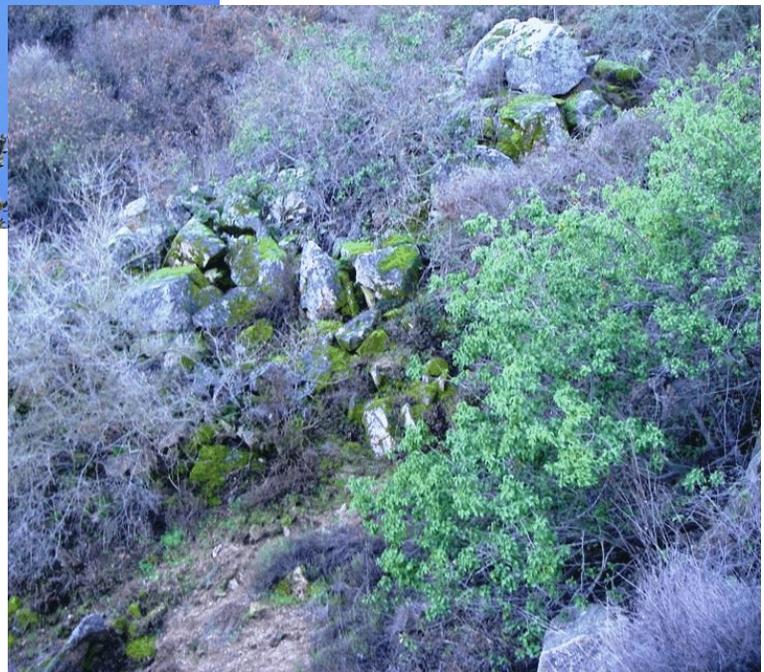


Appendix B. Representative Photographs

Top: Typical non-jurisdictional drainage.
Bottom: Potentially jurisdictional drainage in the RPA Footprint.

Photographs taken January 30, 2008





Appendix B. Representative Photographs

Top: Potential bat roost and avian nesting habitat in a pine snag.

Bottom: Potential bat roost habitat in a rock outcrop crevice.

Photographs taken January 30, 2008



APPENDIX C

LIST OF OBSERVED PLANT AND ANIMAL SPECIES

Appendix C-1. Plant species observed in the RPA Area

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Adoxaceae [Caprifoliaceae]	<i>Sambucus nigra</i> ssp. <i>caerulea</i> [S. <i>mexicana</i>]	blue elderberry	FAC	native	evergreen shrub
Agavaceae [Liliaceae]	<i>Hesperoyucca</i> [<i>Yucca</i>] <i>whipplei</i>	chaparral yucca	NL	native	perennial herb
Anacardiaceae	<i>Rhus aromatica</i> [R. <i>trilobata</i>]	skunkbrush	NI	native	deciduous shrub
Anacardiaceae	<i>Toxicodendron diversilobum</i>	poison oak	NL	native	deciduous shrub
Apiaceae	<i>Apiastrum angustifolium</i>	wild parsley	NL	native	annual herb
Apiaceae	<i>Bowlesia incana</i>	hoary bowlesia	FACU	native	annual herb
Apiaceae	<i>Sanicula bipinnatifida</i>	purple sanicle	NL	native	perennial herb
Apiaceae	<i>Sanicula crassicaulis</i>	Pacific sanicle	NL	native	perennial herb
Apiaceae	<i>Tauschia hartwegii</i>	Hartweg's tauschia	NL	native	perennial herb
Apiaceae	<i>Torilis arvensis</i>	hedge parsley	NL	non-native	annual herb
Apocynaceae [Asclepiadaceae]	<i>Asclepias eriocarpa</i>	Kotolo milkweed	FAC	native	perennial herb
Asteraceae	<i>Achyrachaena mollis</i>	blow wives	NL	native	annual herb
Asteraceae	<i>Artemisia douglasiana</i>	mugwort	NL	native	perennial herb
Asteraceae	<i>Baccharis pilularis</i>	coyotebrush	NL	native	evergreen shrub
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	NL	non-native	annual herb
Asteraceae	<i>Centaurea melitensis</i>	tocalote	NL	non-native	annual herb
Asteraceae	<i>Centaurea solstitialis</i>	yellow starthistle	NL	non-native	annual herb
Asteraceae	<i>Cirsium occidentale</i> var. <i>occidentale</i>	cobwebby thistle	NL	native	perennial herb
Asteraceae	<i>Cynara cardunculus</i>	artichoke thistle	NL	non-native	perennial herb
Asteraceae	<i>Eriophyllum confertiflorum</i>	golden yarrow	NL	native	evergreen shrub
Asteraceae	<i>Micropus californicus</i>	slender cottonweed	NL	native	annual herb
Asteraceae	<i>Pseudognaphalium</i> [<i>Gnaphalium</i>] <i>californicum</i>	ladies' tobacco	NL	native	annual or perennial herb
Asteraceae	<i>Stephanomeria elata</i>	Santa Barbara wire lettuce	NL	native	annual herb
Boraginaceae	<i>Amsinckia intermedia</i> [A. <i>menziesii</i> var. <i>intermedia</i>]	common fiddleneck	NL	native	annual herb
Boraginaceae	<i>Amsinckia tessellata</i> var. <i>tessellata</i>	desert fiddleneck	NL	native	annual herb
Boraginaceae	<i>Cryptantha microstachys</i>	Tejon cryptantha	NL	native	annual herb
Boraginaceae	<i>Cryptantha muricata</i>	prickly cryptantha	NL	native	annual herb
Boraginaceae	<i>Cryptantha nemaclada</i>	Colusa cryptantha	NL	native	annual herb
Boraginaceae [Hydrophyllaceae]	<i>Eriodictyon traskiae</i>	Pacific yerba santa	NL	native	evergreen shrub
Boraginaceae [Hydrophyllaceae]	<i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i>	common eucrypta	NL	native	annual herb
Boraginaceae [Hydrophyllaceae]	<i>Phacelia cicutaria</i> var. <i>cicutaria</i>	caterpillar phacelia	NL	native	annual herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Brassicaceae	<i>Barbarea vulgaris</i>	yellow rocket	FACW	non-native	perennial herb
Brassicaceae	<i>Capsella bursa-pastoris</i>	shepherd's purse	FAC	non-native	annual herb
Brassicaceae	<i>Erysimum capitatum</i>	western wallflower	NL	native	perennial herb
Brassicaceae	<i>Thysanocarpus curvipes</i>	fringedpod	NL	native	annual herb
Brassicaceae	<i>Thysanocarpus radians</i>	showy fringedpod	NL	native	annual herb
Caprifoliaceae	<i>Symphoricarpos mollis</i> [S. <i>hesperius</i>]	creeping snowberry	NL	native	deciduous shrub
Convolvulaceae	<i>Calystegia longipes</i>	Piute morning glory	NL	native	perennial herb
Convolvulaceae [Cuscutaceae]	<i>Cuscuta californica</i> var. <i>californica</i>	chapparal dodder	NL	native	annual herb (parasitic)
Crassulaceae	<i>Dudleya pulverulenta</i> ssp. <i>pulverulenta</i>	chalk dudleya	NL	native	perennial herb
Cucurbitaceae	<i>Marah fabacea</i> [M. <i>fabaceus</i>]	manroot	NL	native	perennial vine
Dennstaedtiaceae	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern	FACU	native	fern
Dryopteridaceae	<i>Polystichum munitum</i>	western swordfern	NL	native	fern
Ericaceae	<i>Arctostaphylos glauca</i>	big-berry manzanita	NL	native	evergreen shrub
Ericaceae	<i>Arctostaphylos viscida</i>	white leaf manzanita	NL	native	evergreen shrub
Fabaceae	<i>Acmispon</i> [Lotus] <i>strigosus</i>	strigose lotus	NL	native	annual herb
Fabaceae	<i>Acmispon glaber</i> [Lotus <i>scoparius</i>]	deer vetch	NL	native	perennial herb
Fabaceae	<i>Amorpha fruticosa</i>	western indigo bush	FAC	native	deciduous shrub
Fabaceae	<i>Lathyrus vestitus</i> var. <i>vestitus</i>	pacific pea	NL	native	perennial herb
Fabaceae	<i>Lupinus bicolor</i>	miniature lupine	NL	native	annual herb
Fabaceae	<i>Lupinus concinnus</i>	elegant lupine	NL	native	annual herb
Fabaceae	<i>Pickeringia montana</i>	chaparral pea	NL	native	evergreen shrub
Fabaceae	<i>Rupertia physodes</i>	California tea	NL	native	perennial herb
Fabaceae	<i>Trifolium depauperatum</i> var. <i>depauperatum</i>	dwarf sack clover	FAC	native	annual herb
Fabaceae	<i>Trifolium wormskioldii</i>	coast clover	FACW	native	perennial herb
Fabaceae	<i>Vicia villosa</i>	hairy vetch	NL	non-native	annual herb or vine
Fagaceae	<i>Quercus agrifolia</i>	coast live oak	NL	native	evergreen tree
Fagaceae	<i>Quercus berberidifolia</i>	scrub oak	NL	native	evergreen tree
Fagaceae	<i>Quercus durata</i> var. <i>durata</i>	leather oak	NL	native	evergreen shrub or tree
Garryaceae	<i>Garrya elliptica</i>	coast silktassel	NL	native	evergreen shrub or tree
Geraniaceae	<i>Erodium cicutarium</i>	redstem filaree	NL	non-native	annual herb
Grossulariaceae	<i>Ribes malvaceum</i>	chaparral currant	NL	native	evergreen shrub
Grossulariaceae	<i>Ribes sanguineum</i>	redflower currant	NL	native	evergreen shrub
Isoetaceae	<i>Isoetes orcuttii</i>	Orcutt's quillwort	OBL	native	fern (aquatic)
Lamiaceae	<i>Salvia apiana</i>	white sage	NL	native	evergreen shrub
Lamiaceae	<i>Salvia columbariae</i>	chia sage	NL	native	annual herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Lamiaceae	<i>Salvia mellifera</i>	black sage	NL	native	evergreen shrub
Lamiaceae	<i>Trichostema lanatum</i>	wooly bluecurls	NL	native	evergreen shrub
Lauraceae	<i>Umbellularia californica</i>	California bay	FAC	native	evergreen tree
Liliaceae	<i>Calochortus albus</i>	white globe lily	NL	native	perennial herb
Montiaceae [Portulacaceae]	<i>Claytonia perfoliata</i> ssp. <i>mexicana</i>	miner's lettuce	FAC	native	annual herb
Myrsinaceae [Primulaceae]	<i>Anagallis arvensis</i>	scarlet pimpernel	FAC	non-native	annual herb
Onagraceae	<i>Camissoniopsis</i> [<i>Camissonia</i>] <i>intermedia</i>	no common name	NL	native	annual herb
Onagraceae	<i>Clarkia speciosa</i> ssp. <i>speciosa</i>	redspot clarkia	NL	native	annual herb
Onagraceae	<i>Clarkia unguiculata</i>	elegant clarkia	NL	native	annual herb
Onagraceae	<i>Epilobium canum</i>	California fuchsia	NL	native	perennial herb
Orobanchaceae [Scrophulariaceae]	<i>Pedicularis densiflora</i>	Indian warrior	NL	native	perennial herb
Oxalidaceae	<i>Oxalis pes-caprae</i>	Bermuda buttercup	NL	non-native	perennial herb
Paeoniaceae	<i>Paeonia californica</i>	California peony	NL	native	perennial herb
Papaveraceae	<i>Dendromecon rigida</i>	bush poppy	NL	native	evergreen shrub
Papaveraceae	<i>Eschscholzia californica</i>	California poppy	NL	native	perennial herb
Papaveraceae	<i>Platystemon californicus</i>	creamcups	NL	native	annual herb
Phrymaceae [Scrophulariaceae]	<i>Mimulus aurantiacus</i>	sticky monkeyflower	NL	native	evergreen shrub
Phrymaceae [Scrophulariaceae]	<i>Mimulus fremontii</i>	Fremont's monkeyflower	NL	native	annual herb
Phrymaceae [Scrophulariaceae]	<i>Mimulus guttatus</i>	seep monkeyflower	OBL	native	annual or perennial rhizomatous herb
Pinaceae	<i>Pinus sabiniana</i>	foothill pine	NL	native	evergreen tree
Plantaginaceae [Scrophulariaceae]	<i>Antirrhinum multiflorum</i>	chaparral snapdragon	NL	native	annual or perennial herb
Plantaginaceae [Scrophulariaceae]	<i>Collinsia heterophylla</i>	purple Chinese houses	NL	native	annual herb
Plantaginaceae [Scrophulariaceae]	<i>Keckiella cordifolia</i>	heartleaf keckiella	NL	native	evergreen shrub
Plantanaceae	<i>Platanus racemosa</i>	western sycamore	FACW	native	deciduous tree
Poaceae	<i>Aira caryophyllea</i>	silver hairgrass	NL	non-native	annual graminoid
Poaceae	<i>Avena barbara</i>	slender wild oat	NL	non-native	annual graminoid
Poaceae	<i>Bromus diandrus</i>	ripgut brome	NL	non-native	annual graminoid
Poaceae	<i>Bromus hordeaceus</i>	soft chess	FACU	non-native	annual graminoid
Poaceae	<i>Bromus madritensis</i>	foxtail chess	NI	non-native	annual graminoid
Poaceae	<i>Cynosurus echinatus</i>	hedgehog dogtail	NL	non-native	annual graminoid

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Poaceae	<i>Elymus glaucus</i>	blue wildrye	FACU	native	perennial graminoid
Poaceae	<i>Festuca [Vulpia] microstachys</i>	small fescue	NL	native	annual graminoid
Poaceae	<i>Festuca [Vulpia] myuros</i>	rattail fescue	FACU	non-native	annual graminoid
Poaceae	<i>Festuca perennis [Lolium multiflorum]</i>	Italian ryegrass	FAC	non-native	annual or biennial graminoid
Poaceae	<i>Hordeum murinum</i>	foxtail barley	NI	non-native	annual graminoid
Poaceae	<i>Melica imperfecta</i>	smallflower melic	NL	native	perennial graminoid
Poaceae	<i>Stipa [Nassella] pulchra</i>	purple needlegrass	NL	native	perennial graminoid
Polemoniaceae	<i>Leptosiphon [Linanthus] parviflorus</i>	variable linanthus	NL	native	annual herb
Polemoniaceae	<i>Linanthus californicus [Leptodactylon californicum]</i>	California linanthus	NL	native	annual herb
Polemoniaceae	<i>Navarretia atractyloides</i>	hollyleaf navarretia	NL	native	annual herb
Polemoniaceae	<i>Navarretia squarrosa</i>	skunkweed	NL	native	annual herb
Polygonaceae	<i>Chorizanthe biloba</i> var. <i>biloba</i>	two lobed spineflower	NL	native	annual herb
Polygonaceae	<i>Eriogonum fasciculatum</i>	California buckwheat	NL	native	evergreen shrub
Pteridaceae	<i>Adiantum capillus-veneris</i>	southern maiden hair fern	FACW	native	fern
Pteridaceae	<i>Adiantum jordanii</i>	California maiden hair fern	NL	native	fern
Pteridaceae	<i>Pellaea andromedifolia</i>	coffee fern	NL	native	fern
Pteridaceae	<i>Pentagramma triangularis</i>	goldback fern	NL	native	fern
Ranunculaceae	<i>Clematis lasiantha</i>	chaparral clematis	NL	native	perennial herb or vine
Ranunculaceae	<i>Delphinium parryi</i> ssp. <i>parryi</i>	Parry's larkspur	NL	native	perennial herb
Ranunculaceae	<i>Enemion [Isopyrum] occidentale</i>	western false rue anemone	NL	native	perennial herb
Ranunculaceae	<i>Thalictrum fendleri</i> var. <i>polycarpum</i> [<i>T. polycarpum</i>]	Fendler's meadow rue	FACU	native	perennial herb
Rhamnaceae	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	buckbrush	NL	native	evergreen shrub
Rhamnaceae	<i>Ceanothus leucodermis</i>	chaparral whitethorn	NL	native	evergreen shrub
Rhamnaceae	<i>Ceanothus oliganthus</i>	hairy ceanothus	NL	native	evergreen shrub
Rhamnaceae	<i>Frangula [Rhamnus] californica</i>	coffeeberry	NL	native	evergreen shrub
Rhamnaceae	<i>Rhamnus crocea</i>	redberry	NL	native	evergreen shrub
Rosaceae	<i>Adenostoma fasciculatum</i>	chamise	NL	native	evergreen shrub
Rosaceae	<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birch-leaf mountain mahogany	NL	native	evergreen shrub
Rosaceae	<i>Drymocallis [Potentilla] glandulosa</i>	no common name	FAC	native	perennial herb
Rosaceae	<i>Heteromeles arbutifolia</i>	toyon	NL	native	evergreen shrub
Rosaceae	<i>Prunus emarginata</i>	bitter cherry	NL	native	deciduous shrub or tree
Rosaceae	<i>Prunus ilicifolia</i>	holly-leaf cherry	NL	native	evergreen shrub
Rosaceae	<i>Rubus ursinus</i>	California blackberry	FACW	native	deciduous to evergreen shrub
Rubiaceae	<i>Galium aparine</i>	common bedstraw	FACU	native	annual herb
Rubiaceae	<i>Galium californicum</i>	California bedstraw	NL	native	perennial herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Rubiaceae	<i>Galium porrigens</i>	climbing bedstraw	NL	native	evergreen vine or shrub
Salicaceae	<i>Salix laevigata</i>	red willow	FACW	native	deciduous tree
Salicaceae	<i>Salix lasiolepis</i>	arroyo willow	FACW	native	deciduous tree
Saxifragaceae	<i>Micranthes [Saxifraga] californica</i>	no common name	NL	native	perennial herb
Solanaceae	<i>Solanum xanti</i>	chaparral nightshade	NL	native	perennial herb or subshrub
Themidaceae [Liliaceae]	<i>Dichelostemma capitatum</i>	blue dicks	NL	native	perennial herb
Urticaceae	<i>Parietaria hespera</i>	pellitory	NL	native	annual herb
Verbenaceae	<i>Verbena lasiostachys</i>	vervain	FAC	native	perennial herb
Violaceae	<i>Viola purpurea</i> ssp. <i>purpurea</i>	goosefoot violet	NL	native	perennial herb

*Plants were primarily identified using *The Jepson Manual Second Edition* (B.G. Baldwin et al 2012), to the taxonomic level necessary to determine rarity. Some plants were cross referenced and identified using *The Jepson Manual* (Hickman 1993) as some agencies and jurisdictions may base rarity on older names. Names given follow B.G. Baldwin et al (2012), with synonyms from Hickman (1993) noted in brackets.

**wetland indicator status from Reed (1988)

Appendix C-2. Wildlife species observed in the RPA Area

Common name	Scientific name
Mammals	
Brush rabbit	<i>Sylvilagus bachmani</i>
Dusky-footed woodrat (houses)	<i>Neotoma fuscipes</i>
Coyote (tracks and scat)	<i>Canis latrans</i>
Mountain lion (tracks and scat)	<i>Puma concolor</i>
Birds	
California quail	<i>Callipepla californica</i>
Turkey vulture	<i>Cathartes aura</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Golden eagle	<i>Aquila chrysaetos</i>
American kestrel	<i>Falco sparverius</i>
Band-tailed pigeon	<i>Patagioenas fasciata</i>
Great horned owl	<i>Bubo virginianus</i>
Acorn woodpecker	<i>Melanerpes formicivorus</i>
Northern flicker	<i>Colaptes auratus</i>
Black phoebe	<i>Sayornis nigricans</i>
Hutton's vireo	<i>Vireo huttoni</i>
Western scrub-jay	<i>Aphelocoma californica</i>
American crow	<i>Corvus brachyrhynchos</i>
Oak titmouse	<i>Baeolophus inornatus</i>
Chestnut-backed chickadee	<i>Poecile rufescens</i>
Bushtit	<i>Psaltriparus minimus</i>
White-breasted nuthatch	<i>Sitta carolinensis</i>
Bewick's wren	<i>Thryomanes bewickii</i>
Pacific (winter) wren	<i>Troglodytes pacificus</i>
Ruby-crowned kinglet	<i>Regulus calendula</i>
Western bluebird	<i>Sialia mexicana</i>
Hermit thrush	<i>Catharus guttatus</i>
Wrentit	<i>Chamaea fasciata</i>
California thrasher	<i>Toxostoma redivivum</i>
European starling	<i>Sturnus vulgaris</i>
Orange-crowned warbler	<i>Oreothlypis (Vermivora) celata</i>
Yellow-rumped warbler	<i>Setophaga (Dendroica) coronata</i>
Spotted towhee	<i>Pipilo maculatus</i>
California towhee	<i>Pipilo crissalis</i>
Fox sparrow	<i>Passerella iliaca</i>
Song sparrow	<i>Melospiza melodia</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>
Dark-eyed junco	<i>Junco hyemalis</i>
Western meadowlark	<i>Sturnella neglecta</i>
Lesser goldfinch	<i>Carduelis psaltria</i>
Reptiles	
Western fence lizard	<i>Sceloporus occidentalis</i>
Southern alligator lizard	<i>Gerrhonotus multicarinatus</i>
California (western) whiptail	<i>Cnemidophorus tigris mundus</i>
California whipsnake	<i>Masticophis lateralis</i>