4.3 BIOLOGICAL RESOURCES

*Agricultural Residential Cluster Subdivision. The Agricultural Residential Cluster Subdivision site contains one human-created "non-natural" and ~~nine~~ **12** natural plant communities and/or wildlife habitat types. The natural habitat types include California annual grassland, ~~valley needlegrass~~ **native perennial** grassland, central (Lucian) scrub, chamise chaparral, blue oak woodland, coast live oak woodland, valley oak woodland, riparian/riverine, ~~and~~ emergent wetland~~/seasonal pool~~, **seasonal pools, mixed oak woodland and ruderal**. The non-natural habitat is agriculture (vineyard ~~and stock pond~~). Impacts to common habitat types such as California annual grassland, central (Lucian) coastal scrub, and chamise chaparral would be Class III, less than significant unless they support special-status species. ~~Two of the habitat types, valley needlegrass grassland and valley oak woodland, are considered Plant Communities of Special Concern by the California Department of Fish and Game (CDFG).~~ Agricultural Residential Cluster Subdivision impacts to the ~~Plant Communities of Special Concern~~ **native perennial grassland, which is a rare plant community and includes valley needlegrass grassland, which is a California Department of Fish and Game (CDFG) Sensitive Natural Plan Community,** would be Class II, significant but mitigable. **Impacts related to the removal of and/or impact to blue oak, coast live oak, and valley oak trees, as well as conversion of native oak woodland habitat, would be Class I, significant unavoidable.** Riparian/riverine and emergent wetland~~/seasonal pool~~ habitats, including Trout and Tostada Creeks, several unnamed ephemeral drainages and their adjacent wetlands, and seasonal pools located throughout the Agricultural Residential Cluster Subdivision site, are likely to be under the jurisdiction of the U. S. Army Corps of Engineers (ACOE), CDFG, Regional Water Quality Control Board (RWQCB) and in some cases National Oceanic and Atmospheric Administration **National Marine** Fisheries **Service** (~~NOAA Fisheries~~ **NMFS**). Impacts to ACOE, CDFG, RWQCB and ~~NOAA Fisheries~~ **NMFS** jurisdictional areas would be Class II, significant but mitigable. ~~Residential development impacts to blue oak woodland and coast live oak woodland habitat types would be Class I, significant unavoidable.~~*

*Development of the Agricultural Residential Cluster Subdivision would reduce the populations and available habitat of ~~twenty~~ special-status plant and wildlife species and alter the existing wildlife corridors for wildlife movements through the site. Implementation of the Agricultural Residential Cluster Subdivision would impact one special-status plant species, the San Luis Obispo Mariposa Lily, a CNPS List 1B plant species, and may impact San Luis Obispo County morning glory, also a CNPS List 1B species, which would be a Class II, significant but mitigable, impact. Implementation of the proposed Agricultural Residential Cluster Subdivision would impact ~~two~~ **three** ~~F~~**f**ederally ~~T~~**t**hreatened species, the **Vernal Pool Fairy Shrimp (VPFS), the South/Central California Coast Steelhead (Steelhead), and the** California red-legged frog (CRLF) ~~and southern steelhead (SS)~~. Project impacts to **VPFS,** CRLF and ~~SS~~ **Steelhead** and their habitat would be Class II, significant but mitigable. Two State Fully Protected wildlife species, the white-tailed kite and golden eagle, were observed foraging and potentially nesting within the residential footprint. Agricultural Residential Cluster Subdivision impacts to the State Fully Protected raptor species, and their foraging and nesting habitat is Class II, significant but mitigable. Numerous CDFG California Special Concern (CSC) wildlife species were identified on-site or have high potential to occur within the Agricultural Residential Cluster Subdivision and include the Cooper's hawk, sharp-shinned hawk, pallid bat, American badger, legless lizard, southwestern pond turtle, and several other species. Agricultural Residential Cluster Subdivision impacts to CSC wildlife species and their habitat would be Class II, significant but mitigable. Because of the size, relatively undisturbed aspect, degree of habitat diversity, and known or potential presence of special-status wildlife species on and in the vicinity of the Agricultural Residential Cluster Subdivision site, the loss of wildlife habitat is a Class II, significant but mitigable, impact. The Agricultural Residential Cluster Subdivision*

would further reduce the migration corridor for special-status and common wildlife species, which would be a Class II, significant but mitigable, impact.

Future Development Program. Because no active application currently exists for the Future Development Program subsequent to the Agricultural Residential Cluster Subdivision, the assessment of biological resources impacts is based on a reasonable worst case scenario with regard to the location of future land uses within anticipated development areas. Buildout of the Future Development Program would result in impacts similar to those resulting from the Agricultural Residential Cluster Subdivision. The mitigation measures identified for the Agricultural Residential Cluster Subdivision would similarly apply to the Future Development Program. Impacts to special-status species and their habitats, wildlife corridors, and other special-status biological resources would be Class II, significant but mitigable~~, impacts. Development impacts to blue oak woodland and coast live oak woodland habitat types would be Class I, significant unavoidable.~~ ***Impacts related to the removal of and/or impact to blue oak, coast live oak, and valley oak trees, as well as conversion of native oak woodland habitat, would be Class I, significant unavoidable.***

4.3.1 Setting

The description of existing biological resources on the Agricultural Residential Cluster Subdivision site and Future Development Program area is based on the review of background documents (Althouse and Meade, Inc., 2003, McClelland Engineers, 1987, and Olberding Environmental, 2005) and a series of field surveys conducted by Rincon Consultants biologists between October 24, 2005 and June 5, 2006. Information on documented occurrences of special-status species on-site was obtained through communication with Althouse and Meade, with Rincon Consultants field verifications. Other species not previously observed on-site, but with the potential to occur within the project site were identified through a search of the California Natural Diversity Data Base (CNDDB) RareFind 3.0.1 (2006), knowledge of the area, and discussions with the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) biologists.

Extensive general and focused surveys for special-status and common plant and wildlife species have been conducted on the Santa Margarita Ranch property. As part of this EIR, Rincon Consultants biologists conducted focused botanical and wildlife surveys and a wetland delineation review. Focused (or seasonally timed) rare plant surveys were conducted in the spring and summer of 2006 for the Agricultural Residential Cluster Development area per California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife (USFWS) guidelines (CDFG, 1998 and USFWS, 2000). **Rincon Consultants prepared a protocol site assessment of suitable habitats within the Agricultural Residential Cluster Development area for listed vernal pool branchiopods and the California red-legged frog (Rincon Consultants, 2006a). One ~~P~~p**rotocol wet-season survey~~s~~ for the federally threatened vernal pool fairy shrimp ~~and the California red-legged frog~~ per USFWS guidelines (~~1998 and 2005~~ **1996**) ~~were~~ **was** conducted ~~for~~ **at** seasonal pools ~~and creeks~~ within and adjacent to the Agricultural Residential Cluster Subdivision during the winter and spring of 2006 by Rincon Consultants (Rincon Consultants, 2006**b**). **Protocol California red-legged frog surveys were also conducted by Rincon Consultants.** In addition, Rincon biologists field verified the Army Corps of Engineers (ACOE) wetland determination conducted by Olberding (2000 and revised 2005).

In addition to the focused surveys performed by Rincon Consultants, prior surveys were completed on the Santa Margarita Ranch. Althouse and Meade conducted a thorough wildlife and plant inventory (Inventory; Althouse and Meade, 2003, revised 2005) and a plant and wildlife survey for the Phase I vineyards (Althouse and Meade, *unpublished*) located in the southwestern portion of the Agriculture Residential Cluster Subdivision. Dr. David Keil and LynnDee Althouse conducted a focused wetland plant survey for on-site wetland and adjacent upland areas on the property (Althouse and Meade, 2002, *unpublished*). As part of the ~~I~~inventory efforts, Julie Thomas conducted **one** non-protocol wet-season surveys~~-~~ for fairy shrimp within several on-site seasonal pools (Thomas, 2003). In addition, Paul Collins performed a USFWS protocol survey within Taco Creek for the Robert Mondavi Safe Harbor Agreement Area (Althouse and Meade, 2004). Several other surveys were performed and included a focused bat survey, small mammal trapping surveys, electrofishing and snorkel surveys for steelhead and other fish species, focused special-status amphibian pool surveys, and mammal spotlighting surveys. The combined survey time used to document general and special-status biological resources for the property totaled over 3,000 field hours. Table 4.3-1 provides the biological categories, performed survey types, surveyors, and approximate hours spent per survey type. As a result of the extensive field work performed for the property, only special-status species observed during focused and/or general surveys are included herein with the exception of wildlife species that have potential to occur on-site, but require focused surveys that were not performed as part of this evaluation.

Table 4.3-1 Biological Survey Types Performed for the Santa Margarita Ranch

Biota Group	Survey Type	Surveyors[*1]	Approx. Hours
Plants	Quadrat and General	J. Dart, D. Meade, L, Althouse, C. England	196
	Focused Rare Plant	D. Keil, L. Althouse, V. Holland, J. Dart, C. England	232
	Sudden Oak Death	T. Kleeman, L. Althouse	8
	EIR – Focused Rare Plant	J. Davis, K. Merk, and P. Farrell	80
	Wetland Delineation	J. Isaacs, G. Liu, R. Lodge, R. Rossi, J. Olberding, L. Althouse, C. England, D. Martel	254
	EIR - Wetland Delineation Review	K. Merk, J. Davis	48
Insects and Crustaceans	Point Collections	D. Meade, J. Dart, C. Murphy, C. England	212
	Fairy Shrimp non-protocol – wet-season	J. Thomas, J. Dart, D. Meade**, L. Althouse**	76
	EIR – Fairy Shrimp USFWS protocol, wet-season	J. Davis, P Farrell, C. Powers, K. Merk, J. Dart	96
Fish	General	J. Dart	2
	Electro-fishing	M. Hill, D. Highland, D. Meade, and J. Dart	32
	Steelhead	R. Larsen, L. Thompson, B. Hodges	?
Amphibian	Special-Status Species: Dip and Seine	P. Collins, J. Dart, L. Althouse, D. Meade, M. Caterino	264
	CRLF USFWS Protocol **Surveys**	~~D. Meade,~~ J. Dart, P. Collins~~, L. Althouse,~~ C. England~~, R. Bransfield, M. Root, and J. Vanderwier~~	164
	Pond Surveys – 1603 Permit	L. Althouse, J. Issacs, M. Hill, C. Veenstra, P. Gomes	36
	General	J. Dart, D. Meade	34
	*EIR – CRLF USFWS Protocol **Site Assessment and Surveys***	J. Davis, K. Merk, P. Farrell, J. Dart, W. Knight	160
Reptile	General and coverboard	J. Dart, C. Murphy	292
Bird	Point Count	J. Dart, C. Murphy, F. Villablanca, T. Edell	434

Table 4.3-1 Biological Survey Types Performed for the Santa Margarita Ranch

Biota Group	Survey Type	Surveyors[*1]	Approx. Hours
Mammal	Small mammal trapping	J. Dart, F. Villablanca, Cal Poly Senior Project Students	176
	Bat surveys; acoustic and visual	P. Collins, J. Dart, S. Seay	44
Wildlife	General and spotlighting	J. Dart, D. Meade, F. Villablanca, L. Althouse, C. England	256
		Total	3,096

[*1] ***Althouse and Meade:***
LynneDee Althouse
Jason Dart
Cletis England
Jodi Isaacs
Dan Meade, PhD.
Cassie Murphy
Stephanie Seay

Rincon Consultants:
John H. Davis IV
Paige Farrell
Kevin Merk
Chris Powers

Cal Poly, San Luis Obispo:
~~*Cletis England*~~
V.L. Holland, PhD.
David Keil, PhD.
~~*Cassie Murphy*~~
Francis Villablanca, PhD.
Senior Project Students

Santa Barbara Natural History Museum:
Mike Caterino
Paul Collins

Other Consultants:
Tom Edell
Brian Hodge, U.C. Davis
Royce Larsen, UCCE
Jeff Olberding
Julie Thomas
Lisa Thompson, U.C. Davis

California Department of Fish and Game:
Mike Hill
Dave Highland

Regional Water Quality Control Board:
Ryan Lodge

U.S. Army Corp of Engineers:
Gordon Liu
Phelicia Gomes
Dan Martel
Corrie Veenstra

U.S. Department of Agriculture:
Tamara Kleeman

U.S. Fish and Wildlife Service:
Ray Bransfield
Mary Root
Julie Vanderwier

a. Characterization of the Santa Margarita Ranch Area. The Agricultural Residential Cluster Subdivision site is located approximately 9.5 miles northeast of the City of San Luis Obispo on the approximately 14,000 acre Santa Margarita Ranch (Ranch) within the County of San Luis Obispo. The Ranch is situated within the southern portion of the San Lucia Mountains of the greater South Coast Range. Locally, these mountains consists of flat valleys to steeply sloping hills ranging in elevation from approximately 900 feet above mean sea level (msl) within Santa Margarita Valley to about 2,858 feet msl at Lopez Mountain approximately 2.75 miles southwest of the Ranch. The plant communities surrounding the Ranch are diverse and range from grasslands, chaparral, oak woodland, and riparian to knobcone pine forest and Sargent's cypress forest.

The Agricultural Residential Cluster Subdivision site is located in the southern portion of the Santa Margarita Ranch, south**east** of the community of Santa Margarita and west of West Pozo Road. Los Padres National Forest is to the **south**west, and Taco Creek and the remainder of the Santa Margarita Valley is to the south**east.** The habitats in the vicinity if the property are composed of grasslands, coastal scrub, chaparral, oak woodlands, riparian, and emergent wetlands/seasonal pools that occur in a mosaic pattern across the landscape. Perennial and intermittent streams, which support riparian habitat for resident and migratory wildlife species, occur throughout the region. Vineyards comprise a substantial portion of the agricultural landscape within the southern portion of the Agricultural Residential Cluster Subdivision site, while dry farmed grains are found in the northern portion of the Ranch property. Cattle ranching occurs within on-site habitats with the exception of dry-farmed and vineyard areas.

b. Habitat Types. ~~Ten~~ **Thirteen** habitat types were identified within the Agricultural Residential Cluster Subdivision site, and include: 1) California annual grassland, 2) ~~valley needlegrass grassland~~ **native perennial grassland**, 3) central (Lucian) scrub, 4) chamise

chaparral, 5) blue oak woodland, 6) coast live oak woodland, 7) valley oak woodland, 8) riparian/riverine, 9) emergent wetland~~/ seasonal pool, and~~**,** 10) ~~agriculture~~ **seasonal pools, 11) mixed oak woodland, 12) ruderal, and 13) agriculture (vineyard)**. Classification of the on-site habitat types or plant communities was based generally on Holland's *Preliminary Description of the Terrestrial Natural Communities of California* (1986), and was compared to more recent habitat classification systems ~~for accuracy~~ (Sawyer and Keeler-Wolf, 1995, and Holland and Keil, 1995). Cowardin's *Classification of Wetlands and Deepwater Habitats of the United States* (1979) was used to classify the wetland habitat. In addition, two creeks and several ephemeral drainage features are located within the Agricultural Residential Cluster Subdivision boundaries that are "waters" of the United States under the jurisdiction of the ACOE, and streambeds and associated riparian habitat potentially under CDFG jurisdiction under Fish and Game Code Section 1600 *et. seq*. A description of habitat types identified on the Agricultural Residential Cluster Subdivision site is provided below. The discussion of habitat types includes a brief description of common plant and wildlife species that were observed or that can be expected to occur within each on-site habitat type. A detailed discussion of special-status species is provided in Section 4.3.1(e): *Special-Status Species*. Several habitat descriptions for the Agricultural Residential Cluster Subdivision also apply to areas within the Ranch property designated as Future Development Program conceptual land use areas; however, specific community elements may vary. The location and extent of each habitat type is depicted on Figure 4.3-1 and quantified in Table 4.3-2.

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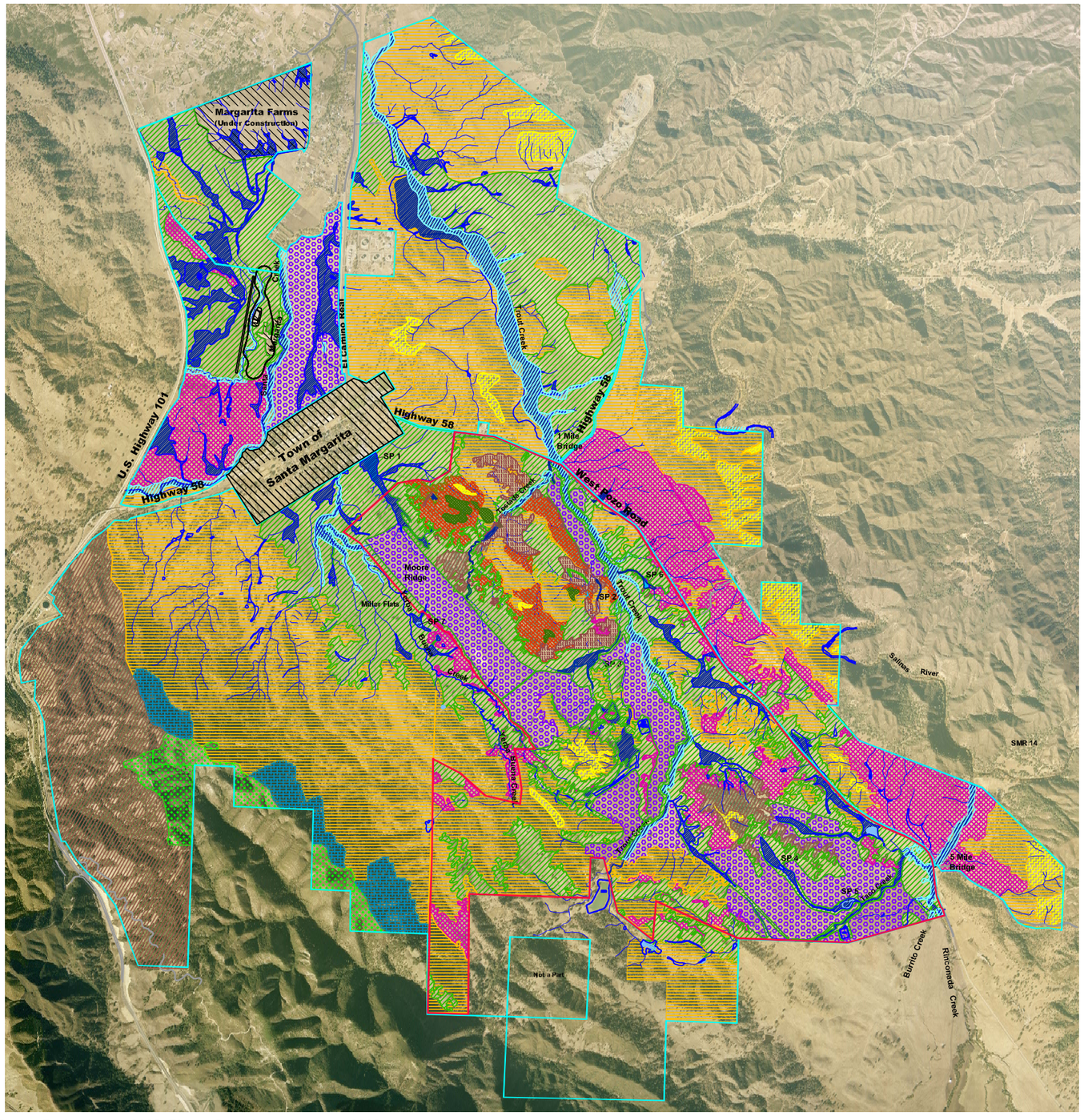

Habitat Map

Figure 4.3-1

Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006.

Table 4.3-2 Agricultural Residential Cluster Subdivision Site Habitat Summary Table

Habitat Type	Approximate Acres
California annual grassland	~~1103.6~~ **1151.3**
~~Valley needlegrass grassland~~ **Native perennial grassland**	~~66.8~~ **79.8**
Central (Lucian) coastal scrub	~~20.7~~ **20.5**
Chamis**e** chaparral	~~30.8~~ **33.9**
Blue oak woodland	~~943.0~~ **890.0**
Coast live oak woodland	~~235.5~~ **104.3**
Valley oak woodland	~~224.7~~ **215.7**
Mixed oak woodland	**190.4**
Riparian/riverine	~~100.3~~ **41.6**
Emergent wetlands~~/Seasonal Pools~~	~~182.4~~ **191.7**
Seasonal pools	**4.8**
Ruderal	**0.5**
Agriculture (vineyards and stock ponds)	~~870.6~~ **853.6**
Total Acres	**3,778.0**

California Annual Grassland. The California Annual Grassland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Non-Native Grassland plant community as described by Holland **(1986)** and the California Annual Grassland series (i.e., plant community) as described by Sawyer and Keeler-Wolf **(1995)**. This habitat type is typically found on seasonally dry hillsides and valleys in the Central Valley, interior valleys of the Coast Ranges, and along the coast of central and southern California as well as some of the off-shore islands. Although annual grasses form the dominant plant species composition, often native annual forbs offer the greatest diversity in select areas. This mix of grasses and forbs are often found on gravelly to deep fine-grained soils **that are** well suited for annual growth. California annual grassland occurs throughout the Agricultural Residential Cluster Subdivision site in valleys, swales, and on ridges between oak woodlands, riparian, and wetlands habitats**. It** ~~and~~ also forms the understory of many of the **open** oak woodland habitats ~~and open valley oak woodland~~ (savanna) in several locations**.** California annual grassland comprises ~~1103.6~~ **1,151.3** acres or ~~29.2~~ **30.5**% of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is composed primarily of non-native short to tall annual grasses and native and non-native broad-leafed forbs. Noxious weeds are also present in disturbed areas adjacent to this habitat type. Dominant grasses include soft chess (*Bromus hordeaceous*), ripgut grass (*Bromus diandrus*), slender wild oats (*Avena barbata*), Italian ryegrass (*Lolium multiflorum*), rat-tail fescue (*Vulpia myuros*), red-stem filaree (*Erodium cicutarium*), Italian thistle (*Carduus pycnocephalus*), and tocalote (*Centaurea melitensis*), while native flowering herbs include the Paso Robles navarretia (*Navarretia jaredii*), Jolon brodiaea (*Brodiaea jolonesis*), California milkweed (*Asclepias californica*), turkey mullein (*Eremocarpus setigerus*), California poppy (*Eschscholzia californica*), hayfield tarweed (~~*Hemizonia*~~ ***Deinandra*** *congesta* ssp. *luzulifolia*), and yarrow (*Achillea millefolium*). A few scattered coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*) trees can also be found within this habitat type.

California annual grasslands provide foraging and/or breeding habitat and movement corridors for wildlife species in the area. Mammals including mountain lion (*Felis concolor*), bobcat *(Lynx rufus*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), Botta's pocket gopher (*Thomomys bottae*), American badger (*Taxidea taxus*), and California ground squirrel (*Spermophilus beecheyi*) have been observed within the California annual grassland habitat. Several of these species, such as the American badger, California ground squirrel, Botta's pocket gopher, and deer mice (*Peromyscus* spp.), are known to breed within this habitat type.

Currently, the California annual grassland habitat within the Agricultural Residential Cluster Subdivision site is ~~a vital migratory or~~ **important for** dispersal ~~corridor~~ **and foraging** ~~used~~ by mammals and other vertebrate taxa. Birds including raptors ("birds of prey") such as golden eagle (*Aquila chrysaetos*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*), along with other common bird species such as western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), lark sparrow (*Chondestes grammacus*), yellow-billed magpie (*Pica nuttalli*), black phoebe *(Sayornis nigricans),* Brewer's blackbird (*Euphagus cyanocephalus),* and goldfinches (*Carduelis* spp.) rely on open expanses of grasslands for foraging habitat and are common in the Santa Margarita area. Grasslands that are bordered by habitats containing trees are particularly important for raptors because the birds can use the large trees as nesting, roosting, and as observation points to locate potential prey within nearby grassland habitats. Reptiles and amphibians common to grasslands have been observed on-site and include coast range fence lizard (*Sceloporus occidentalis bocourtii*), California alligator lizard (*Elgaria multicarinatus multicarinatus*), San Diego gophersnake (*Pituophis catenifer annectens*), California kingsnake (*Lampropeltis getula californiae*), ~~Pacific~~ ring-necked snake (*Diadophis punctatus* ~~ssp. *vandenburghi*~~) and coast gartersnake (*Thamnophis elegans* ~~ssp~~. *terrestris*). In addition, in areas on the Agricultural Residential Cluster Subdivision site where California annual grassland surrounds creeks, wetlands, and seasonal pools amphibians including bullfrog (*Rana catesbeiana*), California red-legged frog (*Rana ~~aurora~~ draytonii*), California ~~(western)~~ toad (*Bufo boreas halophilus*), Pacific ~~chorus~~ **tree**frog (*~~Pseudacris~~**Hyla** regilla*) and reptiles including the southwestern pond turtle (*Actinemys marmorata pallida*) and California kingsnake are also seasonally evident.

~~Valley Needlegrass Grassland. The Valley Needlegrass Grassland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Valley Needlegrass Grassland plant communities as described by Holland and the Purple Needlegrass series described by Sawyer and Keeler-Wolf. Historically, valley needlegrass grassland and other native grasslands covered approximately 25% of California and were browsed and maintained in part by mule deer, tule elk (*Cerus elaphus nannodes*), and pronghorn (*Antilocarpra americana*). With the onset of Spanish settlers in the 1700's, heavy cattle grazing and conversion to dry-land farming modified native grassland habitats. Today, the California annual grassland habitat has replaced most of the native grassland cover with the exception of patches of valley needlegrass grassland in less disturbed areas and on serpentinite soils. Vegetation within this habitat on-site is dominated by purple needlegrass (*Nassella pulchra*), but also contains other native and non-native annual grasses and annual and perennial forbs also found in the California annual grassland. Slender wild oats is a co-dominant plant species in the on-site valley needlegrass grassland habitat. In addition, valley needlegrass grassland habitat also provides similar to greater habitat value for wildlife species found in the California annual grassland. Refer to the description of California annual grassland habitat above for other plants and wildlife observed or expected to occur in the valley needlegrass grassland habitat. Valley~~

~~needlegrass grassland is found in open areas on moderately sloping hillsides in the northern portion of the Agricultural Residential Cluster Subdivision site and comprises 66.8 acres or 1.8% of the vegetation cover.~~

Native Perennial Grassland. The three most common native perennial grasses found on-site are purple needlegrass *(Nassella pulchra),* Sandberg's bluegrass (*Poa secunda*), deergrass (*Muhlenbergia rigens*), and California oatgrass (*Danthonia californica*). Valley needlegrass grassland (as designated by Holland 1986) occurs within this habitat type, and is described by Sawyer and Keeler-Wolf (1995) as Purple Needlegrass. Purple needlegrass is present with approximately 10% cover in this habitat type, but due to natural seasonal and annual variation as well as grazing regime, percent cover estimates are expected to vary over time. Areas with stands of deergrass are common on the Agricultural Residential Subdivision site along intermittent drainages and the margins of wetlands. Patches of Native Perennial Grassland may have a large component of species found in California annual grassland. This plant community also occurs as an understory in oak woodlands. Additional plant species and the animals species expected to be found in native perennial grassland include most species that are described under California Annual Grassland. Valley needlegrass grassland is listed by the California Department of Fish and Game as a special status Natural Community. Native perennial grassland comprises 79.8 acres or 2.1% of the vegetative cover within the Agricultural Residential Subdivision site.

Central (Lucian) Coastal Scrub. The Central (Lucian) Coastal Scrub habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Central (Lucian) Coastal Scrub plant community described by Holland **(1986)** and the California sagebrush series described by Sawyer and Keeler-Wolf **(1995)**. Coastal scrub communities ~~consist of a dense canopy of shrubs~~ **are** adapted to drier south-facing slopes and terraces along the coastal zone of California and northern Baja California. In southern California, coastal scrub also occurs within the interior valleys and foothills of the Transverse and Peninsular Mountain Ranges. In Central California, from Monterey to Point Conception, coastal scrub occurs primarily below 2,000 feet on the ocean side of the Santa Lucia range. Within the Agricultural Residential Cluster Subdivision site, central (Lucian) coastal scrub occurs on hilltops in openings within oak woodland habitats and south-facing slopes in the northern portion of the site. Central (Lucian) coastal scrub comprises ~~20.7~~ **20.5** acres or ~~0.6~~ **0.5**% of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is composed primarily of soft-leaved deciduous shrubs three to six feet tall ~~that form a dense canopy over~~ **that occur on** rocky **or sandy** nutrient poor soils. Evergreen shrubs are also often present within this habitat type. The dominant shrub observed on-site is California sagebrush (*Artemisia californica*), while native sub-shrubs and herbaceous plant species such as deerweed (*Lotus scoparius*), rock rose (*Helianthemum scoparium*), lilac mariposa lily (*Calochortus splendens*), California peony (*Paeonia californica*), and holly-leaved navarretia (*Navarretia atractyloides*) are also present within this understory of this community.

Central **(Lucian)** Coastal Scrub provides foraging or breeding habitat and movement corridors for several wildlife species in the area. Mammals including bobcat, coyote, mule deer, and big-eared woodrat (*Neotoma macrotis*), California mouse (*Peromyscus californica*), and brush rabbit (*Sylvilagus bachmani*) have been observed foraging within this habitat. It is likely that the big-eared woodrat, brush rabbit, and deer mice also breed within this habitat. Common birds

including California thrasher (*Toxostoma redivivum*), blue-gray gnatcatcher (*Polioptila caerulea*), and Bewick's wren (*Thryomanes bewickii*) rely on the dense foliage for foraging and breeding habitat and are common on-site. Other bird species observed in neighboring habitats such as oak woodland may use this habitat for foraging, but not for breeding. Reptiles common to coastal scrub that have been observed on-site include coast range fence lizard, California alligator lizard, San Diego gophersnake, common king snake, and southern Pacific rattlesnake (*Crotalus viridus helleri*). The small areas of on-site Central **(Lucian)** Coastal Scrub are considered to be of high habitat quality due to their relatively undisturbed nature and connectivity with several other **native** habitat types.

Chamise Chaparral. The Chamise Chaparral habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Chamise Chaparral (Chamisal) plant community as described by Holland **(1986)** and the Chamise series as described by Sawyer and Keeler-Wolf **(1995)**. Chaparral is ~~very~~ widespread in California, ~~covering flatter areas~~ **occurring** on sandy soils near the coast ~~to~~ **and** steep, rocky south-facing slopes of the Coast Ranges and the inland Sierra Nevada Mountain Range. The on-site **Chamise** Chaparral is located in the more xeric areas on gently to steeply sloping hills and in the understory of the coast live oak woodland ~~and is characterized primarily by the evergreen, sclerophyllous (hard-leaved) shrub~~. Chamise Chaparral comprises ~~30.8~~ **33.9** acres or ~~0.8~~ **0.9**% of the ~~vegetation~~ **vegetative** cover on the Agricultural Residential Cluster Subdivision site.

Vegetation in this habitat type is ~~composed primarily of~~ **characterized primarily by evergreen, sclerophyllous (hard-leaved) shrubs. The dominant species is** chamise (*Adenostoma fasciculatum*), **and** ~~O~~**o**ther shrub species include big berry manzanita (*Arctostaphylos glauca*), ~~and~~ buckbrush (*Ceanothus cuneata*)**, and buckwheat (*Eriogonum* spp.)**. Native herbaceous plant species such as deerweed, rock rose (*Helianthemum scoparium*), ~~buckwheat (*Eriogonum* spp.),~~ winecup clarkia (*Clarkia purpurea*), red-spot clarkia (*Clarkia speciosa* ssp. *speciosa*), holly-leaved navarettia, and Michael's rein orchid (*Piperia michaelii*) are also present within this community.

On-site **chamise** chaparral provide**s** cover and nesting **habitat** for a variety of animals such as coast range fence lizard, southern Pacific rattlesnake, California whipsnake (*Masticophis lateralis*), blue-gray gnatcatcher, wrentit (*Chamae fasciata*), greater roadrunner (*Geococcyx californianus)*, deer mouse, and gray fox (*Urocyon cinereoargentus*). The Chamise Chaparral located on the Agricultural Residential Cluster Subdivision site is considered to be of high habitat quality due to its relatively undisturbed nature and contiguous connection with major expanses of open space.

Oak ~~w~~**W**oodland. This habitat comprises approximately ~~1,403~~ **1,400.4** of the 3,778 acre Agricultural Residential Cluster Subdivision area (37%)**.** ~~and is dominated by~~ **On-site oak woodland varies from** open (savanna) **habitats with a grassland understory** to closed canop~~ies~~**y woodlands dominated** ~~of~~ **by** blue oak and coast live oak. Valley oak (*Quercus lobata*) occurs adjacent to ~~intermittent and~~ ephemeral drainages, as a component of the ~~blue~~ **mixed** oak woodland, and as ~~a~~ **the** ~~dominant oak tree in open woodlands~~ **species in some savanna habitats**. ~~Occasionally, o~~**O**ak trees ~~of all three species~~ **that** occur **on-site** scattered within ~~the on-site~~ grassland habitats **as oak savanna**~~, but do not occur at a frequency that warrants designating additional oak woodland habitat in these locations~~ **generally were mapped as grassland habitat, depending on the density of oak trees**.

The understory species composition in oak woodland habitat types varies depending upon local conditions such as moisture availability and soil type in addition to the historical use of the land for agricultural practices such as grazing. The majority of the oak woodland understory on the Agricultural Residential Cluster Subdivision site is composed of native and non-native perennial and annual grasses and forbs characteristic of on-site ~~valley needlegrass~~ **native perennial** grasslands and California annual grassland habitats. In the northern portion of the Agricultural Residential Cluster Subdivision site, chamise chaparral species can also be found in the understory. ~~The on-site oak woodlands provide~~ **Other species present in the** understory ~~habitat for a diversity of plant species,~~ includ~~ing~~**e** poison oak (*Toxicodendron diversilobum*), sticky monkey flower (*Mimulus aurantiacus*), mugwort (*Artemisia douglasiana*), ~~as well as species described above in the California annual grassland and valley needlegrass grassland habitat types. A few widely scattered shrub species were also observed in the understory and along the fringe of oak woodland and included~~ toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), and blue elderberry (*Sambucus mexicanus*).

Oak woodlands, in general, provide good habitat for a large variety of ~~wildlife~~ **animal** species. Oaks provide nesting/roosting sites and cover for birds, bats, and many other mammals. Dead and decaying oak trees ~~with few branches or no leaves~~ provide perches from which to search for prey and resting spots for ~~other~~ **many** bird species. They also contribute woody debris to the duff in the woodland understory which provides foraging areas for small mammals and microclimates suitable for amphibians and reptiles in addition to fungi. Acorns are a valuable food source for many animal species, including acorn woodpecker (*Melanerpes formicivorus*), scrub jay (*Aphelocoma corulescens*), western gray squirrel (*Sciurus griseus*), and mule deer. Bird species observed within on-site oak woodland include American kestrel, red-shouldered hawk (*Buteo lineatus*), spotted towhee (*Pipilo maculates)*, Bewick's wren, western bluebird (*Sialia mexicana*), bushtit *(Psaltriparus minimus),* California towhee *(Pipilo crissalis)*, dark-eyed junco (*Junco hyemalis*), oak titmouse (*Baeolophus inornatus)*, wrentit, black phoebe (*Sayornis nigricans)*, western wood pewee (*Contopus sordidulus)*, Anna's hummingbird (*Calypte anna)*, Allen's hummingbird (*Selasphorus sasin)*, California quail (*Callipepla californica*), and Brewer's blackbird (*Euphagus cyanocephalus)*. Mammals observed within the Agricultural Residential Cluster Subdivision site oak woodland habitat include mule deer, coyote, California ground squirrel, desert cottontail (*Sylvilagus auduboni)*, pocket gopher, woodrat, North American raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginianus*) and deer mice. Mountain lion and bobcat also utilize on-site oak woodland for foraging and movement opportunities. Other representative animal species of oak woodlands that occur on-site include arboreal salamander (*Aneides lugubris*), southern alligator lizard, and common king snake. ~~Animal species expected to occupy the valley oak woodland habitat include those discussed for the grassland habitats mentioned above.~~ Descriptions of the oak woodland habitat types within the Agricultural Residential Cluster Subdivision site are listed below.

Blue Oak Woodland. The Blue Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Blue Oak Woodland as described by Holland **(1986)** and the Blue Oak Series described by Sawyer and Keeler-Wolf **(1995)**. This habitat type is the most widespread of California oak woodlands. It is located on well-drained soils in foothills of Coast Ranges, Transverse Ranges, Sierra Nevada, Cascades, and Klamath-Siskiyou mountain ranges. Locally, blue oak woodland occurs on hillsides and valleys of the La Panza Range in the central portion of the county. ~~Foothill pine (*Pinus sabiniana*) and valley oak are important components of the blue oak canopy and also occur on-~~

~~site. Typically, the foothill pines co-dominate with blue oaks in the drier portions of the habitat, while valley oaks are found in the more mesic areas, usually associated with drainages.~~ **Blue oak woodland on-site is dominated by blue oaks** ~~remains the dominant tree~~ and can be found ~~on-site~~ in open (savanna~~-like~~) to dense ~~monoculture~~ stands. ~~Coast live oak trees are also found interspersed within the on-site blue oak woodland.~~ **Hybrids of blue oaks and valley oaks called *Quercus jolonensis* may occur on-site but have not been genetically confirmed (Althouse and Meade, Inc., 2005). California annual grassland and native perennial grassland form the understory of the blue oak woodland. In some areas, chamise chaparral is mixed within blue oak woodland.** Blue oak woodland occurs on hills and within valleys throughout the Agricultural Residential Cluster Subdivision site and comprises ~~943.0~~ **890.0** acres or ~~25~~ **23.6**% of the ~~vegetation~~ **vegetative** cover.

Coast Live Oak Woodland. The Coast Live Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Coast Live Oak Woodland as described by Holland **(1986)** and the Coast Live Oak Series described by Sawyer and Keeler-Wolf **(1995)**. This habitat type is restricted to coastal areas from Sonoma County to Baja California. **This habitat type is dominated by coast live oak, and it intergrades with mixed oak and blue oak woodland. California annual grassland or native perennial grassland form the understory in more open, savanna-like settings.** ~~In mesic areas, including~~ **Along** drainages and north-facing slopes, coast live oak woodland forms a very dense canopy with extensive understory shading, while in drier, more exposed areas coast live oak woodland forms an open canopy often with a shrubby understory. Within the Agricultural Residential Cluster Subdivision site, coast live oak woodland occurs ~~on moderate to steep sloping hillsides and in the northern portion of the site it forms an open savanna~~ **on relatively low slopes to level terrain adjacent to the upper portions of Tostada Creek**. Coast live oak woodland comprises ~~235.5~~ **104.3** acres or ~~6.23~~ **2.8**% of the on-site ~~vegetation~~ **vegetative** cover.

Mixed Oak Woodland. **Mixed Oak Woodland most closely corresponds to Open Digger Pine Woodland or Blue Oak-Digger Pine as described by Holland (1986) and Mixed Oak Series by Sawyer and Keeler-Wolf (1995). On-site, this habitat contains all three oak species (blue, valley, and coast live) as well as foothill pine (*Pinus sabiniana*). This relatively diverse woodland habitat often has a complex understory of shrubby species, such as those described as chamise chaparral and central (Lucian) coastal scrub. It may form dense stands with a nearly closed canopy adjacent to riparian areas. Mixed oak woodland occurs in large stands throughout the Agricultural Residential Cluster Subdivision site. Mixed oak woodland comprises 190.4 acres or 5% of the on-site vegetative cover.**

Valley Oak Woodland. The Valley Oak Woodland habitat type within the Agricultural Residential Cluster Subdivision most closely corresponds to Valley Oak Woodland as described by Holland **(1986)** and the Valley Oak Series described by Sawyer and Keeler-Wolf **(1995)**. This habitat type is **usually** located on deep, well drained alluvial soils in valley bottoms and as a component of riparian communities. **Valley Oak Woodland is listed as a Sensitive Natural Community by the CDFG.** Within the Agricultural Residential Cluster Subdivision site, valley oak woodland occurs as an open canopy (savanna) on the floor of the Santa Margarita Valley adjacent to West Pozo Road **and on hilltops within several proposed lots**. ~~Remnants of~~ **Isolated** valley oak**s** ~~woodland~~ occur throughout vineyards on Moore Ridge. Many of these trees are senescent and**, based on field observations,** many **appear to have been** ~~were~~ recently

removed. Valley oak woodland comprises ~~224.7~~ **215.7** acres or ~~5.95~~ **5.7**% of the on-site ~~vegetation~~ **vegetative** cover.

Riparian. The Riparian habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to the Central Coast Cottonwood-Sycamore Riparian Forest Central Coast, Arroyo Willow Riparian Forest, and Central Coast Riparian Scrub as described by Holland **(1986)** and the Fremont Cottonwood Series, Red Willow Series, and Arroyo Willow Series as described by Sawyer and Keeler-Wolf **(1995)**. The riparian habitat is located in the middle to northern portion of the Agricultural Residential Cluster Subdivision site associated with Trout and Tostada Creeks. The majority of riparian habitat is characterized by Fremont cottonwood (Populus fremontii), red willow (Salix laevigata), arroyo willow (Salix lasiolepis), coast live oak, valley oak, and foothill pine depending on topography, aspect, and, adjacent habitats. In open areas with less ~~hydrology~~ **water**, arroyo willow and deergrass (Muhlenbergia rigens) are the dominant species. Understory in this habitat type is an herbaceous cover of forbs, broadleaved, and emergent wetland plant species. Riparian habitat comprises ~~100.3~~ **41.6** acres or ~~2.65~~ **1.1**% of the on-site ~~vegetation~~ **vegetative** cover.

Riparian communities are important for many ~~wildlife~~ **animal** species since the abundance of moisture and associated vegetation provide structure, materials, ~~and~~ food sources **and habitat** for nesting and roosting ~~animals~~. ~~Many species forage within the understory and use riparian habitat as cover and as a corridor for movement along the edges of open areas.~~ Common inhabitants of riparian woodland habitats include amphibians and reptiles such as the Pacific ~~chorus frog~~ **treefrog** and western fence lizard, and mammals such as raccoon, opossum, striped skunk (*Mephitis mephitis*), big-eared woodrat, desert cottontail, and shrews (*Sorex* spp.) Riparian woodland habitat also supports a diverse number of resident and migratory bird species including raptors. Species observed in on-site riparian habitat include house wren (*Troglodytes aedon*), ruby-crowned kinglet (*Regulus calendula*), warbling vireo (*Vireo gilvus*), Wilson's warbler (*Wilsonia pusilla*), common yellowthroat (*Geothlypis trichas*), black phoebe, goldfinches, and turkey vulture (*Cathartes aura*). Natural drainage features supporting the riparian habitat are discussed below in Section 4.3.1(b), *Natural Drainages*.

Emergent Wetland~~/Seasonal Pool~~. The Emergent Wetland~~/Seasonal Pool~~ habitat type within the Agricultural Residential Cluster Subdivision site most closely corresponds to Freshwater Palustrine Persistent Emergent Wetland as described by Cowardin **(1979)** and the Sedge Series described by Sawyer and Keeler-Wolf **(1995)**. Wetlands occur in nutrient-rich mineral soils that are saturated throughout part or all of the year. These habitats are best developed in locations with slow-moving or stagnant shallow water such as drainage corridors ~~in association with intermittent and perennial drainages, but~~ **and they** also occur ~~as~~ **in** seeps or in areas with adequate ~~hydrology that result in~~ **water sources. These areas are characterized by** a dominance of hydrophytic (water-loving) ~~vegetation~~ **plant species**. ~~It is estimated that up to 91% of the wetland acreage formerly present in California has been eliminated primarily by agricultural uses and urbanization (*National Water Summary on Wetland Resources*, U.S. Geological Survey, 1996, Water Supply Paper 2425, http://water.usgs.gov/nwsum/WSP2425/index.html).~~ Emergent wetland habitats occur within the Agricultural Residential Cluster Subdivision site in seasonally wet areas within oak woodland and grassland habitats and are dominated by herbaceous hydrophytic plant species ~~typical of seasonal and emergent wetland habitats. Emergent Wetland habitat is typically characterized as lacking substantial current, and being flooded over a long term to permanently with fresh water.~~ This habitat type

can be found on-site within seasonal pools, ephemeral drainages, and along and adjacent to creeks. **Seasonal pools are discussed below in Section 4.3.1(d), *Seasonal Pools*.** ~~Additional~~ **Agricultural** ponds that do not contain emergent wetland vegetation are discussed below under the Vineyard habitat type. Emergent wetland comprises ~~182.4~~ **191.7** acres or ~~4.83~~ **5.1**% of the on-site ~~vegetation~~ **vegetative** cover.

Emergent Wetland habitat is characterized by erect, rooted herbaceous hydrophytes. These areas are either perennially flooded, or are flooded frequently enough so that the roots of the vegetation prosper in an anaerobic (i.e., oxygen-lacking) environment. Vegetation includes Mexican rush (*Juncus mexicanus*), common spikerush (*Eleocharis macrostachya*), and curly dock *(Rumex crispus)*. Other species present include toad rush (*Juncus~~.~~ bufonius*), rabbitfoot grass (*Polypogon monspeliensis*), and hyssop loosestrife (*Lythrum hyssopifolium*). Due to the seasonal inundation with water and well-developed vegetative stratum, the on-site emergent wetland habitat provides habitat to several aquatic wildlife species including aquatic invertebrates such as seed shrimp (Class Ostracoda), freshwater snails, (Class Gastropoda) and water boatmen (Family Corixidae), amphibians such as the Pacific chorus frog, bullfrog, and California toad, and reptiles such as the southwestern pond turtle. Aquatic birds such as the mallard duck (*Ana platyrhynchos*) and American coot (*Fulica A~~a~~mericana)* were also observed in association with open water habitat in these areas. Emergent vegetation associated with this habitat type provides breeding habitat for the red-winged blackbird (*Agelaius phoeniceus*) and common snipe (*Gallinago gallinago*). ~~Seasonal pools are discussed below in Section 4.3.1(d), *Seasonal Pools*.~~

Seasonal Pools. **Seasonal pools are wetland habitats that contain standing water on an ephemeral basis. In some cases, seasonal pools contain emergent wetland vegetation or may be classified as vernal pools. However, seasonal pools with shorter hydroperiods may contain few emergent wetland plant species. Vegetation in these pools may be sparse and consist mainly of upland plant species. Puddles that form in road ruts or other anthropogenic areas can be considered seasonal pools. These areas are important biologically because they can contain threatened and endangered species, such as vernal pool fairy shrimp, and provide habitat for a variety of aquatic invertebrates. Pacific treefrogs, California toads, and western spadefoot can breed in seasonal pools. Bird and mammal species can use these areas as a water source. Seasonal pools comprise 4.8 acres or less than 1% of the on-site cover.**

Ruderal. Ruderal habitats are disturbed areas that are typically sparsely vegetated by invasive non-native plants. This habitat type is not identified by Holland (1986) or Sawyer and Keeler-Wolf (1995). On-site, this habitat type is restricted to a cattle feeding area that is mostly devoid of vegetation due to trampling, grazing and vehicular impacts. It comprises 0.5 acres or less than 1% of the area within the Agricultural Residential Cluster Subdivision.

Agriculture (Vineyard**).** ~~Vineyard~~ **Agriculture** is a human-created habitat**, and vineyards are the type of agriculture** that ~~has~~ **have** been planted over the majority of the Agricultural Residential Cluster Subdivision site. ~~The vineyard habitat~~ **Agriculture** is not described by Holland **(1986)** or Sawyer and Keeler-Wolf **(1995)** as it is not a native plant community, though it is considered a wildlife habitat under the California Wildlife Habitat Relationships (CDFG, California Interagency Wildlife Task Group, CHWR ver. 8.1). The on-site vineyard consists of intensively maintained wine-grape vines that are actively managed, regularly irrigated, and has few native plant species. Vineyard maintenance eliminates the

ability for many native plants to survive ~~in the area and provides suitable areas for plants highly~~**, and the plant species present in these areas are** adapted to frequent disturbance~~,~~ **and** primarily consist~~ing~~ of ruderal species. ~~Such species~~ **Common Ruderal species occurring in vineyard habitats** include bromes, wild radish (*Raphanus sativus*), and mustard (*Brassica* sp.). In addition, two ~~concrete~~ **clay**-lined irrigation ponds are located in the southern portion of the site and are considered part of this habitat type. Vineyard comprises ~~870.6~~ **853.6** acres or ~~23.0~~ **22.6**% of the on-site ~~vegetation~~ **vegetative** cover.

Vineyards often support a low to moderate diversity of small mammal and bird species adapted to frequent disturbance and open coverage. Species commonly observed **in** vineyards include mourning doves (*Zenaida macroura*), European starlings (*Sturnus vulgaris*), northern mockingbirds (*Mimus polyglottos*), desert cottontails, and California ground squirrels. In areas within the vineyard where ~~remnant~~ **isolated** valley oaks remain or where vineyards are adjacent to oak woodlands, avian species diversity was found to be greater than in areas without trees (Jason Dart, pers. comm.). It should be noted that vineyard habitats are typically managed to minimize crop depredation by such species as starlings, blackbirds, ground squirrels, gophers, and any other opportunistic wildlife species.

c. Natural Drainages. The following creek descriptions include the location of the creeks, associated riparian and wetland vegetation, creek characteristics, and in-stream pool measurements.

Trout Creek. Trout Creek is located within a flat area along the eastern portion of the Agricultural Residential Cluster Subdivision site between West Pozo Road and the hills to the west. Trout Creek is a perennial creek that originates south of the Agricultural Residential Cluster Subdivision site in the Santa Lucian Mountains near Cuesta Ridge. From its origins it heads northeast/north through the site and eventually converges with **the** Salinas River east of the Santa Margarita Ranch property. The Agricultural Residential Cluster Subdivision site segment of Trout Creek is approximately 1.50 miles long and contains mature riparian forest habitat with riparian scrub and emergent perennial wetland habitats lining and submerged within its diverse channel. Average bankfull of Trout Creek is approximately 50 feet and the channel is often 4.0 feet wide. Substrate found in riffles is small sized gravel to cobbles, while coarse sand to medium gravel is common in most runs. Twelve in-stream pools have been identified within the on-site creek segment that occurs within the development area. On average, these pools are 5-6 feet wide, 5-7 feet long, and 2-4 feet deep. They typically consist of coarse sand, but in many cases contain gravel and cobble substrate.

Tostada Creek. Trout Creek is located along an unnamed ranch road between two hills in the mid-eastern portion of the Agricultural Residential Cluster Subdivision site. Tostada Creek is a seasonal creek that originates within the Agricultural Residential Cluster Subdivision site near Moore Ridge and extends east until it converges with Trout Creek at the one mile bridge of Highway 58. Tostada Creek receives runoff from ephemeral drainages from Moore Ridge and in the hills that surround the lower portion of the creek. On-site, Tostada Creek is approximately 1.25 miles long and contains two very different segments. To the west, the upper 0.75 mile long segment supports sparse riparian scrub and deer grass habitats over an open channel and to the east, the lower 0.50 mile long segment supports riparian forest habitat consisting of red willow, foothill pine, and coast live oak. Average bankfull of Tostada Creek is approximately 40 feet and the channel is often 3.0-4.0 feet wide. Substrate found in riffles is

small to large sized gravel, while coarse sand to medium gravel is common in most runs. Ten in-stream pools have been identified within the on-site creek segment. On average, these pools are 4.0-5.0 feet wide, 4.0-6.0 feet long and 1.0-3.0 foot deep. They typically have fine to coarse sand, but in some cases contain small to medium sized gravel substrate.

d. Seasonal Pools. Seven seasonal pools are located within the Agricultural Residential Cluster Subdivision. These pools were named Seasonal Pool 1 (SP 1), SP 2, SP 3, SP 4, SP 5, SP 6, and SP 7 for the purposes of this study. Seasonal pool numbers in parentheses (i.e. SMR 4) are from the Inventory of the entire Santa Margarita Ranch. Only seasonal pools located within or directly adjacent to the Agricultural Residential Cluster Subdivision site and that have potential to be impacted by development were included in this investigation and are discussed herein. All seasonal pools have a moderately impervious clay~~, loamy clay,~~ or sandy loam soil substrate (USDA 1994) that supports seasonal pooling (Althouse and Meade, 2003, J. Davis, personal observation). The following are seasonal pool descriptions and include the location of the pool, pool area and depth, surrounding habitat description, and substrate type.

SP 1 (SMR 17) is in a natural pool located just south of the community of Santa Margarita in a flat area at the end of a low gradient ephemeral drainage that supports emergent wetland vegetation. A human-created earthen berm constructed along the southern edge of the community has increased the maximum depth and size of the pool. The ephemeral drainage has a very swallow sandy loam to clay loam channel, which expands as it approaches the topographic low area supporting SP 1 (USDA 1994). The dominant wetland species within the ephemeral drainage and in the shallow areas of SP 1 include Mexican rush, common spikerush, and curly dock. SP 1 covers a maximum area of approximately 6.31 acres and a maximum depth of approximately 35 inches. The southernmost portion of SP 1 is within the Agricultural Residential Cluster Subdivision site.

SP 2 (SMR 12) is a human-created pool located along an unnamed ranch road toward the top of a hill within the Agricultural Residential Cluster Subdivision site. SP 2 was formed by the placement of an earthen dam within a low to moderate gradient ephemeral drainage. The pool is surrounded by blue oak woodland habitat. A well used ranch road lies directly west of the pool. SP 2 covers a maximum area of approximately 0.12 acre and a maximum depth of approximately 70 inches.

SP 3 (SMR 23) is a shallow pool located within a large wetland area between the blue oak woodland covered hills to the north and vineyards to the east and west. The dominant wetland species within SP 3 are Mexican rush and common spikerush. SP 3 covers a maximum area of approximately 0.04 acre and a maximum depth of approximately 12 inches. SP 3 is located approximately 0.50 mile west of Trout Creek and 0.75 mile east of Yerba Buena Creek.

SP 4 (SMR 4) is located in the southern portion of the Agricultural Residential Cluster Subdivision site within an open wetland area surrounded by vineyards. The dominant wetland species surrounding SP 4 include red willow, Mexican rush, and common spikerush. SP 4 covers a maximum area of approximately 0.30 acres and a maximum depth of approximately 60 inches. SP 4 is located less than 1.00 mile from Trout Creek.

SP 5 (SMR 5) is located in the southern portion of the Agricultural Residential Cluster Subdivision site within an open wetland area surrounded by vineyards. The dominant wetland

species surrounding SP 5 include Mexican rush and common spikerush. SP 5 covers a maximum area of approximately 1.93 acres and a maximum depth of approximately 16 inches. SP 5 is located approximately 1.25 miles southeast of Trout Creek. This pool was coined the "frog pond" by Althouse and Meade (2003) due to the abundance of Pacific chorus frogs and California (western) toads.

SP 6 (SMR 35) is located approximately 150 feet west of Highway 58 near a short branch of Trout Creek. SP 6 is situated within valley oak woodland and California annual grassland habitat. A very low gradient drainage and sheet flow from a small watershed supply water seasonally to this pool. The dominant emergent wetland vegetation surrounding the perimeter of SP 6 includes Mexican rush and common spikerush. SP 6 covers a maximum area of approximately 0.68 acre **and** a maximum depth of approximately 40 inches. SP 6 is located less than 0.10 mile from Trout Creek.

SP 7 (SMR 19) is located in a wetland below Moore Ridge and just west of the eastern Agricultural Residential Cluster Subdivision site boundary. The dominant emergent wetland vegetation surrounding the perimeter of SP 7 includes Mexican rush and common spikerush. SP 7 covers a maximum area of approximately 0.59 acre and a maximum depth of approximately 20 inches. SP 7 is located less than 0.10 mile from Yerba Buena Creek.

e. Special-Status Species. For the purpose of this evaluation, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the Federal Endangered Species Act (FESA); those listed or proposed for listing as rare, fully protected, threatened, or endangered by the CDFG under the California Endangered Species Act (CESA); animals designated by the CDFG as "California Special Concern (CSC) species" that occur on the Special Animal list (CDFG 2006); plants occurring on the CDFG's *Special Vascular Plants, Bryophytes, and Lichens List* (CDFG 2006); and plants occurring on Lists 1 and 2 of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001) and CNPS Inventory On-line (2006). Additionally, a number of special-status wildlife species are considered to be of "local concern." Animals in this category are of interest because they have limited distributions, are experiencing local or regional population declines, are vulnerable to current or future threats to their preferred habitat, and/or are of unusual scientific, recreational, or educational value.

Rincon Consultants biologists developed a target list of special-status plant and wildlife species that could potentially occur within the Agricultural Residential Subdivision Cluster site based on review of the California Natural Diversity Database (CNDDB), previous studies in the vicinity of the site (Althouse and Meade, 2003; McClelland Engineers, 1987; and Olberding Environmental, 2005), personal communication with Althouse and Meade, Inc. biologist LynneDee Althouse and Jason Dart, USFWS, CDFG, and other, including Rincon Consultants biologists' knowledge of the area. Field reconnaissance to identify habitat types and an evaluation of the on-site soils helped refine the target list of species and focus the assessment of the actual occurrence of special-status species on the project site.

USFWS protocol wet-season surveys for the federally threatened vernal pool fairy shrimp and California red-legged frog (CRLF) were conducted within the seven seasonal pools. USFWS protocol CRLF surveys were also conducted within Tostada Creek and the on-site portion of Trout Creeks between December 11, 2005 and May 26, 2006. Focused rare plant surveys were

conducted within the residential development areas of the Agricultural Residential Cluster Subdivision by Rincon Consultants botanists during spring and summer of 2006. Table 4.3-3 lists special-status plant species observed within the Agricultural Residential Cluster Subdivision site, as well as the Ranch property (Future Development Program area) and Table 4.3-4 lists those special-status wildlife species observed within the Agricultural Residential Cluster Subdivision site and Ranch property (Future Development Program area). Special-status plant and wildlife species that were not identified on the Agricultural Residential Cluster Subdivision site during general and focused surveys performed by Rincon Consultants and the inventory performed by Althouse and Meade were only included if they had potential to occur on the Ranch property based on the presence of suitable habitat. Appendix L lists special-status plant and animal species included on the Rincon target list that are not expected to occur within the Agricultural Residential Cluster Subdivision site based on the results of current and past biological investigations.

Special-Status Plants~~ and Plant Communities of Special Concern~~. The CNDDB contains records of 41 special-status plant species that are known from relatively localized occurrences near the Agricultural Residential Cluster Subdivision site. Extensive survey time was devoted to determine presence or absence of special-status plant species within the Agricultural Residential Cluster Subdivision site. Plants not observed during inventory efforts and/or focused rare plant surveys are not expected to occur and are not listed in Table 4.3-3 unless occurrences are within the Ranch property (Future Development Program area).

Table 4.3-3. Special-Status Plant Species Occurring Within the Project Site

Species	Status[1] Fed/CDFG/CNPS	Habitat Requirements and Blooming Period[2]	Suitability/Observations	
			Agricultural Residential Cluster Subdivision Site	Future Development Program Area
Santa Lucia manzanita *Arctostaphylos luciana*	--/--/List 1B	Chaparral; cismontane woodland; on shale outcrops, on slopes; 1,150 to 2,750blooms February to March.	Marginal habitat on-site; Not observed during focused rare plant surveys or Inventory efforts within the Residential Development. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site; observed during general survey and Inventory efforts in the southwest portion of the site within chaparral habitat.
Catalina mariposa lily *Calochortus catalinae*	--/--/List 4	Valley and foothill grasslands; cismontane woodland; chaparral; sandy soils, often granite, sometime serpentine; 1,300 to 3,600 feet; blooms April to May.	Suitable habitat on-site; Not observed during focused rare plant surveys or Inventory efforts within the Residential Development. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site; Inventory efforts identified an occurrence in the western portion of the site near Yerba Buena Creek.
San Luis Obispo mariposa lily *Calochortus simulans*	--/--/List 1B	Valley and foothill grasslands; cismontane woodland; chaparral; sandy soils, often granite, sometime serpentine; 1,300 to 3,600 feet; blooms April to May.	Suitable habitat on-site; observed during focused rare plant surveys and Inventory efforts within the proposed disturbance areas.	Suitable habitat on-site.
San Luis Obispo County morning glory *Calystegia subacaulis* ssp *episcopalis*	--/--/List 1B	Chaparral, cismontane woodland, grasslands; 200 to 1640 feet; blooms April to May.	Suitable habitat on-site; Not observed during focused rare plant surveys or Inventory efforts.	Suitable habitat on-site; Inventory efforts identified an occurrence in the western portion of the area within Miller Flats.
Obispo owl's clover *Castilleja densiflora* ssp. *obispoensis*	--/--/List 1B	Valley and foothill grasslands; 30 to 700 feet; blooms in April.	Suitable habitat on-site; Not observed during focused rare plant surveys or Inventory efforts. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site; Inventory efforts identified an occurrence in the western portion of the area within Miller Flats.
Straight-awned spineflower *Chorizanthe rectispina*	--/--/List 1B	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral or on shale in coastal scrub; blooms from May to June.	Suitable habitat on-site; observed during Inventory efforts within the vineyards within the southeastern portion of the site. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site.
San Luis Obispo County lupine *Lupinus ludovicianus*	--/--/List 1B	Chaparral, cismontane woodland; open areas in sandy soil; Santa Margarita Formation; 165 to 1,725 feet; blooms April to June.	Suitable habitat on-site; Observed during focused rare plant surveys and Inventory efforts adjacent to vineyards within blue oak woodland. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site; Potential to occur on-site on sandy soil within oak woodland habitats.

Table 4.3-3. Special-Status Plant Species Occurring Within the Project Site

Species	Status[1] Fed/CDFG/CNPS	Habitat Requirements and Blooming Period[2]	Suitability/Observations	
			Agricultural Residential Cluster Subdivision Site	Future Development Program Area
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/List 1B	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral or on shale in coastal scrub; blooms from May to June.	Suitable habitat on-site; Observed during Inventory efforts within grassland habitat along West Pozo Road near Five Mile Bridge. Unlikely to occur within the proposed disturbance areas.	Suitable habitat on-site.

CDFG
S1 = Less than 6 viable element occurrences or less than 1,000 individuals or less than 2,000 acres
S2 = 6-20 viable element occurrences or less than 1,000- 3,000 individuals or less than 2,000-10,000 acres
S3 = 21-80 viable element occurrences or less than 3,000- 10,000 individuals or less than 10,000-50,000 acres

CNPS
List 1B = Plants Rare, Threatened, or Endangered in California or elsewhere
List 4 = A "Watch List" for Plants of Limited Distribution
[1] CNPS List 1B=rare or endangered in California and elsewhere; -- =no status.
[2] CNDDB and CNPS *Inventory of Rare and Endangered Plants of California* (2001) and On-line Inventory (2006).

Table 4.3-4. Special Status Wildlife Species Potentially Occurring on the Project Site

Species	Status Fed/CA	Habitat Requirements	Suitability/Observations	
			Agricultural Residential Cluster Subdivision (ARCS)	Future Development Program (FDP)
INVERTEBRATES				
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--	Vernal pools in grassland, coastal scrub, chaparral, alkaline flats, terraces, and other habitats of the central valley, and central and southern coastal and adjacent inland areas. Pools are small and formed by the collection of freshwater in sandstone, hard-pan or clay-pan layer depression, grassy swales, or earth slumps.	Suitable habitat present on-site; Not observed during USFWS protocol wet-season surveys within Seasonal Pools 1-7. Dry-season surveys are required to complete the protocol survey and conclusively determine presence or absence of this species.	Suitable habitat present on-site; USFWS protocol surveys have not been performed. California Linderiella was observed within two seasonal pools along the quarry access road during Inventory efforts. Potential to occur on the property within seasonal pools
FISH				
Steelhead trout – South Central Coast ESU *Onchorhynchus mykiss irideus*	FT/CSC	Fast flowing, highly oxygenated, clear cool streams.	Suitable habitat present on-site. Observed on-site within Trout Creek during inventory efforts and snorkel surveys. **Could potentially occur in Tostada Creek.**	Suitable habitat present on-site. Observed within Trout Creek and Santa Margarita Creek ~~during Inventory efforts~~. ~~Also expected to occur in Taco and Rinconada Creeks.~~ **Rainbow trout observed in Rinconada Creek may produce juveniles that go to the ocean, but they cannot return to Rinconada Creek due to Pierce Dam. A similar condition may exist in Taco Creek.**
REPTILES AND AMPHIBIANS				
Southwestern pond turtle *Actinemys marmorata pallida*	--/CSC	Permanent or nearly permanent water bodies in many habitats Uses upland habitat for nesting.	Suitable habitat present on-site. Observed on-site within SP 2. Suitable habitat also occurs within SP 4, SP6, and Trout Creek.	Suitable habitat present on-site. Observed on-site within SP 7 and Yerba Buena Creek. Also expected to occur within all long-term inundated aquatic areas.
California tiger salamander (Central Population; Central Coast Region) *Ambystoma californiense*	FE/CSC	Breeding habitat consists of large vernal pools, stock ponds, and seasonal and perennial ponds and associated grassland savanna habitat. Upland habitat also includes active California ground squirrel and Botta's pocket gopher burrows.	Suitable habitat present on-site; Not observed during aquatic survey efforts: wet-season VPFS surveys, CRLF surveys, or Inventory efforts and focused vertebrate sampling. Unlikely to occur on-site **due to regional distribution**.	Suitable habitat present on-site; Not observed during aquatic survey efforts or focused vertebrate sampling. Unlikely to occur on the property **due to regional distribution**.
Silvery legless lizard *Anniella pulchra pulchra*	--/CSC	Prefers open vegetation in chaparral and scrub habitats with sandy loose soils or wooded areas with loose soils and leaf debris.	Suitable habitat present on-site. Observed on-site within blue oak woodland during Inventory efforts. Also expected to occur on sandy soils within chaparral, coastal scrub, and oak woodlands throughout the site.	Suitable habitat present on-site; Not observed during Inventory efforts. Suitable habitat on sandy soils within chaparral, coastal scrub, and oak woodlands. Expected to occur on the property.

Table 4.3-4. Special Status Wildlife Species Potentially Occurring on the Project Site

Species	Status Fed/CA	Habitat Requirements	Suitability/Observations	
			Agricultural Residential Cluster Subdivision (ARCS)	Future Development Program (FDP)
Coast horned lizard *Phrynosoma coronatum (frontale* population)	--/CSC	Wide variety of habitats, especially in coastal scrub communities and along washes with scattered shrubs for cover.	Suitable habitat within chaparral, oak woodlands, and grassland habitats. Not observed during Inventory efforts or general surveys. Focused surveys were not performed. Expected to occur on sandy soils within chaparral, scrub, and oak woodlands throughout the site.	Suitable habitat present on-site. Observed during Inventory efforts on sandy soils within coastal scrub habitat east of West Pozo Road. Expected to occur on sandy soils within chaparral, coastal scrub, and oak woodlands throughout the property.
California red-legged frog *Rana aurora draytonii*	FT/CSC	Permanent sources of deep water with emergent or riparian vegetation. Can use a variety of habitats.	Observed on-site during USFWS protocol surveys within Trout and east Tostada Creeks; however, CRLF was not observed in on-site seasonal pools.	Suitable habitat present on-site; Observed during Inventory efforts within Trout, Taco, Yerba Buena Creek**s**, ~~and Santa Margarita Creeks~~ and SMR Pond ~~24~~a and 2b **(within Taco Creek)**. **Suitable habitat exists in Santa Margarita Creek.**
Western spadefoot ~~toad~~ *Spea hammondii*	--/CSC	Grasslands, valley and foothill woodlands near ephemeral/vernal pools **or seasonal agricultural ponds that are used** for breeding.	Suitable habitat present on-site; Not observed during aquatic survey efforts: wet-season VPFS survey, CRLF surveys, ~~or~~ Inventory ~~and~~ **or** focused vertebrate sampling; **however, because this species is difficult to detect , they are common in the area, and suitable habitat exists, it is possible that they could occur on-site.** ~~Unlikely to occur within the site.~~	Suitable habitat present on-site; Observed during Inventory and general survey efforts within SMR Pond 33. Expected to occur in seasonal pools on the property.
Coast range newt *Taricha torosa torosa*	--/CSC	Valley-foothill woodlands, coastal scrub, chaparral, and annual grassland habitats. ~~near slow moving or stagnant water~~ **Breeding occurs in clear streams with rocks and boulders in central and southern California, and they breed in ponds and reservoirs in northern parts of their range.**	Suitable habitat **is not** present on-site; Not observed during CRLF protocol surveys or Inventory efforts. Unlikely to occur on-site.	Suitable habitat present on-site. Observed on-site within the upper segment of Yerba Buena **and Trout** Creek**s** during Inventory efforts.
BIRDS				
Cooper's hawk *Accipiter cooperii*	--/CSC	Woodlands for nesting. Open areas and human structures for foraging.	Suitable nesting and foraging habitat present within oak woodlands, grasslands, and buildings. Observed foraging on-site during Inventory efforts. Expected to nest on-site.	Suitable nesting and foraging habitat present within oak woodlands, grasslands, and buildings. Expected to nest and forage on the property.
Golden eagle *Aquila chrysuetos*	--/CSC, FP	Cliffs **trees,** and rocky ledges for nesting. Grasslands and open country for foraging.	**Good** ~~Marginal~~ nesting habitat on-site within **mixed** oak woodlands. Observed foraging during Inventory	**Good** ~~Marginal~~ nesting habitat on-site within **mixed** oak woodlands. Suitable foraging habitat present

Table 4.3-4. Special Status Wildlife Species Potentially Occurring on the Project Site

Species	Status Fed/CA	Habitat Requirements	Suitability/Observations	
			Agricultural Residential Cluster Subdivision (ARCS)	**Future Development Program (FDP)**
			efforts and general surveys within open oak woodland, grasslands, and agricultural areas. Expected to nest on-site.	within oak woodlands and grasslands. **Observed nesting on a high power line tower on the property and e**~~E~~xpected to ~~nest and~~ forage on the property.
Ferruginous hawk *Buteo regalis*	--/CSC	Cliffs, banks, shrublands, and sparse woodlands for nesting. Open grassland, sagebrush, agricultural, and desert scrub habitats for foraging.	Suitable foraging habitat occurs within on-site chaparral, agricultural fields, and grasslands. Does not nest in the region. Observed foraging on-site during Inventory efforts.	Observed foraging on the property during Inventory efforts. Does not nest in the region. Suitable foraging habitat within chaparral, agricultural fields and grasslands.
Yellow warbler *Dendroica petechia brewsteri*	--/CSC	Riparian habitat, prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging.	Suitable foraging and nesting habitat within riparian woodlands. Vocalizations heard during Inventory efforts at the convergence of Trout and Tostada Creeks. Expected to occur on-site.	Suitable nesting and foraging habitat within riparian woodlands. Expected to occur on the property.
White-tailed kite *Elanus leucurus*	--/FP	Woodlands for nesting and open country, grasslands and marshes for foraging.	Observed nesting behavior on-site within oak woodland during Inventory efforts. Nest site was not located. Observed foraging above Moore Ridge and Miller Flats during general survey efforts.	Suitable nesting habitat within oak woodlands. Observed foraging within grasslands during Inventory efforts and general surveys.
California homed lark *Eremophila alpestris actia*	--/CSC	Sparse coastal sage scrub and grasslands for nesting and foraging.	Observed foraging on-site during Inventory efforts. Suitable nesting and foraging on-site habitat within grasslands and agricultural fields.	Suitable nesting and foraging in habitat on the property within grasslands and agricultural fields. Expected to occur on the property.
Merlin ***Falco columbarius***	**--/CSC**	**Breeds in Alaska and Canada in open country such as open coniferous woodland and prairie, and occasionally in adjacent suburbs. Winters in California in open woodland, grassland, open cultivated fields, marshes, estuaries, and seacoasts.**	**Suitable habitat exists on-site for wintering individuals. Observed during Inventory efforts on the Ranch but the location of the observation is not known.**	**Suitable habitat exists on-site for wintering individuals. Observed during Inventory efforts on the Ranch but the location of the observation is not known.**
~~Merlin~~**Prairie falcon** *Falco mexicanus*	--/CSC	Cliffs overlooking large areas for nesting. Open habitats and grasslands for foraging. **Present in California year-round.**	Suitable nesting habitat within off-site cliff ledges and suitable foraging habitat exists within grasslands and chaparral. Observed foraging on-site during Inventory efforts. No nesting individuals observed. Expected to occur as a transient **and uses the site for foraging**.	Suitable foraging habitat within grasslands and chaparral. Expected to occur as a transient **and likely uses the site for foraging**.
Bald eagle *Haliaeetus leucocphalus*	FT/SE, FP	Large mature trees for roosting and nesting and large bodies of water for foraging. **Nests**	Observed foraging on-site during Inventory efforts **and** within nearby	~~Suitable nesting habitat on-site within oak woodlands.~~ Suitable foraging

Table 4.3-4. Special Status Wildlife Species Potentially Occurring on the Project Site

Species	Status Fed/CA	Habitat Requirements	Suitability/Observations	
			Agricultural Residential Cluster Subdivision (ARCS)	Future Development Program (FDP)
		near large bodies of water.	Santa Margarita Lake. Not observed nesting on-site during Inventory efforts or general surveys. ~~Suitable nesting habitat on-site within oak woodlands. Suitable foraging habitat~~	habitat **on-site and** within nearby Santa Margarita Lake. Expected to occur on the property.
Yellow breasted chat *Icteria virens*	--/CSC	Thickly vegetated riparian habitats near watercourses for nesting and foraging.	Suitable foraging and nesting habitat within riparian woodlands and riparian scrub. ~~Observed~~ **Records of** nesting on-site **exist** ~~during Inventory efforts~~.	Suitable foraging and nesting habitat within riparian woodlands and riparian scrub. Expected to occur on the property.
Loggerhead shrike *Lanius ludovicianus*	--/CSC	Coastal sage scrub, riparian scrub, riparian woodland for nesting. Grasslands and other semi-open habitats for foraging.	Suitable nesting habitat within riparian areas, chaparral and woodlands. Suitable foraging within grasslands and chaparral. Observed nesting on-site during Inventory efforts within riparian woodland of Taco Creek ~~is~~ **in** the ~~north~~ **south**eastern portion of the site during Inventory efforts.	Suitable nesting habitat within riparian areas, chaparral and woodlands. Suitable foraging within grasslands and chaparral. Expected to occur on the property.
Purple martin *Progne subis*	--/CSC	Woodlands including sycamores, low elevation coniferous forests, mixed and oak woodlands for nesting and foraging. Primarily nests in old woodpecker cavities.	Suitable foraging and nesting habitats within riparian and oak woodlands, and grasslands fields. Observed nesting on-site during Inventory efforts within the riparian corridor of Trout Creek.	Suitable nesting and foraging habitat present. Suitable foraging and nesting habitats within riparian and oak woodlands, and grasslands fields. Expected to occur on the property.
MAMMALS				
American badger *Taxidea taxus*	--/CSC	Open grassland and desert area with friable soils and a suitable rodent prey base.	Suitable habitat on-site within grassland and open oak woodland habitats. Observed on-site within oak woodland during Inventory efforts.	Suitable habitat within grassland and open oak woodland habitats. Observed within oak woodland during Inventory efforts.
Pallid bat *Antrozous pallidus*	--/CSC	Grasslands, shrublands, and woodlands, but most common in open, dry habitats with rocky ledges for roosting.	Suitable roosting sites within oak woodland habitats, especially old valley oak trees, and suitable foraging habitat within most on-site habitats. Not observed on-site during Inventory efforts or general surveys. Expected to occur.	Suitable habitat present. Roosting site observed on the Santa Margarita creek bank, under Highway 101 bridge during Inventory efforts. Suitable foraging habitat within chaparral and grasslands.
Townsend's big-eared bat *Corynorhinus townsendii*	--/CSC	All habitat types except sub-alpine areas. Requires caves, tunnels, or other areas suitable for roosting.	Unlikely roosting habitat on-site. Suitable foraging habitat exists within all plant communities. Not observed within the development during Inventory efforts or general surveys. Expected to forage on-site.	Observed roosting within the Santa Margarita Ranch headquarters barn during Inventory efforts. Suitable foraging habitat exists within all plant communities.

[1] *Federal: FE=Federally Endangered; FT=Federally Threatened;*
State (CA)/CDFG: SE=State Endangered; FP=Fully Protected; CSC=California Special Concern.

The Inventory conducted by Althouse and Meade, Inc. (2003) also covered Future Development Program areas.

The following species accounts briefly present relevant ecological and range information and legal status for all the special-status plant species observed within the Agricultural Residential Cluster Subdivision site and Future Development Program area.

San Luis Obispo mariposa lily (*Calochortus simulans*), a CNPS List 1B species, is a perennial bulbiferous herb in the lily family (Liliaceae), and typically blooms from April to May. This plant is endemic to San Luis Obispo County and is known from localized occurrences in the San Luis Obispo and Arroyo Grande region. This plant is found in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill woodland habitats on sandy, often granitic soils. It is has also been observed in areas dominated by serpentinite. This species is known from approximately sixteen occurrences throughout San Luis Obispo County. The San Luis Obispo mariposa lily was observed in grassy openings in blue oak woodland and within valley needlegrass grassland within the east/southeast portion of the Agricultural Residential Cluster Subdivision site. Approximately 200 plants were observed.

Straight-awned spineflower, a CNPS List 1B species, is a small prostrate herbaceous plant in the buckwheat family (Polygonaceae) that blooms from June through July. This species is known to occur in chaparral, cismontane woodlands, and coastal scrub habitat types in Monterey, San Luis Obispo, and Santa Barbara counties. CNPS reports that this species is known from approximately twenty-three occurrences, primarily within San Luis Obispo County (19 occurrences). Straight-awned spineflower individuals were observed within the vineyards in the southeastern portion of the Agricultural Residential Cluster Subdivision site. Approximately 1,000 plants were observed in this occurrence (J. Dart, pers. comm. 2006). This species was not observed within proposed Agricultural Residential Cluster Subdivision disturbance areas.

San Luis Obispo lupine (*Lupinus ludovicianus*) a CNPS List 1B species, is a perennial herb in the legume family (Fabaceae), and typically blooms from April to July. This plant is endemic to San Luis Obispo County and is known from sixteen occurrences in the Santa Lucia Mountains to the east of the Cities of San Luis Obispo and Arroyo Grande. This plant is found in chaparral and cismontane woodland on the Santa Margarita Formation within sandstone or sandy soils. It was observed in grassy openings in blue oak woodland within the east/southeast portion of the Agricultural Residential Cluster Subdivision site. Approximately 20 plants were observed in this occurrence. This species was not observed within proposed Agricultural Residential Cluster Subdivision disturbance areas.

Caper-fruited tropidocarpum (*Tropidocarpum capparideum*) a CNPS List 1B species, is an annual herb in the mustard family (Brassicaceae), and typically blooms from March to April. This species is known to occur in valley and foothill grassland habitat on alkaline clay soils from 0 to 1,400 feet elevation in Monterey, San Luis Obispo, and Santa Barbara counties. CNDDB reports that this species is known from approximately nineteen occurrences, with half of them likely to have been extirpated. Caper-fruited tropidocarpum was observed in a California annual grassland habitat in the east/southeast portion of the Agricultural Residential Cluster Subdivision site near West Pozo Road and the five-mile bridge. Approximately 100 plants were

observed in this occurrence. This species was not observed within proposed Agricultural Residential Cluster Subdivision disturbance areas.

Other uncommon plant species observed on-site are the Catalina mariposa lily (*Calochortus catalinae*), Paso Robles navarretia (*Navarretia jaredii*), and Michael's rein orchid (*Piperia michaelii*). These three plants are on the CNPS List 4: Plants of Limited Distribution, a "watch list" for uncommon plants whose vulnerability or susceptibility appear relatively low at this time (CNPS 2001), but may become rare in the future as their habitat is impacted and lost.

Special-Status Wildlife. The CNDDB contains records of 29 special-status wildlife species that are known from relatively localized occurrences within the vicinity of the Agricultural Residential Cluster Subdivision site. The majority of these species have highly specialized habitat requirements that do not occur on the project site, and can be dismissed from occurring on-site. Table 4.3-4 presents a summary of habitat requirements, on-site suitability, and observations for the special-status wildlife species that are known to occur within the site.

The following are detailed descriptions of special-status wildlife species known to occur within or directly adjacent to the Agricultural Residential Cluster Subdivision site.

Special-Status Fish Species

Steelhead, south/central California coast ESU, (*Oncorhynchus mykiss irideus*; ~~F~~**f**ederally Endangered and CDFG California Special Concern wildlife species). The **south/central California coast steelhead (**steelhead**)** ~~trout~~ is an anadromous (ocean-run) form of ~~the~~ **coast** rainbow trout **(also *Oncorhynchus mykiss irideus*)**. Steelhead ~~trout~~ have extremely well developed homing abilities. They usually will spawn in the same stream and area where they lived as fry (young fish). However, steelhead are opportunistic spawners and will spawn in other areas of a stream if their particular tributary or reach is unreachable due to new dams, other barriers, or pollution. When in fresh water, the steelhead trout prefer a fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools. This species is found in appropriate streams throughout California. **Steelhead were observed in Trout Creek during Inventory efforts.** Steelhead potentially spawn within the Agricultural Residential Cluster Subdivision site in-stream pooled portions of Trout Creek and use the remainder of Trout Creek habitat for migration to and from the Pacific Ocean via the Salinas River. **Steelhead could potentially occur in Tostada Creek. Coast rainbow trout have been observed in Rinconada Creek, and they likely produce juveniles that migrate to the ocean, but they are unable to return to spawning sites due to Pierce Dam.**

Special-Status Reptile~~s~~ and Amphibian Species

Southwestern pond turtle (*Actinemys [Clemm~~i~~**y**s] marmorata pallida*; CDFG California Special Concern wildlife species). The southwestern pond turtle is a highly aquatic species that requires permanent slow moving or stagnant water with basking sites, such as partially submerged logs, vegetation mats, or open mud banks. It lays its eggs in the banks of creeks and can nest up to one-half mile in adjacent uplands if suitable habitat exists. Hatchlings then migrate to the water where they require areas of shallow water with dense vegetation. This species inhabit**s** streams and ponds throughout the western half of the state. Southwestern pond turtle occurs within or adjacent to the Agricultural Residential Cluster Subdivision site in

SP 2, SP 7, and Yerba Buena Creek. This species also has potential to occur within pooled portions of Trout Creek, SP 1, SP 4, and SP6.

Silvery legless lizard (*Anniella pulchra pulchra*; CDFG California Special Concern wildlife species). The silvery legless lizard occurs in areas of loose soil, such as banks of streams, sand dunes, sandy canyon bottoms, and ravines. Soil with high moisture content and scattered vegetation is preferred by the species because it seeks cover by burying itself under leaf litter or loose soil. This species forages for insects or insect larvae at the base of a shrub or near the surface of the soil under leaf litter. The silvery legless lizard occurs along the coast from San Francisco to Baja California. Silvery legless lizard occurs in the southeastern portion of the Agricultural Residential Cluster Subdivision site on sandy soils within blue oak woodland. This species also has potential to occur throughout the site on sandy and sandy loam soils within open oak woodland, chamise chaparral, and central coastal scrub habitats.

Coast horned lizard (*Phrynosoma coronatum* [*frontale* population]*)*; CDFG California Special Concern wildlife species). The coast horned lizard is found in a variety of plant communities including scrub and chaparral habitats, valley-foothill woodlands, annual grasslands, and open riparian woodlands. This species tends to thrive in areas with friable soils with which they can burrow into during times of inactivity. The coast horned lizard forages on open ground and subsists primarily on ants. This species occurs along the coast from San Francisco south to Baja California and throughout the Central Valley and Sierra Nevada foothills. This species occur**s** east of Pozo Road on the Future Development Program site within the chamise-chaparral habitat. Coast horned lizard has potential to occur throughout the Agricultural Residential Cluster Subdivision site on sandy and sandy loam soils within open oak woodland, chamise chaparral, and central coastal scrub habitats.

California red-legged frog (*Rana aurora draytonii*; CRLF; Federally Threatened and CDFG California Special Concern wildlife species). The CRLF is found in stagnant or slow moving water with depths greater than two feet and surrounded by dense shrubs, or emergent riparian vegetation, such as arroyo willow, cattails, and bulrushes. However, CRLF use a variety of habitat types, including various aquatic, riparian, and upland habitats. Additionally, at any time of the year, adult CRLF may move long distances from breeding sites. The majority of extant localities are isolated, fragmented remnants of larger historical populations and occur along the coast from Mendocino County to Baja California and throughout the Central Valley and Sierra Nevada foothills. California red-legged frog**s** occur~~s~~ within or adjacent to the Agricultural Residential Cluster Subdivision site in Trout, Tostada, **Taco,** and Yerba Buena Creeks**, and an agricultural pond between Trout and Taco Creeks**. This species also has potential to use on-site seasonal pools and upland habitats including grasslands and oak woodlands for dispersal during the November through April rain season.

Western spadefoot (*Spea hammondii*; CDFG California Special Concern wildlife species). The western spadefoot is a toad in the family Pelobatidae. The adults remain under ground during dry conditions in grassland, scrub or chaparral habitats. They can persist for many years under ground without emerging or feeding during dry periods. They move to breeding pools in mid-winter after seasonal pools have filled. They breed in vernal pools, ephemeral ponds and seasonal agricultural ponds that lack fish. The larval period can be completed in 3 to 11 weeks. The western spadefoot is distributed from the Central Valley at Redding, California south to Kern County, and along coastal counties from the Bay Area to Baja

California. In southern California their range extends inland to desert areas. This species was found during Inventory efforts in the Future Development area in SMR Pond 33.

Coast Range newt (*Taricha torosa torosa*; CDFG California Special Concern wildlife species). The Coast Range newt breeds in streams with clear water, rocks and boulders in central and southern California. They also breed in ponds and reservoirs in the northern part of their range. In central California, breeding occurs in two waves: January to February and March to April. The larval period is three to six months. The adults occupy terrestrial habitats as much as 1.6 miles from breeding sites. Terrestrial habitats include oak woodland, chaparral, grassland and coastal scrub. They are distributed along the coast from Mendocino County to San Diego County. This species was found during Inventory efforts in the upper portions of Yerba Buena and Trout Creeks.

Special-Status Bird Species

Cooper's hawk *(Accipiter cooperi;* CDFG California Special Concern wildlife species*).* The Cooper's hawk is an uncommon resident species that can be found in various wooded areas. It nests in tall trees and often hunts around human structures such as houses and birdfeeders. This species range occurs throughout most of the state. Cooper's hawk was observed foraging east of West Pozo Road within the riparian woodland of Trout Creek. This species is likely to occur on-site along Trout Creek east of West Pozo Road, the lower wooded portion of Tostada Creek, and oak woodlands throughout the Agricultural Residential Cluster Subdivision site.

Sharp-shinned hawk (*Accipiter striatus;* CDFG California Special Concern wildlife species). The sharp-shinned hawk is an uncommon permanent resident or winter visitor found in a variety of habitats. It tends to prefer riparian plant communities, but will also inhabit pine and oak woodlands on north facing slopes and forages at the edge of woodlands where it hunts birds, mammals, insects, and reptiles. The sharp-shinned hawk occurs throughout California. The sharp-shinned hawk was observed foraging east of West Pozo Road within the riparian woodland of Trout Creek. This species is likely to occur on-site along Trout Creek east of West Pozo Road, the lower wooded portion of Tostada Creek, and oaks woodlands throughout the site.

Golden eagle (*Aquila chrysuetos;* CDFG California Special Concern wildlife species). The golden eagle is an uncommon resident of mountainous and valley-foothill areas. Nesting occurs on cliff ledges and overhangs or in large trees. Foraging typically occurs in open terrain where small rodent prey is seen while soaring high above ground. This species occurs throughout California except the central valley. The golden eagle was observed foraging over grasslands and open woodland throughout the Agricultural Residential Cluster Subdivision site **and nesting was observed on a high power line tower within the Santa Margarita Ranch**.

Ferruginous hawk (*Buteo regalis*; CDFG California Special Concern wildlife species). The ferruginous hawk is an uncommon winter resident and migrant found in open grassland, sagebrush, and desert scrub habitats. It is a fairly common winter resident in grasslands and agricultural areas in southwestern California. This species nests on cliffs, cut banks, natural or man-made structures, shrubs, or in an isolated tree. It hunts for small mammals, birds, and reptiles by flying low over open areas. The ferruginous hawk occurs throughout California except for high elevation or heavily forested areas of the Sierra Nevada, Klamath, and Cascade

Mountains. The ferruginous hawk was observed foraging east of West Pozo Road within the riparian woodland along Trout Creek and would be expected to forage within the open grasslands and scrub of the Agricultural Residential Cluster Subdivision site and roosting within the woodlands.

Yellow warbler (*Dendroica petechia*; CDFG California Special Concern wildlife species). The yellow warbler is a common summer resident found in riparian woodland habitats. It forages for insects in the upper canopy of deciduous woodlands and nests in the dense understory vegetation. This species occurs throughout mountainous areas of California. The yellow warbler was observed foraging within the riparian woodland of Trout Creek near Sycamore Canyon. Nesting was also expected at this location. This species is likely to occur on-site within other portions of Trout Creek, Yerba Buena Creek, and the lower wooded portion of Tostada Creek.

White-tailed kite (*Elanus leucurus;* Fully Protected Species). The white-tailed kite is found in open herbaceous habitats and is rarely found far from agricultural areas. It nests at the top of trees with dense canopy cover and feeds primarily on voles and other diurnal mammals by hovering and then swooping down on its prey. This species occurs west of the Sierra Nevada Range. The white-tail**ed kite** was observed foraging over Moore Ridge and Miller Flats during general survey efforts. Nesting behavior was observed within the northwest portion of the Agricultural Residential Cluster Subdivision site in blue oak woodland. The nest was not located.

California horned lark (*Eremophila alpestris actia;* CDFG California Special Concern wildlife species*).* California horned larks are resident species found in open country with sparse vegetation, including agricultural fields and short grassland. This species nests and forages on the ground and feeds on insects, snails, seeds, and grass. The California horned lark can be found throughout most of the state and is less common in mountainous or heavily forested areas. This species is likely to occur on-site within more or less level areas within the California annual grassland habitat.

Merlin (*Falco ~~mexicanus~~* ***columbarius***; CDFG California Special Concern wildlife species). The merlin is an uncommon resident and migrant species found in open habitats including grasslands, desert scrub, rangelands, and agricultural areas. This species requires large cliff ledges overlooking open areas for nesting. It hunts for small mammals, reptiles, and birds by diving from a perch or while soaring above ground. The merlin occurs throughout California except in heavily forested areas of the Sierra Nevada and north Coast Ranges.

Prairie falcon (*Falco mexicanus*; CDFG California Special Concern wildlife species). The prairie falcon is present in California year-round. It nests in cliffs overlooking large open areas. They forage in open habitats and grasslands. This species has been observed on the Santa Margarita Ranch.

Bald eagle (*Haliaeetus leucocephalus;* Federally Threatened and State Endangered, Fully Protected). The bald eagle is found in various woodlands near large bodies of water. It winters at lakes, reservoirs, and river systems and nests mainly in mountainous areas with large mature trees near water. This species are opportunistic foragers and eat fish, birds, and small mammals. The bald eagle can be found throughout most of the state except in dry desert areas.

~~This species has the potential to nest on-site within large foothill pine trees within the blue oak woodland habitat.~~ Potential foraging habitat for the bald eagle is likely to occur within nearby Santa Margarita Lake and the Salinas River. The ~~B~~**b**ald eagle is not expected to ~~forage~~ **nest** on-site**, but they have been observed foraging on Santa Margarita Ranch**.

Yellow breasted chat (*Icteria virens*; CDFG California Special Concern wildlife species). The yellow-breasted chat is an uncommon summer resident and migrant found in various riparian habitats. It requires thick riparian vegetation near watercourses for nesting and feeding. This species occurs throughout the Klamath and Cascade Mountains, western Sierra Nevada Foothills, and along the coast from San Francisco south to Baja California. This species has potential to nest and forage on-site with the riparian woodlands of Tostada and Trout Creeks**, and there is a historical record of nesting in lower Trout Creek**.

Loggerhead shrike (*Lanius ludovicianus;* CDFG California Special Concern wildlife species*).* The loggerhead shrike is a common resident species that frequents a variety of open and semi-open habitats including grassland, coastal sage scrub, and open riparian scrub and riparian woodland. The shrike nests in shrubs in coastal sage scrub and chaparral habitats or in trees that overlook grasslands. This species searches for prey over semi-open habitats and feeds primarily on large insects and often skewers prey on a barb or thorn to cache for later feeding. The loggerhead shrike occurs throughout most of the state except the Sierra Nevada Range and northwest California. The loggerhead shrike was observed nesting in a red willow overhanging Taco Creek bordering the ~~northern~~ **south**eastern boundary of the Agriculture Residential Cluster Subdivision. This species has the potential to nest and forage on-site with the riparian woodland and scrublands of Tostada and Trout Creeks and coastal scrub, chaparral, and grasslands throughout the site.

Purple martin (*Progne subis*; CDFG California Special Concern wildlife species). The purple martin is a summer migrant that inhabits valley-foothill woodlands, montane woodlands, coniferous, and riparian habitats. It hunts for insects by gliding above the ground and nests in old, tall trees often near water. The purple martin occurs throughout the Coast Ranges, Klamath and Cascade Mountains, and western Sierra Nevada foothills.

Special-Status Mammal Species

Pallid bat (*Antrozous pallidus*; State Species of Special Concern). Pallid bats are large bats and can be found in a variety of habitats including grasslands, shrublands, and woodlands, but are most common in open, dry habitats with rocky ledges for roosting. This is a resident species that occurs throughout the entire state.

Townsend's big-eared bat (*Corynorhinus townsendii*; CDFG California Special Concern wildlife species). The Townsend's big-eared bat is an uncommon resident found in all habitat types except for sub-alpine and alpine areas and requires caves, tunnels, mines, or other man-made structures for roosting. This bat feeds primarily on moths, but will eat a variety of soft-bodied insects. This species occurs throughout the state.

American badger (*Taxidea taxus;* CDFG California Special Concern wildlife species). American badgers occur in open scrubland or grassland habitats with friable soils and adequate prey base. This species digs burrows for cover and feeds on a variety of rodents, insects, reptiles, worms,

birds, and carrion. The American badger can be found throughout the state except in the northern coastal area.

Other uncommon wildlife species observed on-site include the California fairy shrimp (*Linderiella occidentalis*), grasshopper sparrow (*Ammodramus savannarum*), Lawrence's goldfinch (*Carduelis lawrencei*), lark sparrow (*Chondestes grammacus*), olive-sided flycatcher (*Contopus cooperi*), oak titmouse (*Parus inornatus*), Nuttall's woodpecker (*Picoides nuttallii*), California thrasher (*Toxostoma redivivum*), western red bat (*Lasiurus cinereus*), small-footed myotis (*Myotis ciliolabrum*), long-legged myotis (***M~~i~~myotis volans***), and Yuma myotis (*Myotis yumanensis*). These wildlife species are ranked by the CDFG in the CNDDB and are found on other lists including Bureau of Land Management, U.S. Forest Service, California Department of Forestry, United States Bird Conservation, Birds of Conservation Concern, Western Bat Working Group, and Point Reyes Bird Observatory.

f. Regulatory Setting. Regulatory authority over biological resources is shared by Federal, State, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions, in this instance, the County of San Luis Obispo. The CDFG is a trustee agency for biological resources throughout the state under CEQA and also has direct jurisdiction under the Fish and Game Code of California. Under the State and Federal Endangered Species Acts, the CDFG and the USFWS also have direct regulatory authority over species formally listed as Threatened or Endangered. The ACOE has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal Clean Water Act. Protection for wetlands and riparian habitat is also afforded through the California Fish and Game Code, and local and regional water quality control boards. Additionally, Section 3503.5 of the Fish and Game Code of California protects birds of prey, their nests and eggs against take, possession, or destruction.

Pursuant to the Federal Endangered Species Act (FESA), a permit from USFWS is required for "take" of a Federally listed species through either the Section 7 or Section 10 consultation process. Species "take" can be authorized under Section 7 of the FESA if a Federal agency is involved in the project (e.g., ACOE Section 404 permitting and/or Federal funding) and agrees to be the lead agency requesting Section 7 consultation. This consultation process includes a Biological Assessment of the predicted impacts of a project on the species with measures to minimize and mitigate for such impacts. The result is a Biological Opinion rendered by USFWS that includes a specified allowable incidental take as well as terms and conditions to minimize and offset such take. Take may or may not be issued for operation of a project. The Section 10 consultation process is used to authorize incidental take when no Federal agency is involved. This process includes development of a Habitat Conservation Plan for protecting and enhancing the Federally listed species at a specific location in perpetuity. If "take" were only issued for construction activities, or limited only to those specific areas where an ACOE Section 404 permit is required, a Section 10 permit may be needed for the long-term life of a project. If no Federal nexus can be invoked through the Section 404 permitting process, a Section 10 permit must be obtained for construction and operation of a project.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. This impact analysis of biological resources was based on a review of previous biological studies prepared for the Santa Margarita Ranch including an extensive plant and animal inventory, general field surveys and focused botanical surveys, USFWS protocol California red-legged frog (CRLF) and a USFWS protocol wet-season vernal pool fairy shrimp (VPFS) survey, a wetland delineation review, and consultation with knowledgeable local biologists and resource protection agencies. Data used for this analysis includes project related map layers, aerial photographs, topographic maps, CNDDB database, previous biological report findings, field survey results, scientific literature, and professionally accepted flora manuals and wildlife field guides to identify species.

Project impacts to plant and wildlife and their habitats may be determined to be significant even if they do not directly affect rare, threatened, or endangered species. CEQA, Chapter 1, Section 21001 (c) states that it is the policy of the state of California to "Prevent the elimination of fish and wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities." Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing CEQA guidelines, federal, state and local plans, and ordinances.

In accordance with Appendix G of the State CEQA Guidelines, impacts would be significant if development under the Agricultural Residential Cluster Subdivision or the Future Development Program would result in any of the following:

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

The County of San Luis Obispo General Plan, Salinas River Planning Area, and the County of San Luis Obispo Land Use Ordinance contain specific policies for the protection of biological resources. Project consistency with these policies is evaluated in Appendix C, *Policy Consistency*, of this EIR.

b. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.
Table 4.3-5 provides a summary of habitat impacts discussed in the Impacts B-1 through B-3. Impacts and Mitigation Measures are discussed below:

Table 4.3-5 Impacts to Habitat Types Resulting from Development of the Proposed Agricultural Residential Cluster Subdivision

Habitat Type	Total Acreage	% of Total Site	Impacted Area (Acres)	% of Habitat Area Impacted per habitat type
California Annual Grassland	~~1103.6~~ **1151.3**	**30.5%**	~~39.6~~ **32.7**	~~3.6~~ **3**%
~~Valley needlegrass grassland~~ **Native perennial grassland**	~~66.8~~ **79.8**	**2.1%**	~~24.0~~ **34.3**	~~35.9~~ **43**%
Central (Lucian) Coastal Scrub	~~20.7~~ **20.5**	**0.5%**	~~0.7~~ **0.2**	~~3.4~~ **1**%
Chamise Chaparral	~~30.8~~ **33.9**	**0.9%**	~~2.1~~ **0.0**	~~6.8~~ **0**%
Blue Oak Woodland	~~943.0~~ **890.0**	**23.6%**	~~43.2~~ **26.0**	~~4.6~~ **3**%
Coast Live Oak Woodland	~~235.5~~ **104.3**	**2.8%**	~~20.2~~ **4.3**	~~8.6~~ **4**%
Valley Oak Woodland	~~224.7~~ **215.7**	**5.7%**	~~12.1~~ **2.4**	~~0.5~~ **1**%
Mixed oak woodland	**190.4**	**5.0%**	**27.4**	**14%**
Riparian/Riverine	~~100.3~~ **41.6**	**1.1%**	~~0.8~~ **0.0**	~~0.8~~ **0**%
Emergent Wetlands~~/Seasonal Pools~~	~~182.4~~ **191.7**	**5.1%**	0.0	0~~.0~~%
Seasonal Pools	**4.8**	**0.1%**	**0.0**	**0%**
Ruderal	**0.5**	**0.0%**	**0.0**	**0%**
Agriculture (Vineyards and stock ponds)	~~870.6~~ **853.6**	**22.6%**	0.0	0~~.0~~%
TOTAL	**3,778**	**100%**	~~**142.7**~~ **127.2**	~~**3.8**~~ **3%**

Habitat type acreages are approximate and are based on aerial photography.

Agricultural Residential Cluster Subdivision Impact B-1

The proposed Agricultural Residential Cluster Subdivision would result in the conversion of the common habitat types California Annual Grassland, Central (Lucian) Coastal Scrub, and Chamise Chaparral to residential uses and associated improvements. This is a Class III, *less than significant* impact.

The California Annual Grassland habitat, as illustrated in Figure 4.3-2, is located throughout the Agricultural Residential Cluster Subdivision site in flatter areas and areas bordering oak woodland habitats while Central (Lucian) Coastal Scrub and Chamise Chaparral habitats are primarily located in the northern portion of the site on south and west facing hillsides. Development of several proposed lots within the Agricultural Residential Cluster Subdivision would directly impact these habitats. Development of Lots 1, 21-27, 29-35, 39-40, 43, 66, 71-80, 83, and 88-114 and associated roads would directly impact 39.6 acres of California annual grassland habitat, development of Lot 93 and associated roads would directly impact

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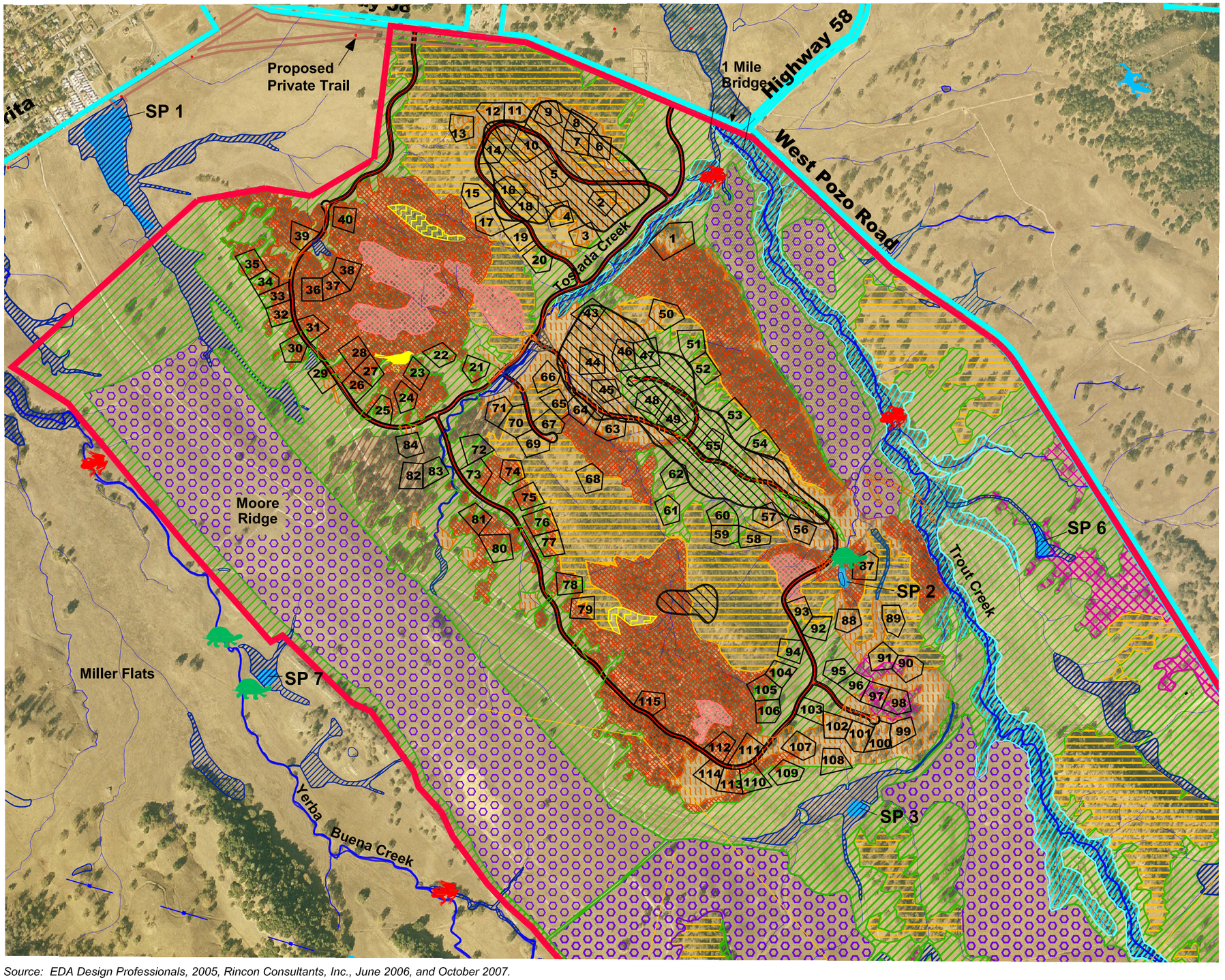


LEGEND

Habitats

- Native Perennial Grassland
- CA Annual Grassland
- Central (Lucian) Coastal Scrub
- Chamise Chaparral
- Blue Oak Woodland
- Coast Live Oak Woodland
- Valley Oak Woodland
- Mixed Oak Woodland
- Ruderal
- Emergent Wetland
- Waters of the U.S.
- Seasonal Pools
- Riparian
- Agriculture (Vineyard/Dry Farm)

PROPOSED PROJECT

- Agricultural Residential Cluster Subdivision Boundary
- Ranch Property Boundary
- 1 Proposed Lots
- Proposed Roads

SPECIAL-STATUS SPECIES

- = California Red-legged Frog
- = Coast Horned Lizard
- = Southwestern Pond Turtle
- = White Tailed Kite
- = San Luis Obispo Mariposa Lily

N

0 500 1000 Feet

Proposed Agricultural Residential Cluster Subdivision Biological Impact Map

Figure 4.3-2

Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006, and October 2007.

approximately 0.7 acre of central (Lucian) coastal scrub habitat, and development of Lots 74 – 79 would directly convert approximately 2.1 acres of chamise chaparral habitat. These habitat types are not considered to be rare plant communities as they relate to botanical resources, since they are common throughout the region and central to southern portions of the state. The rarest habitats are those that occupy less than 0.08% of vegetation cover in California (California Department of Forestry and Fire Protection, 2002). In California, the California annual grassland occupies approximately 10.7 million acres or 10.61% of vegetation; the coastal scrub occupies approximately 1.7 million acres or 1.71% of vegetation cover; and, the chamise chaparral habitat occupies approximately 1.4 million acres or 1.37% of vegetation (California Department of Forestry and Fire Protection, 2002). As such, impacts to these habitat types from implementation of the Agricultural Residential Cluster Subdivision would be considered Class III, less than significant.

Mitigation Measures. No mitigation is required to address the loss of these common habitat types. However, California annual grassland within the Agricultural Residential Cluster Subdivision supports foraging habitat for special-status wildlife species including the golden eagle, white-tailed kite, loggerhead shrike, and pallid bat and potential foraging habitat for merlin, **prairie falcon,** bald eagle, and ferruginous hawk. It also potentially provides nesting habitat for the horned lark and den habitat for the American badger. California red-legged frog (CRLF) may also use these habitats for dispersal during the rain season. In addition, these habitats could potentially support special-status reptile species including the silvery legless lizard and coast horned lizard. Therefore, impacts to these habitat types would represent impacts to special status wildlife species. Agricultural Residential Cluster Subdivision measures B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**), B-9(a) (Legless and Horned Lizard Capture and Relocation), B-9(c) (Pre-~~C~~**c**onstruction Bird Survey) and B-9(d) (**American** Badger Avoidance) would mitigate for special-status species that may use California annual grassland, central (Lucian) coastal scrub, and chamise chaparral habitats should they occur on-site. No special-status plant species were observed within these habitats.

Residual Impacts. Impacts would be less than significant. Implementation of the mitigation measures referenced above would reduce impacts to special-status species that use or may use these habitats to a less than significant level.

Agricultural Residential Cluster Subdivision Impact B-2	**The proposed Agricultural Residential Cluster Subdivision would result in direct impacts to Native Perennial Grassland, which is a rare plant community and includes Valley Needlegrass Grassland, which is a CDFG Sensitive Natural Community. This would be a Class II, *significant but mitigable* impact.**

As illustrated in Figure 4.3-2, residential lots and associated roads within the Agricultural Residential Cluster Subdivision would occur in areas of ~~the Valley Needlegrass~~ **Native Perennial Grassland** habitat. Development of the following proposed lots would convert ~~valley needlegrass grassland~~ **Native Perennial Grassland** habitat to residential uses~~:. The residential development would impact on-site valley needlegrass grassland habitat occurring within~~ Lots ~~2-14, 16, 18, 46-57, 60-62, and 87~~ **1-13, 29, 39, 43-46, 50, 56-57, 63-66, 71, 87-88, 90, 99-102, 107-108, 111 and 114**. Impacts to this habitat would occur as a result of soil and surface

disturbance or fragmentation of habitat through grading and other ground disturbance, and the placement of permanent residential structures and anticipated landscaping within the lots. **Additional impacts include typical residential activities, rural residential uses such as livestock grazing, creation of horse paddocks or other fenced areas for pets, and vehicle storage.** About ~~24.0~~ **34.3** acres of ~~valley needlegrass grassland~~ **Native Perennial Grassland**, which is a ~~**CDFG Plant Community of Special Concern or**~~ rare plant community **and includes Valley Needlegrass Grassland, which is a CDFG Sensitive Natural Community**, would be impacted by grading and development activities, based on field observations of contiguous grassland areas with **approximately** ~~more than 50~~ **10**% cover of purple needlegrass**, Sandberg's bluegrass, California oatgrass, or deergrass**. ~~This habitat type is included in the California Natural Diversity Database (CNDDB) by the CDFG as a rare plant community, because its extent in the state of California has been greatly reduced. In California, the valley needlegrass grassland occupies approximately 67,000 acres or 0.07% of vegetation (California Department of Forestry and Fire Protection, 2002).~~ **Percent cover of native grasses is expected to vary seasonally and annually, as well as under different grazing pressures. Therefore, any extensive areas in which native perennial bunchgrasses are a significant component of the species composition should be considered for impact analysis (Dave Hacker, CDFG, personal communication).** Therefore, the loss of this rare plant community is ~~considered~~ a Class II, *significant but mitigable* impact.

Mitigation Measures. The following mitigation measure would reduce impacts related to ~~valley needlegrass grassland~~ **Native Perennial Grassland** habitat:

Agricultural Residential Cluster Subdivision B-2(a)

~~**Valley Needlegrass**~~ **Native Perennial Grassland Restoration Plan.** The applicant shall contract with a qualified biologist to develop a ~~Valley Needlegrass~~ **Native Perennial** Grassland Restoration Plan. The Plan would consist of ~~restoring~~ **enhancing** the remaining ~~valley needlegrass~~ **Native Perennial** grassland habitat found on-site ~~and/or enhancing (restoring) valley needlegrass grassland within the California annual grassland habitat~~ **or creating Native Perennial Grassland habitat within areas presently vegetated by California annual grassland**. Specifically, the area of restoration should include at least ~~48.0~~ **69** acres (2:1 ratio) with at least ~~50~~ **10**% cover by purple needlegrass**, deergrass, or California oatgrass**, and should include open areas within blue oak woodland and coast live oak woodland. **In addition, native forbs shall be established in the restoration areas representing the species composition and relative cover that is present in the areas to be lost.** Other areas consisting of California **A~~a~~**annual **G~~g~~**rassland such as between Lots 88 and 108 are also suitable for enhancement ~~with purple needlegrass~~. In such areas, grassland management strategies such as seasonal mowing ~~or grazing~~ shall be employed, which will allow for a higher likelihood that perennial grasses could compete with the annual grasses found within these areas. The following measures shall be implemented.

1. A county-approved botanist/biologist shall develop a Plan

that provides specific measures to enhance and maintain the remaining on-site occurrences of ~~the valley needlegrass grassland habitat type~~ **Native Perennial Grassland**. This Plan shall be focused on adaptive management principles, and shall identify detailed enhancement areas and strategies based on the parameters outlined below, with timing and monitoring long-term requirements. The Plan shall:

a. Provide an up-to-date inventory of on-site occurrences of ~~valley needlegrass~~ **Native Perennial** Grassland habitat;

b. Define attainable and measurable goals and objectives to achieve through implementation of the Plan;

c. Provide site selection and justification;

d. Detail restoration work plan including methodologies, restoration schedule, plant materials (seed), and implementation strategies.

e. Provide a detailed maintenance plan to include ~~seasonally-timed low-intensity grazing and/or~~ mowing to provide a sufficient disturbance regime to keep non-native plant species from further reducing the extent of this habitat type on the property over time. This approach would also have the residual benefit of providing wildland fire protection. Enhancement and maintenance options shall employ recent techniques and effective strategies for increasing the overall area of ~~valley needlegrass~~ **Native Perennial** Grassland on-site and shall include but not be limited to reseeding disturbed areas with an appropriate native plant palette;

f. Define performance standards. Within the agriculture residential cluster subdivision project area, the restored area should include at least ~~48.0~~ **69** acres (2:1 ratio) with at least ~~50~~ **10**% cover by ~~purple needlegrass~~ **native perennial grasses**; and,

g. Provide a monitoring plan to include methods and analysis of results. Also, include goal success or failure and an adaptive management plan and suggestions for failed restoration efforts.

Plan Requirements and Timing. The ~~Valley Needlegrass~~ **Native Perennial** Grassland Restoration Plan shall be prepared by a County approved biologist/botanist. Prior to ~~approval~~ **issuance** of Grading Permits, the applicant shall submit a copy of the Plan to Planning and Building for review **and approval**. **Monitoring.** Planning and Building staff, in consultation with a County assigned biologist/botanist, shall verify that the open space

mitigation and monitoring plan for the ~~valley needlegrass~~ **Native Perennial** Grassland habitat is adequate. A monitor approved and hired by the County at the applicant's expense shall be required to monitor all phases of the mitigation plan.

Residual Impacts. The implementation of the above mitigation measure would reduce impacts to ~~valley needlegrass~~ **Native Perennial** Grassland habitat to a less than significant level. Seasonal mowing or low-impact grazing practices could have beneficial secondary impacts with respect to wildland fire protection.

Agricultural Residential Cluster Subdivision Impact B-3

The proposed Agricultural Residential Cluster Subdivision would result in the removal of and/or impacts to an estimated 200 to 400 blue oak, coast live oak, and valley oak trees ~~within the Blue Oak Woodland, Coast live Oak Woodland, Valley Oak Woodland, Valley Needlegrass Grassland, and California Annual Grassland habitats on the site~~ as well as the conversion of 60.1 acres of native oak woodland habitat. In ~~the short term~~ accordance with Kuehl Bill mitigation techniques, half of the oak trees that are removed or impacted can be replaced, but ~~the quality of their~~ due to the long time-period required for the planted trees to possess equivalent oak woodland habitat values ~~will not be the same until the new trees mature, the timeframe of which cannot be accurately determined,~~ and the fact that there is no assurance that oak trees designated to remain on the lots will be protected in the future, impacts to oak trees and ~~Thus, impacts to~~ oak woodlands are Class I, ***significant and unavoidable.***

The proposed development of residential lots and associated roadways within the Agricultural Residential Cluster Subdivision would result in the direct removal~~, trimming, and grading within the root drip zone of~~ **and indirect impacts to** blue oak, coast live oak, and valley oak tree**s, as well as the conversion of native oak woodland habitats** ~~located in the Blue Oak Woodland, Coast Live Oak Woodland, and Valley Oak Woodland. Development of several of the proposed lots within the Agricultural Residential Cluster Subdivision would directly impact a substantial portion of oak woodland habitats.~~ **Valley Oak Woodland is considered to be a Sensitive Natural Community by the CDFG.** Development impacts would disturb or fragment approximately ~~43.2~~ **26.0** acres of ~~b~~**B**lue ~~o~~**O**ak, approximately ~~20.2~~ **4.3** acres of ~~c~~**C**oast ~~l~~**L**ive ~~o~~**O**ak, **27.4 acres of Mixed Oak,** and ~~12.1~~ **2.4** acres of ~~v~~**V**alley ~~o~~**O**ak ~~w~~**W**oodland habitat~~,~~ ~~and blue oak, coast live oak, and valley oak trees within these habitats and within the valley needlegrass grassland and California annual grassland habitats~~. **Because many lots are situated in oak woodland habitats with a high density of oak trees, residential construction would require the removal of a substantial number of trees, as discussed below. Additional impacts to oak woodland resources would be through direct removal and impacts to individual trees as a result of road improvements for the development. An unknown number of trees would be impacted within the lots due to grading or compaction within the root zone; limbing or thinning per CalFire requirements; changes to water regime due to landscape irrigation, leach fields, or creation of impervious surfaces; decreased reproduction due to browsing by livestock, mowing, and other ground disturbance; and other types of residential activities that would affect the soil fungi upon which oak trees are associated.**

Removal of large areas of Blue Oak Woodland, Coast Live Oak Woodland, **Mixed Oak Woodland,** and Valley Oak Woodland habitat types is considered a significant impact due to the long time period necessary for these habitats to establish, and the relatively high ~~amount and~~ quality ~~of~~ wildlife habitat that ~~they~~ **these areas** provide. **Re-establishment rates can vary widely between project sites and over time. For example, valley oaks planted in a favorable site can develop to sizable trees with adequate canopies in 25 to 30 years. In contrast, blue oaks, which are a slower growing species, may require 100 years for trees to develop moderate-sized canopies. Establishment rates would be shorter in riparian floodplains that lack agricultural uses (Bernhardt and Swiecki, 2001).**

In the short-term, ~~these~~ impacts **to oak woodland habitats** are significant and unavoidable because ~~of direct impacts to wildlife habitat due to the removal of a large quantity of oak trees and indirect impacts residential structures will have on the existing oak tree habitat as a result of lighting and landscaping between oak tree clusters. The development of residential lots will also directly affect the movement and/or dispersal ability of special-status and common wildlife species through these habitats~~ **a substantial amount of native oak woodland habitat will be converted to other land uses, and there will be a long delay before replanted trees will possess equivalent wildlife habitat values**.

~~State Law, as per the SB 1334 Kuehl bill, requires counties to require a project that will significantly affect oak woodlands to offset the loss of any oaks destroyed.~~ **Senate Bill 1334, the Kuehl Bill, specifies procedures for mitigating effects of oak woodland conversions. Under SB 1334, mitigation may include: (1) conservation of oak woodlands through the use of conservation easements; (2) planting and maintaining replacement trees for a period of seven years; (3) contribution of funds to the Oak Woodlands Conservation Funds; and/or (4) other mitigation measures developed by the County. It should be noted that replacement plantings may only fulfill up to 50% of a particular project's mitigation requirement under this bill. As noted previously, the County of San Luis Obispo currently defines "oak woodlands" as those areas with greater than 10% canopy cover by native oak trees, and defines an impact to oak woodlands as the removal of 10% of the canopy cover or ten oak trees. Under these definitions, the Agricultural Residential Cluster Subdivision would have a significant impact to oak woodlands.**

The County **currently** requires a 4:1 replacement ratio (trees replaced to trees lost) for oak trees greater than five inches diameter at Diameter Breast Height (DBH) ~~or~~ **at 4.0** feet above mean natural grade, and a 2:1 replacement ratio for oak trees impacted but not removed as a result of construction activities. Development of residential lots and road infrastructure within the Agricultural Residential Cluster Subdivision would directly or indirectly impact oak trees during construction activities**, road improvements, and through residential use of the lots** ~~(proposed Lots 1-7, 10-40, 43-84, 87-102, and 103-115 and Road A)~~. Although a few lots contain scattered oaks and avoidance measures may limit impacts to individual oak trees, ~~most~~ **50** of the proposed **112** lots contain relatively dense stands of oak trees **(proposed Lots 14-19, 23-24, 26-28, 30-40, 65-72, 74-84, 87, 89, 91, 93, 97-98, 112, 113 and 115)** and as such, the proposed Agricultural Residential Cluster Subdivision would result in direct and indirect impacts to hundreds of blue oak, coast live oak, and valley oak trees. ~~In addition, several Heritage or Stately Oak trees occur on-site and could potentially be impacted.~~

~~The Agricultural Residential Cluster Subdivision development area contains coast live oak, blue oak, and valley oak trees.~~ Based on an aerial map assessment of the proposed lot and associated road locations, it is estimated that more than 200 and as many as 400 oak trees have potential to be directly impacted as a result of the residential development. This is a Class I, *significant and unavoidable,* impact. These trees are a biological resource that provide habitat for several species of resident and migratory birds including the raptors listed in Table 4.3-4. Impacts and analysis regarding wildlife species associated with these trees are included in **Agricultural Residential Cluster Subdivision** Impact B-9.

Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially impact individual oak trees, depending on final design.

Mitigation Measures. Individual oak trees are considered to be a special-status biological resource by the County of San Luis Obispo and mitigation measures are required. The following measures are designed to ~~mitigate~~ **reduce** development-related impacts to **oak** trees ~~to a less than significant level per County requirements~~. Agricultural Residential Cluster Subdivision measure B-9(c) (Pre-Construction Bird Survey) contains requirements for avoiding impacts to potential nesting raptors or other migratory birds.

~~**Agricultural Residential Cluster Subdivision B-3(a)**~~

~~**Tree Identification.** The development plan shall be reviewed by the County approved arborist or botanist and must include the following information:~~

~~*1. The species, diameter at breast height, location, and condition of all existing trees;*~~
~~*2. Which trees will be retained, removed, or relocated;*~~
~~*3. The location of proposed utilities, driveways, street tree locations, and the size and species of proposed street trees; and*~~
~~4. *A landscaping plan that shows the size and species of all trees proposed to be planted in the project.*~~

~~**Plan Requirements and Timing.** The tree identification review shall be prepared by a County approved arborist. Prior to approval of Grading Permits, the applicant shall submit a copy of the arborist reviewed landscape plan to Planning and Building for review and approval. **Monitoring.** Planning and Building staff or a County approved arborist or botanist shall verify the landscape plan.~~

~~**Agricultural Residential Cluster Subdivision B-3(b)**~~

~~**Heritage Oak Tree Avoidance.** Grading and development within proposed lots shall avoid the removal of oak trees to the maximum extent possible. Such activities must minimize potential disturbance to oaks and their associated root zones to the maximum extent possible, with final site plans requiring concurrence from County staff to ensure compliance with this provision. Heritage oak trees or other oak trees with an equal to or greater than 36 inch DBH shall be avoided, or if avoidance is not feasible (with feasibility to be determined by the applicant in~~

consultation with County staff), then such oak tree(s) shall be transplanted to a determined receptor site. Refer to Agricultural Residential Cluster Subdivision measure B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan) for planting details.

Plan Requirements and Timing. Prior to approval of Grading Permits, the applicant shall submit a copy of the grading plans detailing the location of all Heritage Oak Trees. If avoidance is not feasible, then the relocation sites for the heritage oak tree(s) shall be identified on the Landscape plans and submitted to Planning and Building for review and approval. **Monitoring.** Planning and Building staff or a County approved arborist or botanist shall verify the landscape plan. Planning and Building approved arborist or botanist shall monitor relocation of heritage oak tree relocation.

Agricultural Residential Cluster Subdivision B-3(c)

Oak Tree Protection and Mitigation and Monitoring Plan. A qualified arborist/botanist shall inventory all oak trees within 200 feet of the limits of grading and provide measures to ensure the required replacement ratios per County standards are achieved, and that remaining oak trees are adequately protected during construction activities. In addition, the project arborist/botanist shall monitor construction activities and enforce an approved tree protection plan. Tree protection guidelines and a root protection zone shall be established and implemented for each tree to be preserved. On average, the outer edge of the tree root zone is 1.5 times the distance from the trunk to the dripline of the tree. For Valley Oak trees, the protection/setback zone shall be 100 feet from the base of the trunk. The project arborist/botanist must approve work within the root protection zone.

Construction Requirements. Development of the proposed Agricultural Residential Cluster Subdivision shall abide by the requirements of the County approved arborist/botanist for construction. Requirements shall include but not be limited to: the protection of trees with construction setbacks; construction fencing around trees; grading limits around the base of trees as required; and a replacement plan for trees removed including replacement at a minimum 4:1 ratio for oak trees 5 inches DBH or greater.

Replacement plantings shall be from regionally- or locally-collected seed stock grown in vertical tubes or deep one-gallon tree pots. Cages shall be placed over each oak tree to protect it from deer and other herbivores. All oak trees should be planted between October to January. If planting occurs outside this time

~~period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented after approved by the County. Average tree densities shall be no greater than one tree every twenty feet and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. Replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g. lawns, leach lines, etc). A seasonally timed maintenance program, which includes appropriate browse protection, will be developed for all oak tree planting areas on the Agricultural Residential Cluster Subdivision. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced within the Agricultural Residential Cluster Subdivision. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County's Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. Annual monitoring reports will include specifics discussed below.~~

~~All trees planted as mitigation shall have an 80% survival rate after five years. If any trees planted as mitigation do not survive at five years from the time of planting, they will be replaced as soon as possible as determined by the arborist/botanist. The replacement mitigation trees shall also have an overall survival rate of 80% after five years from date of planting.~~

~~While the oak tree mitigation and monitoring plan would reduce impacts to oak trees and oak woodland, in some areas, oak trees and oak woodland habitat that are lost would take at least 50 years to restore because they take at least that long to establish. The loss of habitat values will also take a long period of time to mitigate by replacement plantings in recently developed or natural settings for the same reason. The lost mass can be mitigated in the long term by implementing the above mitigation measures, the oak tree mitigation and monitoring plan, but in the short term the lost mass cannot be replaced.~~

~~**Plan Requirements and Timing.** The final oak tree report and protection plan shall be prepared by a County approved arborist/botanist and reviewed by Planning and Building prior to issuance of grading permits. This report shall also identify the~~

~~final number of replacement trees utilizing the County's replacement ratio identified above. Prior to issuance of grading permits, the applicant shall file a receipt of evidence of posting a performance security that is acceptable to the County. Prior to occupancy clearance, trees shall be planted, fenced, and appropriately irrigated.~~ **Monitoring.** ~~Planning and Building staff or a County approved biologist shall verify oak tree report and protection plan compliance. Planning and Building shall conduct site inspections throughout all phases of development to ensure compliance with the plan and evaluate all tree protection and replacement measures. Release of performance security requires Planning and Building staff signature.~~

Agricultural Residential Cluster Subdivision B-3(a)

Oak Tree Inventory, Avoidance, and Protection Plan. The applicant shall prepare an Oak Tree Inventory, Avoidance and Protection Plan as outlined herein. The plan shall be reviewed by the County approved arborist prior to approval of grading permits, and shall include the following items:

1. **Comprehensive Oak Tree Inventory. This shall include the following information:**

   a) **An inventory of all trees at least 5 inches in diameter at breast height within 50 feet of all proposed Agriculture Residential Cluster Subdivision impact areas. All inventoried trees shall be shown on maps. The species, diameter at breast height, location, and condition of these trees shall be documented in data tables.**

   b) **Identification of trees which will be retained, removed, or impacted. This information shall be shown on maps and cross-referenced to data tables described in Item (a).**

   c) **The location of proposed structures, utilities, driveways, septic tanks, leach fields, grading, retaining walls, outbuildings, and impervious surfaces shall be shown on maps. The applicant shall clearly delineate the building sites/building control lines containing these features on the project plans. In addition, the plans shall include any fenced areas for livestock or pets and clearance areas prescribed by CalFire.**

   d) **A landscaping plan that describes the size and species of all trees, shrubs, and lawns proposed to be planted in the project area, including the limits of irrigated areas.**

   e) **Revised drainage patterns that are within 100 feet upslope of any existing oak trees to remain. All reasonable efforts shall be made to maintain historic drainage patterns and**

flow volumes to these trees. If not feasible, the drainage plan shall clearly show which trees would be receiving more or less drainage.

2. **Oak Tree Avoidance Measures. Grading and development within proposed lots shall avoid the removal of oak trees to the maximum extent possible. Such activities must minimize potential disturbance to oaks and their associated root zones to the maximum extent possible, with final site plans requiring concurrence from County staff to ensure compliance with this provision.**

3. **Oak Tree Protection Guidelines. Tree protection guidelines and a root protection zone shall be established and implemented for each tree to be retained that occurs within 50 feet of impact areas. The following guidelines shall be included:**

   a) **A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, based upon tree species, age, and size. This area will vary from 1.0 to 1.5 times its diameter at breast height [as specified in Harris, Clark and Matheny (2004) Arboriculture]. At a minimum, the critical root zone shall be the distance from the trunk to the drip line of the tree.**

   b) **All oak trees to remain within 50 feet of impact areas (construction or grading) shall be marked for protection and the root zone fenced prior to any grading. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. The project arborist must approve any work within the root protection zone.**

   c) **Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above ground surface.**

   d) **Unless previously approved by the County, the following activities shall be prohibited within the root zone of remaining oak trees: year-round irrigation (no summer watering, unless "establishing" a new tree or native compatible plant for up to 3 years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); or disturbance of soil that impacts roots (e.g.,**

tilling).

e) Trimming oak branches shall be minimized, especially for larger lower branches, and the amount done in one season shall be limited to 10 to 30% of the canopy to reduce stress/shock. If trimming is necessary, the applicant shall either use a qualified arborist or utilize accepted arborist's techniques.

Plan Requirements and Timing. The Oak Tree Inventory, Avoidance, and Protection Plan shall be prepared by a County approved arborist. Prior to approval of Grading Permits, the applicant shall submit a copy of the Plan to Planning and Building for review and approval. Monitoring. Planning and Building staff or a County approved arborist or botanist shall approve the Oak Tree Inventory, Avoidance, and Protection Plan.

Agricultural Residential Cluster Subdivision B-3(b)

Oak Tree Replacement, Monitoring, and Conservation. Of those trees identified under Agricultural Residential Cluster Subdivision measure B-3(a) as being removed or impacted, 50% shall be replaced per County and Kuehl Bill standards. A conservation easement or monetary contribution to the Oak Woodlands Conservation Fund shall be used for the remaining mitigation.

1. Replacement. The County approved arborist shall provide or approve an oak tree replacement plan at a minimum 4:1 ratio for oak trees removed and a minimum replacement ratio of 2:1 for oak trees impacted (i.e., disturbance within the root zone area).

a) Replacement plantings shall be from regionally- or locally-collected seed stock grown in vertical tubes or deep one-gallon tree pots. Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54" tall welded wire cattle panels (or equivalent material) and be staked using T-posts. Wire mesh baskets, at least two-foot diameter and 2-feet deep, shall be used below ground. Planting during the warmest, driest months (June through September) shall be avoided. The plan shall provide a species-specific planting schedule. If planting occurs outside this time period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented after approved by the County. Average tree densities shall be no greater than one tree every twenty feet and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. Replacement trees shall be planted in

a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g., lawns, leach lines, etc). Replanting areas shall be either in native topsoil or areas where native topsoil has been reapplied. A seasonally timed maintenance program, which includes regular weeding (hand removal at a minimum of once early fall and once early spring within at least a three-foot radius from the tree or installation of a staked "weed mat" or weed-free mulch) and a temporary watering program, shall be developed for all oak tree planting areas on the Agricultural Residential Cluster Subdivision. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced within the Agricultural Residential Cluster Subdivision. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County's Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year. Annual monitoring reports will include specifics discussed below.

b) <u>The restored area shall be at a minimum equal in size to the area of oak woodlands lost or disturbed.</u>

c) An approved arborist shall submit to the County an initial post-planting letter report, and thereafter annual monitoring reports shall be submitted. All trees planted as mitigation shall have an 80% survival rate after seven years. If any trees planted as mitigation do not survive at seven years from the time of planting, they will be replaced as soon as possible as determined by the arborist/botanist.

d) A cost estimate for the planting plan, installation of new trees, and maintenance of new trees for a period of seven years shall be prepared by a qualified individual and approved by the County. Prior to site grading/issuance of construction permits, a performance bond, equal to the cost of the estimate, shall be posted by the applicant. The replacement mitigation trees shall also have an overall survival rate of 80% after seven years from date of planting.

2. <u>Maintenance</u>. Unless previously approved by the County, the

following activities are not allowed within the root zone of newly planted oak trees:

a) Year-round irrigation (no summer watering, unless 'establishing' a new tree or native compatible plant for up to 3 years);
b) Grading (includes cutting and filling of material);
c) Compaction (e.g., regular use of vehicles);
d) Placement of impermeable surfaces (e.g., pavement); or
e) Disturbance of soil that impacts roots (e.g., tilling).

Trimming oak branches shall be minimized, especially for larger lower branches, and the amount done in one season shall be limited to 10 to 30% of the canopy to reduce stress/shock. If trimming is necessary, the applicant shall either use a qualified arborist or utilize accepted arborist's techniques.

3. Conservation Easements and/or Contribution to the Oak Woodlands Conservation Fund. Replanting detailed above can account for up to 50% of the mitigation requirement. The remaining mitigation shall be in accordance with the County's Oak Woodland Mitigation Plan. Per the County's draft Plan, the mitigation shall be a minimum of a 2,000 square foot conservation easement per tree removed (based upon an average 50 foot diameter canopy). The oak conservation area shall be designated on-site and be managed by a third party.

Plan Requirements and Timing. The oak tree replacement plan shall be prepared by a County approved arborist and reviewed by Planning and Building prior to issuance of grading permits. This report shall also identify the final number of replacement trees utilizing the County's replacement ratio identified above. Prior to issuance of grading permits, the applicant shall file a receipt of evidence of posting a performance security that is acceptable to the County. Prior to occupancy clearance, trees shall be planted, fenced, and appropriately irrigated. The conservation easement shall be established and/or contribution to the Oak Woodlands Conservation Fund shall be paid prior to issuance of grading permits. Monitoring. Planning and Building staff shall verify that the oak tree replacement plan and conservation easements and/or contribution to the Oak Woodlands Conservation Fund meet County mitigation ratios and other requirements. Planning and Building shall conduct site inspections throughout all phases of development to ensure compliance with the plan and evaluate all oak tree replacement measures. Release of performance security requires Planning and Building staff approval.

Residual Impacts. Implementation of the above mitigation measures would reduce impacts to oak trees and oak woodland habitat to the extent feasible. The effectiveness of the long-term provisions of the oak tree replacement would be a function of the financial capabilities of the applicant and the willingness of that entity to ~~enforce~~ **implement** the recommendations of the County-approved ~~biologist~~ **arborist** conducting the monitoring program.

In the short-term, impacts to oak trees and oak woodland habitats cannot be mitigated, because of the length of time required for replacement trees to reach maturity and **for the conservation areas to** have ~~a~~ similar habitat values as ~~those~~ **the oak woodland areas** that are ~~replaced~~ **removed and/or impacted**. Therefore, impacts remain ~~a~~ Class I, *significant and unavoidable* ~~impact~~.

Agricultural Residential Cluster Subdivision Impact B-4	**The proposed Agricultural Residential Cluster Subdivision would impact wetland and waters of the U.S. regulated by the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB) and riparian areas regulated by the California Department of Fish and Game (CDFG). These impacts are Class II, *significant but mitigable*.**

Approximately 0.8 acres of riparian habitat within the Agricultural Residential Cluster Subdivision site would be directly impacted and several wetland areas adjacent to residential lots and road would be indirectly impacted by the proposed development. The on-site wetland habitat consists of emergent wetlands adjacent to on-site creeks, wetlands within ephemeral drainages, and isolated wetlands. ACOE defined wetland does not include isolated wetlands and seasonal pools. The ACOE wetland habitat type has potential to be impacted by development of the Agricultural Residential Cluster Subdivision within proposed Lot 1 and Road "A". Additionally, ACOE defined "waters of the U.S." (i.e. ephemeral drainages without emergent wetlands that are connected to intermittent and perennial streams) and the riparian habitat associated with Trout and Tostada Creeks occur within or adjacent to the Agricultural Residential Cluster Subdivision. Development of proposed Lots 2, 10, 14, 17, 21, 29-30, 39, 43, 46-47, 51, 57, 63-64, 69, 78, 81, 83, 84, 85, 88, 100, 102, and 108 and Road A and D would directly impact waters of the U.S. (i.e. primarily tributaries (ephemeral drainages) to Tostada or Trout Creeks) and indirectly impacts Tostada and Trout Creeks via sedimentation. In addition, waters of the U.S. would be impacted by implementation of three road crossings over Tostada Creek.

The wetlands and waters of the U.S. areas on-site would be regulated on a federal, state, and local level, thus making it necessary to coordinate with applicable regulatory agencies such as the ACOE, RWQCB, and CDFG prior to impacting these resources. The fill of wetlands and waters of the U.S. is subject to a Section 404 permit under the Federal Clean Water Act (CWA). Discharges to wetlands and other waters are also subject to a CWA Section 401 certification from the RWQCB, and the removal of riparian vegetation may require a Streambed Alteration Agreement (SAA) through the CDFG. The 2001 Supreme Court S.W.A.N.C.C. decision (Solid Waste Authority of Northern Cook County vs. ACOE, 2001) has resulted in isolated waters (unless interstate commerce is supported by the waters) being removed from the ACOE regulatory authority. However, the RWQCB has adopted isolated wetlands into its 401 Water

Quality Certification. Additionally, vernal or seasonal pools may be regulated by ACOE, RWQCB, and possibly by the USFWS if a special-status species is present.

Direct impacts to wetlands and waters of the U.S. from development of the proposed Agricultural Residential Cluster Subdivision would result from road and lot construction. The proposed 40-foot wide Road A which begins at West Pozo Road near One Mile Bridge follows Tostada Creek between two residential areas: Lots 2-40 to the north and Lots 1, and 30-115 to the south. From the point of entry onto the site, Road A bends south towards Lot 1 and then tightly meanders southwest along Tostada Creek until it forks to the southeast and northwest along the entire stretch of Tostada Creek and its associated riparian habitat. Three roads cross Tostada Creek from Road A and include, Road C between Lots 72-77 and 80-84, Road D between Lots 63-66 and 44-45, and Road H between Lots 21 and 69-71. In all cases, a distinct bed or bank is evident and numerous adjacent wetlands associated with ephemeral drainages spur from Tostada Creek towards the proposed residential subdivision in a southeast and northwest direction. Trout Creek will not be impacted by any proposed road crossings; however, development of lots will indirectly impact Trout and Tostada Creek**s**.

Development of lots within the Agricultural Residential Cluster Subdivision will impact Trout Creek, Tostada Creek, adjacent wetlands, and seasonal pools. Trout Creek will be impacted by the development of Lots 87, 89, and 90 and Tostada Creek will be impacted by development of Lots 1, 21, 43, 66, 71, 83, 84, and 25. Indirect impacts could occur to the structure or vegetation within these areas due to nearby grading activities and bank modifications. Run-off from construction could have short-term significant impacts to on-site drainages. Silt, sedimentation, or run-off from construction practices could effect water quality in on-site drainages and in turn affect the species residing in or utilizing these areas. Dredge or fill would be required to build the various structures and road crossings. Because these areas may be considered jurisdictional, coordination with applicable regulatory agencies related to impacts on these areas is necessary.

Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially impact jurisdictional areas at road crossings, depending on final design.

Mitigation Measures. The following mitigation would reduce impacts related to state and federal jurisdictional wetlands, ephemeral drainages (other waters), and riparian habitat to a less than significant level. In addition, these habitat types support special-status wildlife species, namely California red-legged frog (CRLF) and ~~southern steelhead (SS)~~ **South/Central California Coast Steelhead**. Agricultural Residential Cluster Subdivision measures B-6(a) (VPFS Presence/Absence Determination), B-6(b) (~~FESA Consultation and~~ Mitigation ~~Regarding~~ **for** VPFS), B-7(a) (~~**SS Protection Plan**~~ **South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and Protection Plan**), ~~B-7(b) (FESA Consultation and Mitigation Regarding SS),~~ B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) and B-9(b) (Southwestern Pond Turtle Avoidance, Capture and Relocation) would reduce impacts to special-status species that may use the on-site wetland, seasonal pool, and riparian habitat types to a less than significant level. It should be noted that the grading and erosion control plan required to be prepared by the applicant [refer to Agricultural Residential Cluster Subdivision measure G-2(b) (Grading and Erosion Control Plan) in Section 4.6, *Geologic Stability*] includes measures, such as installation of silt fences, straw bales and sand bags, and buffers for temporary construction equipment storage and washing

areas, that specifically protect wetland, other waters, and riparian resources, during and following construction.

Agricultural Residential Cluster Subdivision B-4(a)

Wetland and Riparian Protection. Implementation of the following measures are required to mitigate the loss of riparian/wetland habitat:

1. Building envelopes shall be located so that all riparian and wetland habitat is buffered from development (including grading) by a minimum ~~100~~ **200**-foot setback from Trout**, Yerba Buena and Tostada** Creek**s** ~~and a minimum 50-foot setback from Tostada Creek~~, **or any other habitats found to support CRLF or Steelhead. Other** wetlands~~,~~ and waters of the U.S. **or state shall have a minimum setback of 100 feet.** If seasonal pools contain VPFS, **a minimum 300 foot setback shall be required.** ~~the USFWS may determine that a larger setback is needed to protect the pool habitat and avoid take of VPFS. The applicant shall comply with such USFWS recommendations.~~ **Setback requirements may be increased by the Corps, RWQCB, CDFG, NMFS and/or USFWS.**

2. The wetland and riparian habitat area buffer zones for preserved wetland and riparian areas shall be shown on all grading plans and shall be demarcated with highly visible construction fencing to ensure that these areas are not impacted during construction-related activities.

3. Erosion control measures including, but not limited to straw wattles, silt fences, and fiber mats shall be implemented at the limits of grading to reduce sediments from entering the wetland and riparian habitat area buffer zones.

4. **Outlet structures shall minimize disturbance to the natural drainage and avoid use of hard bank structures. Where erosion of outlet structures is a concern and bank stabilization must be utilized, bioengineering techniques (e.g., fiber mats and rolls, willow wattling, and natural anchors) shall be used for bank retaining walls. If concrete must be used, then prefabricated crib wall construction shall be used rather than pouring concrete. Rock grouting shall only be used if no other feasible alternative is available as determined by Planning and Building.**

5. **Disturbance to drainage bottoms due to the installation of any drain or outlet structures shall be minimized to the greatest extent possible and shall be permitted by all appropriate regulatory agencies as described in 8 below.**

6. **A grease trap and/or silt basin shall be installed in all drop**

inlets closest to the creek to prevent oil, silt and other debris from entering the creek. Such traps/basins shall be maintained and cleaned out every spring and fall to prevent overflow situations and potential mosquito habitats from forming;

If impacts to wetland and riparian habitat are not fully avoided, the following shall be implemented to mitigate impacts.

7. The applicant shall obtain a permit from the ACOE pursuant to Section 404 of the Clean Water Act, a water quality certification from the RWQCB pursuant to Section 401 of the Clean Water Act, and a Streambed Alteration Agreement from the CDFG pursuant to Section 1600 et seq. of the California Fish and Game Code for any grading or fill activity within drainages and wetlands.

   For development of Roads C, D, and H, which are proposed to cross Tostada Creek, the applicant shall consult with the ACOE and CDFG in designing ~~the roads~~ **creek crossings**. Where appropriate, and if there is concurrence with ACOE and CDFG, pre-engineered bridge structures ~~can be constructed~~ **are recommended** to minimize ~~potential~~ disturbance within the western portion of Tostada Creek.

   It is recommended that the applicant contact these agencies prior to final plan submittal in order to incorporate any additional requirements into the project design. As part of the permitting process, the applicant will be required to provide a compensatory habitat mitigation and monitoring program for impacts to jurisdictional areas. ~~The plan shall be written and implemented by a qualified biologist, and shall at a minimum include the following components:~~ **The Plan shall follow the minimum criteria described in Item 8 below.**

8. **A compensatory mitigation program at a minimum 2:1 ratio for the loss of any wetlands, including those not under federal or state jurisdiction but meeting one-parameter criteria (hydrology, vegetation, or soils), shall be designed. Regulatory agencies may require a greater mitigation ratio. At a minimum, the plan shall include the following components:**

   a. Mitigation plantings for the loss of existing wetland and riparian habitat shall be located in the drainages that are proposed to be modified or preserved as part of the proposed Agricultural Residential Cluster Subdivision to the fullest extent feasible. ~~The mitigation program must~~

~~provide a minimum 2:1 ratio of habitat values and functions to that impacted. However, agency permitting may require a higher ratio.~~

b. As part of the plan, the applicant shall include a mitigation-phasing section to ensure that all restoration plantings are in place with sufficient irrigation prior to final inspection.

c. Restoration/revegetation activities shall use native riparian and wetland species from locally collected stock.

d. Removal of native species in the creeks/drainages that are to be retained shall be prohibited; however, select willow cuttings and emergent plant division are permissible.

e. Prior to commencement of grading, the applicant shall file a performance security with the County to complete restoration and maintain plantings for a five (5) year period.

~~f. Outlet structures shall minimize disturbance to the natural drainage and avoid use of hard bank structures. Where erosion of outlet structures is a concern and bank stabilization must be utilized, bioengineering techniques (e.g., fiber mats and rolls, willow wattling, and natural anchors) shall be used for bank retaining walls. If concrete must be used, then prefabricated crib wall construction shall be used rather than pouring concrete. Rock grouting shall only be used if no other feasible alternative is available as determined by Planning and Building.~~

~~g. The drainage bottoms shall not be disturbed or altered by installation of any drain or outlet structure.~~

~~h. A grease trap and/or silt basin shall be installed in all drop inlets closest to the creek to prevent oil, silt and other debris from entering the creek. Such traps/basins shall be maintained and cleaned out every spring and fall to prevent overflow situations and potential mosquito habitats from forming; and~~

~~i. Construction envelopes shall be restricted to those areas shown on site Grading Plans to avoid impacts to native vegetation and sensitive habitats. Envelope boundaries shall be staked in the field. Construction envelopes shall be shown on all grading and building plans.~~

Plan Requirements and Timing. Prior to issuance of Grading Permits, the applicant shall submit the habitat mitigation and

monitoring plan and a copy of the ACOE permit, RWQCB 401 water quality certification, and CDFG Streambed Alteration Agreement or written confirmation that a permit is not required to Planning and Building for review and approval. **Monitoring.** Planning and Building shall conduct site inspections throughout all phases of development to ensure compliance with all habitat restoration measures. Planning and Building shall receive and review all required wetland permits from the ACOE, RWQCB, and CDFG.

A qualified biologist/wetland scientist knowledgeable about wetland permit requirements and approved by Planning and Building shall monitor all grading activities within 100 feet of Trout Creek and 50 feet of Tostada Creek or the appropriate setback as required by the USFWS, wetlands, and ephemeral drainages under jurisdictional Waters of the U.S. to ensure compliance with permit conditions. The monitor shall have the authority to stop all work immediately that is considered to be in violation of one or more permit conditions, at the sole discretion of the monitor. The monitor shall prepare inspection reports and submit them to Planning and Building on a weekly basis, unless more frequent submittals are considered necessary.

The erosion and sediment control structures and facilities shall be monitored throughout project construction by the wetland monitor and by Planning and Building. Planning and Building and construction personnel shall perform site inspections throughout the construction phase.

Planning and Building staff shall: 1) check plans prior to approval of Grading Permits; 2) inspect the site throughout the construction period to ensure compliance with all applicable permits; 3) inspect mitigation areas for permit compliance; 4) ensure bank stabilization structures are constructed according to the plan.

Planning and Building shall site inspect prior to occupancy clearance to verify installation of grease basins/traps and once each year to monitor maintenance.

Residual Impacts. Implementation of the above recommended mitigation measure would reduce impacts to a less than significant level. In addition, obtaining all the required ACOE, CDFG, and RWQCB permits for impacts within jurisdictional areas would result in a no-net-loss of functions and values to riparian/wetland habitats on-site.

Agricultural Residential Cluster Subdivision Impact B-5

The proposed Agricultural Residential Cluster Subdivision would impact San Luis Obispo Mariposa Lily, and may impact San Luis Obispo County morning glory, which are Special-

Status Plant Species. This would be a Class II, s*ignificant but mitigable* impact.

Construction of the proposed Agricultural Residential Cluster Subdivision would impact known occurrences of the San Luis Obispo mariposa lily, a special-status plant species. The San Luis Obispo ~~M~~**m**ariposa ~~L~~**l**ily is a CNPS List 1B plant and protected as a rare biological resource by the CDFG and County. It is not currently listed or proposed for listing by the Federal or State governments as identified in Table 4.3-3. Two extensive occurrences of San Luis Obispo mariposa lily plants were observed within the Agricultural Residential Cluster Subdivision disturbance areas. Development of proposed Lots 2 through 19, Lots 43 through 49, and Lots 51 through 66 and associated roadways would impact the San Luis Obispo mariposa lily by removal of plants or disturbance and fragmentation of habitat through grading and other ground disturbance. Although the San Luis Obispo morning glory, a CNPS List 1B species, was not identified during the 2006 spring and summer surveys, this species may nevertheless occur because it randomly distributes its seeds annually. It is likely that its on-site distribution would increase under ideal wet-spring conditions, or decrease in drought years. This would be a Class II, *significant but mitigable,* impact.

Mitigation Measures. The following mitigation measures are required in order to reduce impacts to the San Luis Obispo mariposa lily and San Luis Obispo County morning glory to a less than significant level:

Agricultural Residential Cluster Subdivision B-5(a)

Follow-up Special-status Plant Surveys. Follow-up special-status plant surveys for San Luis Obispo mariposa lily and San Luis Obispo County morning glory shall be performed in the spring prior to commencement of ground disturbance. The survey for San Luis Obispo mariposa lily shall be required only on potential impact areas (i.e., Lots 2 through 19, Lots 43 through 49, Lots 51 through 66, and the portion of Roads A and B) containing San Luis Obispo mariposa lily that are delineated on Figure 4.3-2. The applicant shall submit to the County an updated San Luis Obispo mariposa lily population survey report of the Agricultural Residential Cluster Subdivision site conducted by a County approved botanist.

The San Luis Obispo County morning glory has not previously been observed in the Agricultural Residential Subdivision area, but it is known to occur adjacent to the site southeast of Yerba Buena Creek in the Miller Flats area. Since suitable habitat exists, surveys shall be conducted prior to grading to determine whether this species exists in the project area.

The purpose of the follow-up special-status plant surveys is to provide accurate baseline information for the preparation of the San Luis Obispo mariposa lily and San Luis Obispo County morning glory mitigation and monitoring plan for the areas proposed for construction. The follow-up will ensure a current and accurate assessment of the numbers of individuals within

the Agricultural Residential Cluster Subdivision site that will be impacted by development. The updated survey shall quantify the total number of individuals within each lot and road segment proposed for development. Areas occupied by these species shall be flagged (and/or identified using a Global Positioning System) for future bulb and plant salvage and seed collection efforts.

Plan Requirements and Timing. The applicant shall submit to the County an updated survey report consistent with the survey criteria described above. The survey shall be conducted by a County approved botanist during April through June when plants are in bloom and evident. The applicant shall submit written proof that the CDFG has been contacted and supplied with the most recent survey results. The results of the follow-up survey shall be incorporated into the preparation of the mitigation and monitoring plan for the development.
Monitoring. The County shall verify that the survey has been conducted by a County approved botanist. The County shall also verify that the CDFG has been notified and any of their comments or concerns are included in the special-status plant species mitigation and monitoring plan.

Agricultural Residential Cluster Subdivision B-5(b)

San Luis Obispo Mariposa Lily and San Luis Obispo County Morning Glory Mitigation and Monitoring Plan. Prior to the issuance of any grading permits, a mitigation and monitoring plan that addresses impacts to the San Luis Obispo ~~M~~**m**ariposa ~~L~~**l**ily and San Luis Obispo County morning glory **(if present)** shall be prepared and approved by the County and CDFG. The detailed mitigation and monitoring plan shall be developed **by a County-approved qualified biologist** to protect and enhance the remaining occurrences of ~~this~~ **these** species ~~and to increase the overall numbers of San Luis Obispo mariposa lily and San Luis Obispo County morning glory located~~ within the Agricultural Residential Cluster Subdivision site **and describe a collection and restoration plan to mitigate for impacted areas**. The mitigation and monitoring plan shall at a minimum to include the following:

- **A worker education program that shall include identification of special-status plant species and their habitat, the limits of construction, efforts required to reduce impacts to these species, and a fact sheet summarizing this information;**
- **Description of a collection plan to ensure that all San Luis Obispo mariposa lily bulbs and seeds from San Luis Obispo County morning glory plants located within 25 feet of the proposed lots and roads will be removed by a**

qualified biologist during the appropriate season prior to clearing and grading activities associated with lot development and road construction;

- **Description of proposed propagation techniques using collected material;**
- ~~The overall goals and measurable objectives of the mitigation and monitoring plan;~~
- Specific areas proposed for revegetation **and rationale for why these sites are suitable** ~~and their size~~;
- Specific habitat management and protection concepts to be used to ensure long-term maintenance and protection of the San Luis Obispo mariposa lily and San Luis Obispo County morning glory such as annual population census surveys and habitat assessments; establishment of monitoring reference sites; fencing of species preserves and signage to identify the environmentally sensitive areas; a seasonally-timed weed abatement program; and seasonally-timed plant/seed/bulb collection, propagation, and reintroduction of San Luis Obispo mariposa lily and San Luis Obispo County morning glory into specified receiver sites;
- Success criteria based on the goals and measurable objectives to ensure a viable San Luis Obispo mariposa lily and San Luis Obispo County morning glory population**s** on the Agricultural Residential Cluster Subdivision site in perpetuity;
- An adaptive management program to address both foreseen and unforeseen circumstances relating to the preservation and mitigation programs;
- Remedial measures to address negative impacts to San Luis Obispo mariposa lily and San Luis Obispo County morning glory and their habitat that may occur during construction activities**,** as well as post-construction when dwellings are occupied;
- An education program to inform residents of the presence of San Luis Obispo mariposa lily, San Luis Obispo County morning glory, and other sensitive biological resources on-site, and to provide methods that residents can employ to reduce impacts to species occurrences in protected open space areas;
- Reporting requirements to track success or failure of the mitigation program and to ensure consistent data collection and reporting methods used by monitoring personnel; and,
- Maintenance and cost estimates.

The mitigation ratio (habitat **area** created to habitat **area** impacted) will be 2:1 for ~~every acre of~~ special-status plant species' habitat impacted by development of the Agricultural

Residential Cluster Subdivision. Mitigation for the San Luis Obispo morning glory may also occur in mitigation area designated for the Valley Needlegrass Grassland as this is the preferred habitat for this species [please refer to Agricultural Residential Cluster Subdivision measure B-2(a)].

Plan Requirements and Timing. The applicant shall submit to the County Environmental and Resource Management Division and CDFG the San Luis Obispo mariposa lily and San Luis Obispo County morning glory mitigation and monitoring plan for their review prior to issuance of grading permits. **Seed and/or bulbs shall be collected in the appropriate season immediately prior to the start of grading activities.** The mitigation and monitoring ~~plan~~ **efforts** shall be ~~implemented for a minimum of five years prior to any construction activities within occupied San Luis Obispo mariposa lily habitat~~ **continued for a period of five years to ensure that success criteria are met, and annual reports evaluating the success of the program shall be submitted to the County**. **Monitoring.** The County Environmental and Resource Management Division and CDFG shall incorporate any recommendations from their review into the final mitigation and monitoring program. The County shall **review the annual monitoring reports and** verify that the ~~annual~~ monitoring program has been conducted appropriately by a County-approved botanist.

~~**Agricultural Residential Cluster Subdivision B-5(c)**~~

~~**San Luis Obispo Mariposa Lily and San Luis Obispo County Morning Glory** Collection and Restoration **Plant, Seed and Bulb Collection and Distribution**. All San Luis Obispo mariposa lily **bulbs** and **seeds from** San Luis Obispo County morning glory plants located within 25 feet of the proposed lots and roads will be removed by a qualified biologist during clearing and grading activities associated with lot development and road construction. Like many closely-related species, these species can be grown from seed given the appropriate environment such as edaphic factors and competition from other plants. Therefore, mitigation for impacts to these occurrences shall consist of a qualified biologist collecting seed from impacted plants, storing the seed during construction activities, and distributing the seed into appropriate habitat in the vicinity of collection once construction of the proposed lots and roads are complete. Bulbs for San Luis Obispo mariposa lily also may be removed during flowering and transplanted to the receptor site. The applicant shall contract a County-approved botanist to prepare a seed salvage, storage and relocation plan for the San Luis Obispo mariposa lily occurrence impacted by the construction of lots and roads within the residential area as part of the mitigation plan, as well as any San Luis Obispo County morning glory occurrence that would be~~

~~impacted. The plan will identify the methods, techniques and timing of the seed collection, storage, and relocation program.~~

~~**Plan Requirements and Timing.** The seed salvage, storage and relocation plan shall be prepared prior to issuance of grading permits. Seed and bulb collection and distribution requirements shall remain in effect throughout all phases of construction with the potential to affect the species. **Monitoring.** Planning and Building shall review the salvage and relocation plan prior to issuance of grading permits and verify compliance during construction. The County shall also verify that the CDFG has been notified and reviewed the salvage and relocation plan for this species prior to issuance of grading permits.~~

Agricultural Residential Cluster Subdivision B-5(~~d~~c)

Protective Fencing. ~~The applicant shall identify the limits of road construction and lot development, and a~~ **A** qualified biologist shall oversee the installation of temporary fencing around ~~the remaining Valley Needlegrass Grassland~~ habitat containing the San Luis Obispo mariposa lily and/or San Luis Obispo County morning glory occurrences~~,~~ prior to any construction activities in the vicinity ~~including ground disturbance or site grading~~. Protective fencing shall remain in place throughout construction activities.

Plan Requirements and Timing. Fencing shall be installed prior to ~~issuance of~~ **the start of** grading **activities** ~~permits~~.
Monitoring. Planning and Building shall ~~verify compliance prior to issuance of grading permits and~~ site inspect during construction for compliance.

~~**Agricultural Residential Cluster Subdivision B-5(e)**~~

~~**Worker Education Program.** Before any grading or construction activities commence, all construction personnel associated with the Agricultural Residential Cluster Subdivision shall attend a worker education program regarding the San Luis Obispo mariposa lily, San Luis Obispo County morning glory, vernal pool fairy shrimp, southern steelhead **South/Central California Coast Steelhead**, California red-legged frog, and other special-status plant and animal species occurrences on-site. The specifics of this program shall include identification of the **special status** plants and animals and their habitat, and careful review of the limits of construction required to reduce impacts to this **these** species. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the Agricultural Residential Cluster Subdivision. Planning and Building shall be notified of the time that the applicant intends to hold this meeting.~~

~~**Plan Requirements and Timing.** Prior to final map clearance, the applicant shall draft a notice indicating the above information, to be recorded with the final map, subject to approval by Planning and Building. **Monitoring.** Planning and Building shall check plans for compliance.~~

Residual Impacts. The implementation of the above mitigation measures would reduce impacts to a less than significant level.

Agricultural Residential Cluster Subdivision Impact B-6	**The proposed Agricultural Residential Cluster Subdivision could result in a direct take of the ~~F~~federally ~~T~~threatened Vernal Pool Fairy Shrimp through grading activities for the proposed development, and sediment runoff into seasonal pools. This potential impact is Class II, *significant but mitigable*.**

All seasonal pools are potentially suitable habitat for the Vernal Pool Fairy Shrimp (VPFS). All of the seasonal pools on the Agricultural Residential Cluster Subdivision site are situated within low gradient ephemeral drainages and/or wetland habitats. **Thomas (2003) conducted wet-season VPFS surveys at 19 sites in 2003, but because these surveys were conducted within more than the 14-day requirement following pool filling, they were not considered to meet USFWS (1996) protocol requirements.** ~~The development of residential lots and associated roads will directly impact Seasonal Pool 2 (SP 2) through road construction and indirectly impact SP 1, SP 3, and SP 7 through grading activities.~~ The habitat assessment for the VPFS determined that potentially suitable VPFS habitat was present within SP 1**, 2, 3, 4, 5, 6, and** ~~-~~7 (Rincon Consultants, 2006**a**). Following **this** initial assessment ~~of SP 1-7~~, **one season of** USFWS protocol wet season surveys for VPFS ~~were~~ **was** conducted **in 2005/2006**. No VPFS were observed during wet season survey efforts within SP 1, 2, 3, 4, 5, 6, or 7 **(Rincon Consultants, 2006b)**. However, in accordance with **the** USFWS **(1996)** survey protocol, a consecutive dry season survey must **have** be**en** performed **within the same year** following the first ~~(2005-2006)~~ wet season survey**,** or a second wet season survey shall be performed within 5 years of the first wet season survey to conclusively determine the presence or absence of VPFS. The second wet season survey would ~~have~~ **need** to be conducted during or before the 2010-2011 rain year. A wet season survey was conducted in lieu of the dry season survey because the EIR environmental review process was initiated during winter, in the wet season. Furthermore, branchiopod species are more accurately determined during wet season survey than the dry season surveys where identification of fairy shrimp cyst (eggs) below the genus level is difficult and inconclusive. **Because a second protocol wet season survey has not been performed to date, and since the period has expired in which a dry season survey could have been performed following the protocol wet season survey, the VPFS surveys remain inconclusive and VPFS can be presumed present at all suitable habitats. The development of residential lots and associated roads will directly impact Seasonal Pool 2 (SP 2) through road construction and indirectly impact SP 1, SP 3, and SP 7 through grading activities.**

Impacts to seasonal pools primarily consist of sedimentation from grading activities associated with lot and road construction, and long-term changes in hydrology and water quality. The development of Lots 29 through 35 and construction of the proposed access road to these lots would indirectly impact SP 1; the development of Lots 87, 88, 92, and 93 and construction of the

access road to these lots would indirectly impact SP 3; the development of lots 99 through 109 and construction of the access road to these lots would directly impact SP 2; and, the installation of a pipeline within the 100 foot fee title right-of-away for pipeline purposes will impact SP 7.

Mitigation Measures. The following mitigation measures are required to conclusively determine the presence or absence of VPFS within the on-site seasonal pools and reduce impacts to VPFS to a less than significant level, if present:

Agricultural Residential Cluster Subdivision B-6(a)

VPFS Presence/Absence Determination. Prior to issuance of Grading Permits, a USFWS protocol ~~dry~~ **wet** season survey shall be conducted **prior to 2010/2011** by **a** qualified and federally permitted biologist to complete protocol survey ~~efforts~~ **requirements** to conclusively determine the presence or absence of VPFS within the Agricultural Residential Cluster Subdivision site. The ~~dry~~ **wet** season survey shall include ~~the collection of soil from~~ **surveys of** SP 1, 2, 3, 4, 5, 6, and 7 ~~and a cyst analysis as~~ per the USFWS **(**1996**)** guidelines. A ~~90-Day~~ report consistent with current federal reporting guidelines shall be prepared to document the methods and results of surveys. Should the presence of VPFS or additional special-status wildlife species be determined, a map identifying locations in which these species were found shall be prepared and included in the report.

If the surveys produce a negative finding for the presence of VPFS, then no further mitigation would be required. If VPFS are identified within SP 1, 2, 3, 4, 5, 6, or 7**,** then ~~mitigation~~ **Agricultural Residential Cluster Subdivision** measure B-6(b) would be required.

Plan Requirements and Timing. The applicant shall hire a USFWS**-**permitted biologist to conduct a dry season survey and prepare a final report of findings. A copy of the biologist's federal permit shall be submitted to Planning and Building before the surveys are initiated. Survey results shall be submitted to the USFWS and Planning and Building prior to issuance of Grading Permits. **Monitoring.** Planning and Building shall verify completion of the surveys and coordination with USFWS prior to approval of Grading Permits.

Agricultural Residential Cluster Subdivision B-6(b)

~~**FESA Consultation and**~~ **Mitigation** ~~**Regarding**~~ **for VPFS.** This measure shall only apply if VPFS are identified during USFWS protocol surveys.

~~The applicant shall coordinate with the USFWS and ACOE and shall undertake consultation pursuant to Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the Federal Endangered Species Act (FESA), as applicable. This consultation may necessitate the issuance of a USFWS Biological Opinion~~

~~and/or the preparation of a Habitat Conservation Plan for VPFS and their habitat.~~ The applicant shall implement measures that minimize the Agricultural Residential Cluster Subdivision adverse effects on VPFS. Subject to concurrence by and coordination with USFWS, required measures may include the following:

- **Avoidance of occupied habitats and a three hundred-foot setback from occupied habitats; and**
- **Where avoidance is not possible, compensatory mitigation for impacts to occupied habitats at a 3:1 ratio, and impacts to potentially suitable habitats in which VPFS were not found at a 2:1 ratio.**

~~Suitable setbacks shall be developed in conjunction with the USFWS to avoid take of a federally listed species. If complete avoidance is not economically or technically feasible, then an incidental take permit for the VPFS through either Section 7 or Section 10 of the FESA will be required to reduce impacts to this species to a less than significant level.~~

~~The compensatory mitigation ratio shall be determined by the USFWS. Suitable replacement habitat will be identified by a VPFS mitigation plan.~~ A USFWS permitted biologist familiar with VPFS habitat "creation" techniques shall review VPFS **compensatory** mitigation areas. Enhancement of the on-site vernal pool/wetland habitat that is undisturbed by Agricultural Residential Cluster Subdivision may also be a part of the mitigation program for any impacted VPFS **habitats**. ~~In consultation with~~ **Upon approval from the** USFWS**,** an appropriate salvage and relocation method**ology** will be selected that will include the following:

- Shrimp cysts shall be collected during the dry season from the existing habitat and placed into storage**;**
- Topsoil shall also be removed and stored ~~in~~**under** conditions suitable to retain cysts**,** and used as a top dressing for created vernal pools as proposed in the VPFS mitigation plan**;**
- If topsoil is not used, preserved cysts would be added to the recreated vernal pool/wetlands in December or January, after sufficient pooling has occurred.

~~The applicant shall coordinate with USFWS, and other resource agencies as applicable. The applicant shall present written confirmation from USFWS that the Agricultural Residential Cluster Subdivision complies with the applicable requirements of FESA.~~

Plan Requirements and Timing. Prior to approval of Grading Permits for the Agricultural Residential Cluster Subdivision, the applicant shall coordinate with USFWS, and the ACOE if necessary. The applicant shall present written confirmation from USFWS that the project complies with the applicable requirements of FESA. During construction, the biologist shall submit a report to the County detailing the results of the monitoring. **Monitoring.** Planning and Building staff shall verify that ~~USFWS has granted Section 7 and/or Section 10 permits for~~ the Agricultural Residential Cluster Subdivision **development plan is in compliance with the federal Endangered Species Act**. Planning and Building shall review monitoring reports and site inspect during construction for compliance.

Residual Impacts. Implementation of the above mitigation measures in concert with Agricultural Residential Cluster Subdivision measures B-4(a) (Wetland and Riparian Protection), B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) and B-9(b) (Southwestern Pond Turtle Avoidance, Capture and Relocation) would reduce impacts to VPFS to a less than significant level. ~~A requirement of FESA is that any such take shall not jeopardize the continued existence of the listed species. Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project,~~ **Therefore,** the impact to VPFS is Class II, *significant but mitigable.*

Agricultural Residential Cluster Subdivision Impact B-7	**The proposed Agricultural Residential Cluster Subdivision could result in a direct take of the ~~F~~federally ~~T~~threatened ~~southern steelhead~~ South/Central California Coast Steelhead and/or the loss of Federally designated ~~SS~~ Steelhead Critical Habitat through grading activities for the proposed development, and sedimentation of occupied creeks. This potential impact is Class II, *significant but mitigable.***

The federally threatened ~~southern steelhead (SS)~~ **South/Central California Coast Steelhead (Steelhead)** is known to occur within the on-site portion of Trout Creek (Thomson and Larsen, unpublished data). Trout Creek is located within the upper Salinas River watershed and is a tributary to Santa Margarita Creek, which converges with the Salinas River northeast of the project site. The Salinas River enters the Pacific Ocean approximately 150 miles north near the City of Monterey. Santa Margarita Creek and the Salinas River are **S~~s~~**teelhead**-**occupied streams (Mike Hill **[**CDFG**]**, personal communication~~;, and~~ **NMFS** ~~NOAA Fisheries~~, 2005). In addition, all of these waterways are within ~~SS~~ **Steelhead** Critical Habitat (~~NOAA Fisheries~~ **NMFS**, 2005). Within the Agricultural Residential Cluster Subdivision site, ~~SS~~ **Steelhead** are likely to occupy Trout Creek during moderate to high flow periods in average to above average rain years (**Mike Hill [**CDFG**]**, pers**onal** comm**unication**). The on-site portion of Trout Creek has exceptional breeding and migratory habitat consisting of rounded gravel to cobble bed substrate, tree snags, overhanging banks, and moderate to deep pools suitable for ~~SS~~ **Steelhead**

spawning. **Steelhead potentially could occur in Tostada Creek during periods when conditions are suitable.** ~~Sedimentation from grading and other construction activities could potentially bury and suffocate eggs and fry and clog the gills of juvenile and adult~~ ~~SS~~.

Impacts from development of the proposed Agricultural Residential Cluster Subdivision would occur to ~~SS~~ **Steelhead** from construction of proposed lots and roads and associated sedimentation in ~~SS~~ **Steelhead** creeks. Habitat degradation caused by sediment entering Trout and Tostada Creeks during grading activities may result in the loss of suitable spawning pools and reduction in abundance and diversity of prey. **Sedimentation from grading and other construction activities could potentially bury and suffocate eggs and fry, and clog the gills of juvenile and adult Steelhead**.

Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect this species, depending on final designs.

It should be noted that, as discussed in Section 4.14 (*Water and Wastewater*) of this EIR, water demand from the proposed Agricultural Residential Cluster Subdivision may contribute to overdraft of the aquifer system. Agricultural Residential Cluster Subdivision measure W-1(c) (Imported Water Supply) requires that the applicant acquire imported water supply to serve the Agricultural Residential Cluster Subdivision. Due to uncertainty regarding timing and availability of these sources, this impact is *significant and unavoidable*. Although this is a Class I impact, the applicant is required to obtain imported water prior to implementation of the Agricultural Residential Cluster Subdivision, and development could not occur without adequate water supply. As a result, water use to serve the proposed Agricultural Residential Cluster Subdivision would not reduce stream flow or water supply available for riparian vegetation and ~~SS~~ **Steelhead** migration and breeding habitats.

Mitigation Measures. The following mitigation measures are required to reduce impacts caused by development of the Agricultural Residential Cluster Subdivision to the ~~SS~~ **Steelhead** to a ~~level~~ **less** than significant level:

Agricultural Residential Cluster Subdivision B-7(a)	~~SS~~ **South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and Protection Plan.** ~~SS has~~ **Steelhead have** been identified on-site and setbacks from their identified ~~critical~~ habitat shall be implemented to avoid **or minimize impacts to** ~~take of~~ ~~a~~ **this** federally listed species **and its habitat**. Prior to development, a ~~NOAA Fisheries-approved SS~~ **Steelhead** Protection Plan shall be prepared by a qualified ~~s~~**S**teelhead biologist to protect ~~SS~~ **Steelhead** within ~~all~~ **the** on-site ~~tributaries to the Salinas River including~~ **portions of** Trout and Tostada Creek**s**. The plan shall include, but not be limited to the following: • A ~~100~~ **200** foot **permanent** buffer from the top of bank of Trout **and Tostada** Creek**s** and 50 foot buffer or minimum setback ~~determined by NOAA~~ from ephemeral drainages **that are tributaries to Trout Creek**~~, and wetlands~~ shall be established and ~~protected to~~ **maintained in perpetuity**.

In the short term, this buffer will ensure construction activities do not increase the erosion potential in the area or facilitate construction related sediment from entering the creek. The buffer shall be demarcated with highly visible construction fencing for the benefit of contractors and equipment operators. **In the long term, this buffer will minimize impacts to riparian habitats that are critical for Steelhead, and reduce the amount of sediment and pollutant runoff that would enter these waterways. Roadways, grading, landscaping, structures and other types of disturbance shall be prohibited within these buffer areas, with the exception of road crossings, as detailed below.**

- **Road crossings of Trout and Tostada Creeks are allowable (if permitted by the appropriate agencies) if the following measures are implemented. The crossings must be designed following the NMFS Southwest Region's (2001) Guidelines for Salmonid Passage at Stream Crossings [http://swr.nmfs.noaa.gov/hcd/MNFSSCG.PDF]. Clear-span structures are recommended. Areas of temporary disturbance resulting from the construction or improvements to road crossings shall be restored using native vegetation at a minimum of 2:1 (area restored:area temporarily impacted). However, agency permitting for impacts to riparian and/or wetland resources may require a higher ratio. Additional details required for riparian restoration are contained within measure B-4(a).**
- The applicant shall prepare and submit for approval to the County a sediment and erosion control plan that specifically seeks to protect waters and riparian woodland resources adjacent to construction site. Erosion control measures shall be implemented to prevent runoff into Trout and Tostada Creeks, ephemeral drainages, and wetlands. Silt fencing, straw bales, and/or sand bags shall be used in conjunction with other methods to prevent erosion and sedimentation of the stream channel. The plan shall specify locations and types of erosion and sediment control structures and materials that would be used on-site during construction activities. The plan shall also describe how any and all pollutants originating from construction equipment would be collected and disposed.
- During construction activities, washing of concrete, paint, or equipment shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Washing will not be allowed in locations where the tainted water could affect sensitive

biological resources.

The applicant shall coordinate with the NOAA National Marine Fisheries Service and ACOE, and shall demonstrate compliance with Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the federal Endangered Species Act (FESA), as applicable. This consultation may necessitate the issuance of a NMFS Biological Opinion and/or the preparation of a Habitat Conservation Plan for Steelhead and their habitat. The applicant shall also coordinate with CDFG and other resource agencies, as applicable. The applicant shall implement all measures prescribed by these agencies.

Plan Requirements and Timing. Prior to issuance of Grading Permits, the ~~SS~~ **Steelhead ~~p~~P**rotection ~~p~~**P**lan shall be prepared by a qualified biologist and submitted to ~~NOAA Fisheries~~ **NMFS** and Planning and Building for review. The plan shall be implemented prior to issuance of grading permits. **Monitoring.** Planning and Building shall review plans in consultation with ~~NOAA Fisheries~~ **NMFS**, and site inspect during construction for compliance.

~~**Agricultural Residential Cluster Subdivision B-7(b)**~~

~~**FESA Consultation and Mitigation Regarding** for**SS**. This measure shall only apply if avoidance of SS streams, as described in Agricultural Residential Cluster Subdivision measure B-7(a) (SS Protection Plan is not feasible.~~

~~The applicant shall coordinate with the NOAA and ACOE, and shall undertake consultation pursuant to **demonstrate compliance with** Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the F**f**ederal Endangered Species Act (FESA), as applicable. This consultation may necessitate the issuance of a NOAA Biological Opinion and/or the preparation of a Habitat Conservation Plan for SS and their habitat. The applicant shall coordinate with NOAA Fisheries, CDFG, and other resource agencies as applicable. The applicant shall implement measures that minimize the Agricultural Residential Cluster Subdivision adverse effects on SS. Subject to concurrence by and coordination with USFWS, required measures may include the following: permanent development and disturbance buffers from SS streams. , compensatory mitigation at a ratio determined by USFWS, implementation of replacement habitat, and/or enhancement of existing habitat.~~

~~**Plan Requirements and Timing**. Prior to approval of Grading Permits, the applicant shall coordinate with NOAA Fisheries, and ACOE and CDFG as applicable. The applicant shall present written confirmation from USFWS that the project complies with the applicable requirements of FESA prior to issuance of Grading~~

~~Permits. **Monitoring**. Planning and Building staff shall verify that NOAA has granted Section 7 and/or Section 10 permits for the project.~~

Residual Impacts. Implementation of the above mitigation measures in concert with Agricultural Residential Cluster Subdivision measures B-4(a) (Wetland and Riparian Protection) and B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) **and those resulting from compliance with the FESA** would reduce impacts to ~~SS~~ **Steelhead** to a less than significant level. ~~A requirement of FESA is that any such take shall not jeopardize the continued existence of the listed species. Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project,~~ **Therefore,** the impact to ~~SS~~ **Steelhead** is Class II, *significant but mitigable*.

Agricultural Residential Cluster Subdivision Impact B-8	**The proposed Agricultural Residential Cluster Subdivision would result in take of the ~~F~~federally ~~T~~threatened California red-legged frog through grading activities for the proposed development, and would fragment the amount of available habitat potentially used for movement and dispersal. This potential impact is Class II, *significant but mitigable*.**

Several federally threatened California red-legged frogs (CRLF) were observed **during the 2002-2003 inventory efforts and concurrent incidental sightings** within Trout, ~~Tostada,~~ **Taco,** and Yerba Buena Creeks and ~~an upstream pool~~ in **an agricultural pond midway between** Taco Creek **and Trout Creek**. **CRLF tadpoles were observed in the agricultural pond.** ~~CRLF of all age classes (eggs, tadpoles, and adults) were observed in~~ **the agricultural pond and** ~~Yerba Buena and Taco Creeks. Only one adult CRLF was observed in Tostada Creek. Many of these occurrences were documented during inventory efforts between 2002 and 2003. These aquatic features are expected to still be occupied by CRLF.~~ **In 2006,** Rincon Consultants **surveyed** a segment of Trout Creek **in which CRLF had not previously been identified** ~~not previously occupied~~ and ~~another in~~ the eastern portion of Tostada Creek near its confluence with Trout Creek. **Adult CRLF were found in both of these locations.** Movement of CRLF, especially breeding season movement and dispersal, likely occurs between Trout, Tostada, and Yerba Buena Creeks. **They also likely occur at the irrigation reservoirs, stock ponds and some of the seasonal ponds (i.e., especially SP2) when sufficient water is present.** CRLF-occupied ~~creeks~~ **aquatic habitats** and upland areas between aquatic features would be directly and indirectly impacted by development of the proposed Agricultural Residential Cluster Subdivision. Since CRLF dispersal patterns can occur over a variety of topographic features, CRLF could potentially use any of the proposed development area for movement activities. The Agricultural Residential Cluster Subdivision site does not occur within CRLF Critical Habitat (~~April~~ **USFWS,** 200~~5~~**6**).

Long-term impacts from development of the proposed Agricultural Residential Cluster Subdivision would occur to CRLF from construction of roads and residential uses within the proposed lots. Construction activities could block movement or dispersal of CRLF and result in the death or injury of CRLF by vehicles and heavy equipment. Other long-term impacts are discussed below. Primarily, impacts include direct take and reduced water quality. The CRLF

occurrence within Tostada Creek would be impacted by the development of Lots 1, 43, 21, and 83 and Road A. The CRLF occurrence within Trout Creek would be impacted during construction of Lots 87 through 114 and Road D. Indirect impacts to CRLF due to development of the proposed Agricultural Residential Cluster Subdivision include:

- Disturbances due to the presence of humans and associated domestic pets, light, and noise;
- Changes in water quality and in stream pool longevity in occupied or dispersal areas; and,
- Potential for introduction of exotic species and predators.

Long-term impacts related to human presence and associated light, noise and pets may include disruption of foraging, sleeping patterns, habitat use patterns, dispersal, and breeding behavior and displacement of individuals. Nocturnal species, such as the CRLF, that rely on darkness to hunt or evade predators would experience adverse effects from lighting. If domestic pets harass CRLF during breeding, CRLF may abandon their attempt to breed. Domestic pets may dislodge CRLF eggs from vegetation in breeding pools or may cause siltation from trespass in and around pools. In addition, domestic pets may harass or kill dispersing CRLF. The impact to CRLF and its resources arising from long-term, human presence are significant.

The uplands adjacent to and between aquatic sites help maintain the integrity of aquatic sites by protecting them from disturbance and supporting the normal functions of aquatic habitat (USFWS March 2001b). Un-fragmented uplands also provide important dispersal areas between breeding sites. The proposed lot and road configuration could create a barrier to CRLF movement through the site. New roadways could also result in the long-term loss of individuals from automobiles.

Amphibians, in general, typically have complex life cycles and thus more opportunity for exposure to chemicals and more potential routes of exposure than other vertebrates (USFWS January 2000). Agricultural Residential Cluster Subdivision development will introduce chemicals, minerals, and sediment on-site that may act as pollutants to CRLF and its terrestrial and aquatic habitat. Construction of the proposed Agricultural Residential Cluster Subdivision could result in the runoff of sedimentation and other pollutants that would affect local drainages. However, implementation of BMPs, as required under the RWQCB National Permit Discharge Elimination Systems (NPDES) regulations (refer to *Section 4.14: Water and Wastewater*) and Water Quality Certification 401 permit regulations [refer to Agricultural Residential Cluster Subdivision measure B-4(a) (Wetland and Riparian Protection)], would reduce impacts to water quality within CRLF habitat.

The introduction of non-native animals would increase predation of CRLF or act as competitors with CRLF for available resources. Non-native plant species have the potential of displacing native riparian and wetland CRLF habitat. Raccoons and bullfrogs currently exist in the Agricultural Residential Cluster Subdivision area and are known predators of CRLF. These predators would persist with development, as they are tolerant of urban uses and in the case of bullfrogs often out-compete CRLF for resources and habitat. Residential uses near CRLF breeding areas and throughout the site may encourage the presence of raccoons by the introduction of easily accessible food, such as human trash and pet food. Therefore, Agricultural Residential Cluster Subdivision development may increase the presence of

predatory raccoons resulting in significant impacts on CRLF. Bullfrogs already have an extensive presence within the project site. Any impacts to CRLF and its habitat would allow further occupation of bullfrogs during rain season dispersal activities and risk local extinction of CRLF within Santa Margarita Ranch. As previously stated, domestic dogs and cats may harass or act as predators causing CRLF to flee the area or may cause direct mortality.
Direct impacts to CRLF would most likely occur in wetland and riparian areas; however, individuals could be injured or killed in upland portions of the Agricultural Residential Cluster Subdivision area during construction because CRLF are known to move across otherwise unsuitable habitat during the rainy season while dispersing or looking for breeding areas. In addition, grading activities for the proposed Agricultural Residential Cluster Subdivision would increase the risk of direct mortality to dispersing CRLF via accidents with automobiles or construction equipment. Construction of the proposed Tostada Road creek crossings would directly impact CRLF aquatic habitat.

Vegetation clearing and earth moving activities associated with site preparation for the proposed Agricultural Residential Cluster Subdivision has the potential to disturb ground-dwelling species, including CRLF. CRLF may experience displacement if present in upland areas during construction activities and may experience direct mortality due to grading. Grading and the exposure of soils during construction activities could result in the transport of sediment to Tostada, Trout, and Taco Creek resulting in impacts to CRLF.

Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect this species, depending on final designs.

Mitigation Measures. If feasible, the applicant should avoid known CRLF breeding sites and potential movement corridors. The proposed project design would not avoid impacts to CRLF and its habitat. If avoidance cannot be achieved, the following mitigation measure is required to reduce direct and indirect impacts on the CRLF:

Agricultural Residential Cluster Subdivision B-8(a)	~~**FESA Consultation**~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**. ~~The applicant shall coordinate with the USFWS/NOAA and ACOE and shall undertake consultation pursuant to Section 7 (federal nexus) and/or Section 10 (no federal nexus) of the Federal Endangered Species Act (FESA), as applicable. Please see Agricultural Residential Cluster Subdivision measure B-7(a) for NOAA consultation requirements regarding the SS. This consultation may necessitate the issuance of a USFWS Biological Opinion and/or the preparation of a Habitat Conservation Plan for CRLF and their habitat. The applicant shall provide a copy of any Incidental Take authorization to the County and implement measures required by the USFWS that minimize the Agricultural Residential Cluster Subdivision project's adverse effects on CRLF.~~ Subject to concurrence by and coordination with **the** USFWS, required measures ~~may~~ **shall** include the following: • At least 45 days prior to the onset of activities, the applicant shall submit the name(s) and credentials of

biologists who would conduct activities specified in the following measures. No project activities shall begin until proponents have received written approval from the USFWS that the biologist(s) is qualified to conduct the work.

- A USFWS-approved biologist shall survey the work site **and suitable habitat within 330 feet of work sites** two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, ~~the approved biologist shall contact USFWS to determine if moving any of these life-stages is appropriate or proceed according to the Biological Opinion for this species~~ **relocations shall be conducted only if authorized by the USFWS.** ~~In making this determination, USFWS shall consider if an appropriate relocation site exists.~~ If USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of CRLF. All conditions ~~of the Biological Opinion~~ **specified by the USFWS exemption or authorization** shall be implemented regarding relocation of this species.

- **If CRLF are found during the preconstruction surveys within 330 feet of any work area, and for any areas already known to be occupied by CRLF, work within 330 foot of these habitats must be limited to the period between April 30 to July 30 *or* the work area must be surrounded by exclusionary fencing to reduce impacts to frogs that are in upland areas during the rainy season or juvenile dispersal. The exclusionary fencing shall be at least three feet high and keyed into the ground, made of solid mesh (such as silt fence; orange construction fence is not suitable) and shall be maintained throughout the construction period. This fencing can also function for erosion and sedimentation control. An approved biologist must survey the project limits for CRLF each morning prior to the start of work. Any CRLF found within the work area shall be relocated, if authorized by the USFWS. If relocations are not authorized by the USFWS, the fence shall be modified to allow the frog to pass through to suitable habitat, and work shall not commence until it has left.**

- Before any construction activities begin on the Agricultural Residential Cluster Subdivision, a USFWS-approved biologist shall conduct a training session for all

construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- A USFWS-approved biologist shall be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee shall designate a person to monitor the on-site compliance with all minimization measures. The USFWS approved biologist shall ensure that this individual receives training outlined above and in the identification of CRLF. The monitor and the USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by USFWS during review of the proposed action. If work is stopped, USFWS, and the ACOE as applicable, shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.

- During project activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from the work areas.

- All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 100 feet from any riparian habitat or water body. The permittee, and ACOE as applicable, shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the permittee shall prepare and comply with a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- A USFWS-approved biologist shall ensure that the spread or introduction of invasive non-native plant and animal species, especially bullfrogs shall be avoided to the maximum extent possible. Invasive exotic plants and animals in the development shall be removed and

destroyed.

- Agricultural Residential Cluster Subdivision riparian and wetland areas shall be revegetated with an appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan shall be included with the project proposal for review and approval by USFWS, and the ACOE as applicable. Such a plan must include, but not be limited to: location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

- Stream contours shall be returned to their original condition at the end of project activities, unless consultation with USFWS has determined that it is not beneficial to the species or feasible.

- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary for development. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas. Where impacts occur in these staging areas and access routes, restoration shall occur as identified in the above measures.

- ~~To minimize the potential for direct impacts to dispersing individuals, work activities shall be completed in the dry season, between April 1 and November 1.~~

- ~~Establishment of permanent disturbance buffers, including landscaping prohibitions,~~ **A 200 foot permanent buffer (from the edge of the high water line for ponds, or from the top of bank on either side of creeks) shall be established and maintained in perpetuity** around water bodies with confirmed occurrences of CRLF. **This includes the lengths of Trout, Tostada, and Yerba Buena Creeks; an upstream pool in Taco Creek; and any stock ponds that may contain CRLF. In the short term, this buffer will ensure construction activities do not increase the erosion potential in the area or facilitate construction related sediment from entering the creeks. The buffer shall be demarcated with highly visible construction fencing for the benefit of contractors and equipment operators. In the long term, this buffer will minimize impacts to**

riparian and emergent wetland habitats that are critical for upland habitat use by CRLF, and reduce the amount of sediment and pollutant runoff that would enter these waterways. Roadways, grading, landscaping, structures and other types of disturbance shall be prohibited within these buffer areas. Road crossings of these streams are allowable (if permitted by the appropriate agencies) following the measures listed above. Permanent buffer areas shall be demarcated with a type of fencing that would prohibit vehicular and livestock access, discourage use by humans, but allow access by wildlife. An example of fencing that could meet these requirements is welded pipe fence such as the type that exists at the entrance of the Agricultural Residential Cluster Subdivision.

- **Areas of temporary disturbance resulting from the construction or improvements to road crossings shall be restored using native vegetation at a minimum of 2:1 (area restored to area temporarily impacted). However, agency permitting for impacts to riparian and/or wetland resources may require a higher ratio. Additional details required for the riparian restoration plan are contained within measure B-4(a).**

- Restrictions on the use of pesticides near water bodies with confirmed occurrences of CRLF.

- ~~Inadvertent Take procedures, including USFWS notification requirements.~~

Plan Requirements and Timing. Prior to approval of Grading Permits for the Agricultural Residential Cluster Subdivision, the applicant shall coordinate with USFWS, and the ACOE if necessary. The applicant shall present written confirmation from USFWS that the project complies with the applicable requirements of **the** FESA. During construction, the biologist shall submit a report to the County detailing the results of the monitoring. **Monitoring.** ~~Planning and Building staff shall verify that USFWS has granted Section 7 and/or Section 10 permits for the Agricultural Residential Cluster Subdivision.~~ Planning and Building shall **confirm compliance with the FESA,** review monitoring reports**,** and inspect site during construction for compliance.

Residual Impacts. ~~A Biological Opinion and/or preparation of an approved Habitat Conservation Plan is required to authorize the potential incidental take of the CRLF pursuant to FESA. A requirement of FESA is that any such take shall not jeopardize the continued existence of CRLF. Since the FESA incidental take permitting approval process requires implementation~~

~~of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project~~, **Implementation of the above mitigation measure and those required as a result of FESA compliance would reduce impacts to the CRLF to a less than significant level. Therefore,** the impact to CRLF is Class II, *significant but mitigable*.

Agricultural Residential Cluster Subdivision Impact B-9	**The proposed Agricultural Residential Cluster Subdivision would directly and indirectly reduce the populations and available habitat for wildlife in general, including special-status wildlife species. Because of the size of the site, degree of habitat diversity, and known or potential presence of a number of special-status wildlife species on-site, the loss of wildlife habitat is a Class II, *significant but mitigable*, impact**.

Potential long-term impacts to wildlife are related to the long term loss of substantial acreage of habitats, the barrier effect caused by the development, and constant human presence. Specific impacts include the loss and disruption of foraging and breeding habitat, reduction in continuous habitat or wildlife corridors, disruption of wildlife movements, displacement of individuals, and night lighting and increased noise.

Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect habitat for wildlife, depending on final designs.

Impacts to Wildlife in General. The vegetation changes associated with the Agricultural Residential Cluster Subdivision project development would reduce the acreage of the vegetation and would change the ability of the on-site plant communities to support wildlife populations, including special-status species. In addition to the direct loss of habitat, development would likely result in increased mortality to species that continue to utilize the site after development due to domestic and feral animal predation and collecting, as well as attrition of important prey resources for wildlife in the remaining habitat.

A wide variety of wildlife species could be adversely affected by the presence of lights from the proposed development. Nocturnal species that rely on darkness to hunt or evade predators would be impacted, including owls, nighthawks and rodents. Certain species of aerial-foraging bats may ~~be helped by~~ **benefit from** night lighting because of **the** attraction ~~to~~ **of their** prey ~~items such as flying insects~~ **to lights**.

Impacts to Special-Status Wildlife. The special-status species listed in Table 4.3-3 that are present within the Agricultural Residential Cluster Subdivision project site are likely to be impacted by direct and indirect activities associated with implementation of the proposed Agricultural Residential Cluster Subdivision. Development activities may impact aquatic species such as ~~southern steelhead~~ **South/Central California Coast Steelhead** and its designated critical habitat within Trout Creek. Similarly, CRLF breeding and dispersal/movement corridors within Trout and Tostada Creeks and upland areas through the site would be affected as would southwestern pond turtle's breeding pools (seasonal pools and in stream pools) and dispersal corridors. **The western spadefoot has not been documented on the Agricultural Residential Subdivision site. However, because suitable habitat exists, they are known to occur on other portions of the Ranch, and they are difficult to detect, it is**

possible that they may occur on the site. Southwest**ern** pond turtles were observed during survey efforts in seasonal pool**s** 2 and 6 and within Trout and Yerba Buena Creek. **Impacts to these species would include potential loss of aquatic and upland habitat and decreased dispersal.** The development will reduce habitat for terrestrial special-status reptile species including the coast horned lizard and silvery legless lizard**.** ~~and~~ **The project will also impact** numerous bird species and **their** habitat**,** including ~~raptor~~ foraging~~/~~ **and** nesting habitat including ~~the~~ **for** Fully Protected **species such as the** white-tailed kite and golden eagle**, as well as birds protected under the Migratory Bird Treaty Act**. The proposed Agricultural Residential Cluster Subdivision would also result in potential impacts to **special-status mammal species such as the** American badger**,**~~s and the~~ pallid bat and Townsend's big-eared bat ~~foraging and potentially breeding habitat~~. The development ~~will~~ **would** directly impact the American badger by reducing ~~known~~ breeding and foraging habitat**,** and indirectly ~~impact this shy animal species~~ through house lighting, domesticated pets, and an increase in traffic. The use of ~~rodent specific pesticides~~ **rodenticides** may also directly kill this species through consumption of poisoned mammalian prey. The removal of oak trees, especially aging or older valley and blue oak trees, would reduce roosting habitat for the pallid bat, and the conversion of on-site habitat to development would reduce foraging habitat for the pallid and Townsend's big-eared bat. The development area does not currently contain roosting sites (limestone caves, lava tubes, mine tunnels, buildings, or other human-made structures~~; Williams, 1986~~) for the Townsend's big-eared bat.

Impacts to Wildlife Movement~~ Barriers~~. **The construction of new** ~~R~~roads and residential ~~clusters~~ **development** would fragment habitat patches**,** thereby **negatively** affecting wildlife movement~~s~~. **These types of** ~~B~~**b**arriers to movement **have** ~~are disproportionately~~ greater **impacts** for small-sized **and less-mobile** animals, but even large mammal movements ~~are~~ **can be** affected by ~~these features~~ **development at this scale**. ~~Most of the i~~**I**mpacts to larger animals **can** result~~s~~ in re-adjustment of home ranges, breeding territories, and foraging habits in response to changes in prey movements. ~~Studies of small mammal movements have shown that t~~**T**he presence of roadways would introduce a source of mortality not currently present on the site~~, i.e., wildlife-vehicle interactions~~. Impacts to potential CRLF movement corridors are addressed in Agricultural Residential Cluster Subdivision Impact B-8~~(a)~~ above.

Impacts Related to Invasive Non-Native Species. **Development of the** Agricultural Residential Cluster Subdivision would ~~intentionally and unintentionally~~ **result in the** introduc**tion**~~e~~ or maint**enance**~~ain~~ **of** non-native animals such as bullfrogs, house sparrows, European starlings, dogs, cats, Norway and black rats, house mice and horses to the Agricultural Residential Cluster Subdivision site. In addition, the proposed lot development for residential uses would intentionally and unintentionally introduce or maintain non-native invasive plants through landscaping of new residences/structures and streets. The introduction and/or continued presence of these species would directly and indirectly impact wildlife resources in several ways: 1) by out-competing native species for food; 2) predation; and 3) habitat alteration. Domestic animals, especially cats and dogs, ~~may predate nests, particularly for ground-dwelling special-status species such as the California horned lark that feed and/or nest on or near the ground~~ **can be major predators of many bird and small reptile species in residential areas**. Residential development may result in the spread of non-native plants through disturbance and escapes of ornamentals. This could potentially impact wildlife, including special-status species**,** due to loss of food resources and cover.

Impacts to Water Resources. Adverse effects on the water quality of Trout and Tostada Creeks, ephemeral drainages, and wetlands, both on-site and downstream from the Agricultural Residential Cluster Subdivision, could pose a risk to these habitats and the species that use them. Potential risk comes from the following sources: (a) fuels, hydraulic fluids, paints, solvents, and other chemicals; (b) increased sedimentation could occur during construction; (c) roadways would become point sources for runoff into nearby creeks; (d) additional pesticides, fertilizers, and herbicides would be introduced onto the site.

Because of the sensitivity of habitats associated with the oak woodland within the ephemeral drainages and riparian habitat within Trout and Tostada Creeks, as well as their connection to the Salinas River, the introduction of sediments, fuels, oils, solvents, pesticides, fertilizers, herbicides, and animal waste to these watercourses is a potentially significant impact. If not properly mitigated, these potential impacts could result in take of ~~F~~**f**ederally ~~T~~**t**hreatened ~~southern steelhead~~ **South/Central California Coast Steelhead**. Refer to Section 4.5, *Drainage, Erosion and Sedimentation*, of this EIR for further discussion of impacts and mitigation relating to water quality.

Mitigation Measures. Because of the potential for the Agricultural Residential Cluster Subdivision to cause impacts to wildlife in general, the following mitigation measures are required:

Agricultural Residential Cluster Subdivision B-9(a)

Legless and Horned Lizard Capture and Relocation. Immediately prior to the initiation of construction in the developable area, capture and relocation efforts shall be conducted for the silvery legless lizard and coast horned lizard. Designated areas in permanent open space shall be identified within the Agricultural Residential Cluster Subdivision site for release of captured legless lizards and coast horned lizards.

Surveys shall be conducted by a County approved biologist, and shall include the following minimum requirements:

- Raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed to a minimum depth of eight inches for the silvery legless lizard.

- In addition to raking, "coverboards" shall be used to capture silvery legless lizards and coast horned lizards. Coverboards can consist of untreated lumber, sheet metal, corrugated steel, or other flat material used to survey for reptiles and amphibians. Coverboards shall be placed flat on the ground and checked regularly in the survey areas. Coverboards shall be placed in the survey area a minimum of two weeks, but preferably at least four weeks, before surveys begin and will be checked once a week during raking surveys. Captured lizards will be placed immediately into containers containing sand or moist paper towels and released in designated release areas no more than three hours after capture.

- During all grading activities, a qualified biologist shall be on-site to recover any silvery legless lizards that may be excavated/unearthed with native material. The unearthed lizards shall be immediately relocated and released to the designated release area.

Plan Requirements and Timing: The applicant shall hire a County approved biologist and submit survey results prior to issuance of Grading Permits. Prior to issuance of grading permits, the biologist shall submit a report to the County detailing the results of the monitoring and if applicable, relocation efforts. **Monitoring**: Planning and Building shall review the survey report and site inspect during construction for compliance.

Agricultural Residential Cluster Subdivision B-9(b)

Southwestern Pond Turtle Avoidance, Capture and Relocation. A County approved biologist shall conduct spring surveys for this species before the onset of construction activities. The survey area shall include ponds located within the Agricultural Residential Cluster Subdivision site with ponded water as well as on-site drainage corridors. If any southwestern pond turtles are found within 1,000 feet of construction activities such as lot grading or road construction, the approved biologist shall contact CDFG to determine if moving any individuals is appropriate. If CDFG approves moving animals, the biologist shall be allowed sufficient time to move the animals from the work site before work activities begin. If CDFG does not recommend moving the animals, a 1,000 foot buffer from the pond, seasonal pool, in stream pools, and /or nesting site shall be implemented. No grading or other construction activities shall occur within the set buffer. Only the approved biologist shall participate in activities associated with the capture and handling of turtles. Agricultural Residential Cluster Subdivision measures B-4(a), B-6(b), and B-8(a) will also benefit this species. B-4(a) will reduce direct impacts (development), restore impacted areas, and reduce potential indirect impacts (sedimentation and concrete/oil runoff) into wetlands and riparian habitat used for breeding and foraging by the southwestern pond turtle. B-6(b) will provide ~~federal (USFWS)~~ protection to seasonal pool/wetland habitat that are occupied by the federally threatened VPFS and that may also be used by the SWPT and B-8(a) will provide federal protection to riparian and seasonal pool/wetland habitat that are occupied by the federally-threatened CRLF and that may also be used by the SWPT.

Plan Requirements and Timing: The applicant shall hire a County approved biologist and submit survey results prior to

issuance of Grading Permits. Prior to issuance of grading permits, the biologist shall submit a report to the County detailing the results of the monitoring and if applicable, relocation efforts. **Monitoring**: Planning and Building shall review the survey report and site inspect during construction for compliance.

Agricultural Residential Cluster Subdivision B-9(c)

Pre-~~C~~construction Bird Survey. To avoid impacts to nesting special-status bird species, namely the state Fully Protected white-tailed kite and golden eagle, the federally-threatened and ~~f~~**F**ully ~~p~~**P**rotected bald eagle, other special-status bird species listed in Table 4.3-4, and all birds protected under the Migratory Bird Treaty Act, the initial ground-disturbing activities and tree removal shall be limited to the time period between September 1 and February 15. If initial site disturbance, grading, and tree removal cannot be conducted during this time period, a pre-construction survey for active nests within the limits of grading shall be conducted by a qualified biologist at the site two weeks prior to any construction activities. ~~The *Protocol for Evaluating Bald Eagle Habitat and Populations in California Bald e**Eagle*~~ (Jackson ~~and Jennings, 2004) may be required by the USFWS, CDFG, and/or the County if bald eagle activity in the Santa Margarita area is observed in the winter prior to grading or other construction activities~~. All potential nest locations shall be searched by the biologist including, but not limited to grassland, chaparral, central coastal scrub, and oak woodlands. If active nests are located, all construction work must be conducted outside a buffer zone from the nests to be determined by a qualified biologist. No direct disturbance to nests shall occur until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to the start of construction in the buffer zone. **S**urveys following the *Protocol for Evaluating Bald Eagle Habitat and Populations in California Bald Eagle* (Jackson and Jennings, 2004) ~~may be~~ are also required.

Plan Requirements and Timing. Required surveys shall be completed by a qualified biologist prior to issuance of grading permits. If required, buffers shall be observed during construction. **Monitoring.** Planning and Building shall site inspect during construction of the development for compliance.

Agricultural Residential Cluster Subdivision B-9(d)

<u>American</u> Badger Avoidance. The mitigation measures below are recommended to determine whether badgers are present in the area prior to development and to prevent **American** badgers from becoming trapped in burrows during construction activities.

- A pre-construction survey for active **American** badger dens shall be conducted within one month of initial ground disturbance activities by a County qualified biologist. To avoid the potential direct take of adults and nursing young, no grading shall occur within 50 feet of an active badger den as determined by a County-approved biologist between March 1 and June 30.

  Construction activities during July 1 through March 1 shall comply with the following measures to avoid direct take of adult and weaned juvenile badgers:

- A County-approved biologist shall conduct a biological survey of the entire development area prior to the start of ground clearing or grading activity. The survey shall cover the entire area proposed for development. Surveys shall focus on both old and new den sites. If dens are too long to see the end, a fiber optic scope (or other acceptable method such as den characteristics) shall be used to assess the presence of badgers. If no fiber optic scope is available, occupation of the potential dens by badgers can be ascertained by dusting the den openings with a fine layer of dust for three successive nights and looking for footprints or other evidence of occupation. Inactive dens shall be excavated by hand with a shovel to prevent badgers from re-using them during construction.

- If **American** badger dens are found, the qualified biologist shall establish and clearly mark an appropriate buffer zone to protect the den. No grading or construction activities shall occur within the buffer zone until the biologist can safely close the badger den and has removed the buffer zone markings.

Plan Requirements and Timing: The applicant shall hire a County approved biologist and submit survey results prior to issuance of Grading Permits. Prior to issuance of grading permits, the biologist shall submit a report to the County detailing the results of the monitoring and if applicable, relocation efforts. **Monitoring**: Planning and Building shall review the survey report and site inspect during construction for compliance.

Agricultural Residential Cluster Subdivision B-9(e)

Native Landscaping. All landscaped plants for the project shall be on the County's approved plant list. To ensure that project landscaping does not introduce invasive non-native plant species into the vicinity of the site, the final landscaping plan shall be reviewed and approved by a County approved biologist and

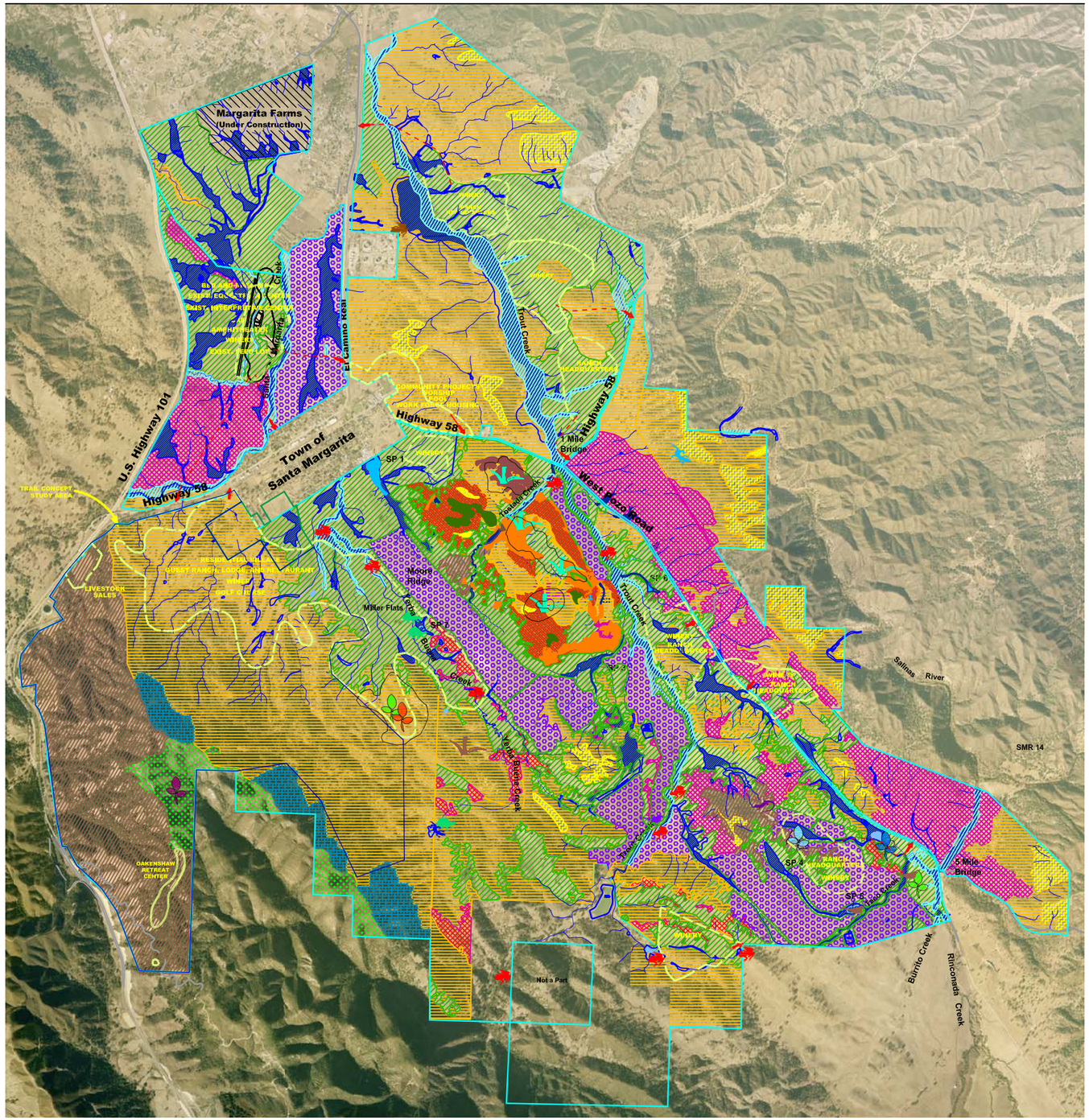
	County Environmental and Resource Management Division prior to implementation. All invasive plant species shall be removed from the landscaping plan. **Plan Requirements and Timing.** Prior to issuance of Grading Permits, the applicant shall submit a landscaping plan for approval by Planning and Building. **Monitoring.** Planning and Building shall check plans for compliance and shall site inspect six months after completion of the development for compliance.
Agricultural Residential Cluster Subdivision B-9(f)	**Pet Brochure.** The applicant shall prepare a brochure that informs prospective homebuyers about the impacts associated with non-native animals, especially cats and dogs, and other non-native animals to the project site. Similarly, **the brochure shall** inform potential homebuyers of the potential for coyotes to prey on domestic animals. **Plan Requirements and Timing.** Prior to issuance of Grading Permits, the applicant shall draft a notice ~~indicating~~ **which includes** the above information, to be recorded with the final map, subject to approval by Planning and Building. **Monitoring.** Planning and Building shall check plans for compliance.
Agricultural Residential Cluster Subdivision B-9(g)	**Night Lighting Standards.** Night lighting of public areas shall be kept to the minimum necessary for safety purposes. Exterior lighting within 100 feet of open space shall be shielded and aimed as needed to avoid spillover into open space areas. Decorative lighting shall be low intensity and be less than 25 watts. **Plan Requirements and Timing.** Prior to issuance of Grading Permits, the applicant shall submit a lighting plan for approval by Planning and Building. **Monitoring.** Planning and Building shall review all lighting plans prior to issuance of building permits and shall site inspect one year after completion of tract development for compliance.
Agricultural Residential Cluster Subdivision B-9(h)	**Minimize Road Widths.** Roadway widths adjacent to open space/agricultural areas shall be reduced to the minimum width possible, while maintaining Fire Department Requirements for emergency access, with slower speed limits introduced. Posted speed limits should be 25 mph or less. **Plan Requirements and Timing.** Prior to final map clearance, the applicant shall submit the above changes in plans for approval by Planning and Building. **Monitoring**. Planning and Building shall check plans for compliance and shall site inspect one year after completion of the development for compliance.

Residual Impacts. The implementation of the above mitigation measures would reduce impacts to wildlife in general to a less than significant level.

c. Future Development Program Impacts and Mitigation Measures. The Future Development Program represents potential future buildout of the Santa Margarita Ranch, including the proposed Agricultural Residential Cluster Subdivision. Refer to Section 4.3.2(b) for a discussion of biological resource impacts resulting from the Agricultural Residential Cluster Subdivision independently.

Future Development Program Impact B-1	**Implementation of Future Development Program land uses would result in the conversion of California Annual Grassland habitat to urban uses. This is a Class II, *significant but mitigable*, impact.**

As illustrated in Figure 4.3-3, the Future Development Program area contains Central (Lucian) Coastal Scrub, Chamise Chaparral, and California Annual Grassland. The development of several Future Development Program land use components, including wineries, golf course, residential, resort, and ranch headquarters and would directly impact California annual grassland habitat. No impacts are expected to occur to Central (Lucian) Coastal Scrub and Chamise Chaparral from implementation of Future Development Program. The California Annual Grassland habitat type is not considered to be a rare plant community botanically as it is common ~~throughout~~ **in** the region ~~and~~ **as well as common throughout** central ~~to~~ **and** southern portions of the state. However, if the Future Development Program is implemented, substantial impacts will occur to wildlife that use~~s~~ California annual grassland for breeding, foraging, migration, and dispersal (Please refer to the Agriculture Residential Cluster Subdivision B-1 mitigation measures for special-status species that are expected to occur in the California annual grassland habitat). As such, impacts to this habitat type from implementation of the Future Development Program would be Class II, *significant but mitigable*.



LEGEND

- Native Perennial Grassland
- CA Annual Grassland
- Central (Lucian) Coastal Scrub
- Chamise Chaparral
- Santa Lucia Manzanita-Eastwood Manzanita Chaparral
- Blue Oak Woodland
- Coast Live Oak Woodland
- Valley Oak Woodland
- Mixed Oak Woodland
- Ruderal
- Emergent Wetland
- Waters of the U.S.
- Seasonal Pools
- California Bay Forest
- Riparian
- Urban/Residential
- Agriculture (Vineyard/Dry Farm)
- Ranch Property Boundary
- Future Development Program Land Use Locations

SPECIAL-STATUS SPECIES

- = Silvery Legless Lizard
- = California Red-legged Frog
- = Western Spadefoot
- = Southwestern Pond Turtle
- = Loggerhead Shrike
- = Purple Martin
- = White Tailed Kite
- = Coast Horned Lizard
- = Coast Range Newt
- = Catalina Mariposa Lily
- = San Luis Obispo Mariposa Lily
- = Michael's Rein Orchid
- = Caper-fruited Tropidocarpum
- = San Luis Obispo County Morning Glory
- = San Luis Obispo Owl's Clover
- = San Luis Obispo County Lupine
- = Santa Lucia Manzanita

N

0 2000 4000 Feet

Future Development Program
Biological Constraints Map

Figure 4.3-3

Source: EDA Design Professionals, 2005, Rincon Consultants, Inc., June 2006.

Mitigation Measures. Agricultural Residential Cluster Subdivision measures B-2(a) (~~Valley Needlegrass~~ **Native Perennial** Grassland Restoration Plan), B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**), B-9(c) (Pre-~~C~~**c**onstruction Bird Surveys), and B-9(d) (**American** Badger Avoidance) would apply to all Future Development Program land uses. Future Development Program measures B-5(a) (Seasonally-Timed Rare Plant Surveys)~~,~~ **and** B-6(a) (VPFS Presence/Absence Determination) ~~and B-9(a) (Western Spadefoot Toad Avoidance, Capture and Relocation)~~ would reduce impacts. No additional mitigation is required.

Residual Impact. Implementation of the mitigation measures listed above would reduce impacts to California Annual Grassland habitat and special-status species that may use these habitats to a less than significant level.

Future Development Program Impact B-2

Implementation of the Future Development Program would result in the ~~removal~~ conversion of oak woodland habitat and the removal of and/or impacts to an unknown number of native coast live oak, blue oak, and valley oak trees ~~within the Coast live Oak Woodland, Blue Oak Woodland, Valley Oak Woodland and California annual grassland habitat types~~. This is a Class I, *significant and unavoidable* impact.

~~The Future Development Program area contains Coast Live Oak Woodland, Blue Oak Woodland, and Valley Oak Woodland habitats.~~ Implementation of the Future Development Program would **result in the direct removal and indirect impacts** ~~directly~~ impact**s to** ~~Blue Oak Woodland, Coast Live Oak, and Valley Oak Woodland habitats and convert portions of these oak-woodland habitats~~ **blue oak, coast live oak, and valley oak trees, as well as the coversion of native oak woodland habitats** into winery, ranch headquarters, retreat center, livestock sales, and a golf course and associated structures and improvements. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially remove individual oak trees, depending on final designs. Removal of large areas of these oak woodland habitats is a significant impact due to the long time-period necessary for these habitats to establish, and the relatively high amount and quality of wildlife habitat that they provide.

Mitigation Measures. Agricultural Residential Cluster Subdivision measure B-2(a) (~~Valley Needlegrass~~ **Native Perennial** Grassland Restoration Plan), B-3(a) (~~Tree Identification~~ **Oak Tree Inventory, Avoidance, and Protection Plan**), **and** B-3(b) (~~Heritage Oak Avoidance~~ **Oak Tree Replacement, Monitoring, and Conservation**)~~, and B-3(c) (Oak Tree Protection and Mitigation and Monitoring Plan)~~ would apply to all Future Development Program land uses. No additional mitigation is required.

Residual Impacts. In the short-term, impacts to oak trees and oak woodland habitats cannot be mitigated because of the length of time required for replacement trees to reach maturity and **for the conservation areas to** have ~~a~~ similar habitat values as those that are ~~replaced~~ **removed and/or impacted**. Therefore, impacts will remain Class I, *significant and unavoidable*.

Future Development Program Impact B-3 — **Implementation of the Future Development Program would result in the conversion of ~~the~~ Native Perennial Grasslands, including Valley Needlegrass Grassland, which is a CDFG ~~Plant Community of Special Concern~~ Sensitive Natural Community. This would be a Class II, *significant but mitigable,* impact.**

Implementation of the Future Development Program would impact a portion of on-site ~~Valley Needlegrass~~ **Native Perennial** Grassland occurring within the conceptual future development areas. Impacts to ~~native valley needlegrass grassland~~ **this habitat** would occur as a result of soil and surface disturbance ~~or fragmentation of habitat~~ through grading and other ground disturbance**, and would lead to fragmentation of habitat areas**. ~~This habitat type~~ **Valley Needlegrass Grassland, which is a component of Native Perennial Grassland,** is ~~included in~~ **listed by** the CNDDB ~~by the CDFG~~ as a ~~rare~~ **special-status** plant community~~, because its extent in the state of California has been greatly reduced~~. **In addition, any extensive areas in which native perennial bunchgrasses are a significant component of the species composition should be considered for impact analysis (Dave Hacker, CDFG, personal communication).**

Mitigation Measures. Agricultural Residential Cluster Subdivision measure B-2(a) (~~Valley Needlegrass~~ **Native Perennial** Grassland Restoration Plan) would apply to all Future Development Program land uses.

Residual Impacts. The implementation of the above mitigation measure would reduce impacts to~~ valley needlegrass~~ **Native Perennial ~~g~~G**rassland habitat to a less than significant level.

Future Development Program Impact B-4 — **Implementation of the Future Development Program would impact wetland and waters of the U.S. regulated by the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB) and riparian areas regulated by the California Department of Fish and Game (CDFG). This is a Class II, *significant but mitigable* impact.**

Emergent wetland~~/seasonal pool~~ habitat occurs within many areas of the Future Development Program. As described in Agricultural Residential Cluster Subdivision Impact B-4, emergent wetlands consist of wetlands adjacent to on-site creeks, wetlands within ephemeral drainages, isolated wetlands, and seasonal pools. ACOE defined wetland does not include isolated wetlands and seasonal pools. ACOE defined "waters of the U.S." and the riparian habitat associated with Burrito, San Margarita, Trout, Taco, and Yerba Buena Creeks occur within the Future Program Development conceptual land use areas. The wetlands and "waters of the U.S." areas on the property would be regulated on a federal, state, and possibly local level, thus making it necessary to coordinate with applicable regulatory agencies such as the ACOE, RWQCB, and CDFG prior to impacting these resources. Refer to Agricultural Residential Cluster Subdivision Impact B-4 for further discussion of wetland, waters of the U.S., and riparian zone regulations. Development of the Residential Village and Golf Course would directly and indirectly impact Yerba Buena Creek and known CRLF occurrences. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect jurisdictional areas at road crossings.

It should be noted that the Future Development Program conceptually includes creek drainage improvements. However, since these improvements have not been specified, impacts are potentially significant.

Mitigation Measures. Agricultural Residential Cluster Subdivision measure B-4(a) (Wetland and Riparian Protection) would apply to all Future Development Program land uses. Because these habitat types support special status animal species, impacts to this habitat type would require mitigation. Agricultural Residential Cluster Subdivision measures B-6(a) (VPFS Presence/Absence Determination), B-6(b) (~~FESA Consultation and~~ Mitigation ~~Regarding~~ **for** VPFS), B-7(a) (~~**SS Protection Plan**~~ **South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and Protection Plan**), ~~B-7(b) (FESA Consultation and Mitigation Regarding SS),~~ B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) and B-9(b) (Southwestern Pond Turtle Avoidance, Capture and Relocation) would mitigate for special-status species that may use the on-site vernal pool/wetland habitat type. The following additional mitigation measure is required:

Future Development Program B-4(a)

Avoidance of Jurisdictional Wetlands and Waters of the U.S. Future Development Program disturbance areas, including structures and grading, shall be setback a minimum of **200** ~~100~~ feet from Yerba Buena**, Taco, Trout,** ~~Creek~~ and Santa Margarita Creek**s**. Wetlands, including seasonal pools, **or waters of the U.S. or state shall** ~~shoul~~d be avoided with a minimum setback of **100** ~~50~~ feet, or as otherwise determined by ACOE, RWQCB, **NMFS** and/or USFWS. **Habitats occupied by VPFS require a minimum 300-foot setback, and those occupied by CRLF or Steelhead require a 200-foot setback.** ~~if federally listed threatened or endangered plant or animals are present~~.

Plan Requirements and Timing. The location and design of Future Development Program land uses shall be subject to review by Planning and Building. **Monitoring.** Planning and Building shall review site plans prior to issuance of Grading Permits.

Residual Impacts. Implementation of required mitigation measures would reduce impacts to a less than significant level. In addition, obtaining all the required ACOE, CDFG, and RWQCB permits for impacts within jurisdictional areas and implementation of the required fuel modification zone restrictions would result in a no-net-loss of functions and values to riparian/wetland habitats on-site.

Future Development Program Impact B-5

Implementation of the Future Development Program would impact San Luis Obispo Owl's Clover, San Luis Obispo County Morning Glory, Santa Lucia manzanita and potentially other Special-Status Plant Species, occurring within the Future Development Program conceptual land use areas. This would be a Class II, s*ignificant but mitigable* impact.

Construction of the Future Development Program would impact known occurrences of special-status plant species identified in Table 4.3-3. The envisioned residential village, guest ranch, lodge, restaurant, winery, and golf course in the central-west portion of the Future Development Program area would impact occurrences of San Luis Obispo owl's clover, San Luis Obispo County morning glory, and San Luis Obispo mariposa lily, ~~all~~ **which are** CNPS List 1B plants. Development of the Oakenshaw Retreat Center in the far west portion of the Future Development Program area would impact an occurrence of the Santa Lucia manzanita, a CNPS List 1B plant. Development of the envisioned ranch headquarters and associated road in the southeastern portion of the Future Development Program area would impact the caper-fruited tropidocarpum. Other special-status plant species may be present in the Future Development Program areas. Impacts would occur to these species as a result of removal of plants, or disturbance or fragmentation of habitat through grading and other ground disturbance. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect these species, depending on final designs. This would be a Class II, *significant but mitigable,* impact.

Mitigation Measures. Agricultural Residential Cluster Subdivision measures B-5(a) (Follow-Up Special-Status Plant Surveys), B-5(b) (San Luis Obispo Mariposa Lily and San Luis Obispo County Morning Glory Mitigation and Monitoring Plan), **and** B-5(c) ~~(San Luis Obispo Mariposa Lily Seed and Bulb Collection and Distribution), B-5(d)~~ (Protective Fencing)~~ and B-5(e) (Worker Education Program)~~ would apply to all Future Development Program land uses. The following additional mitigation measures are required:

Future Development Program B-5(a)

Seasonally-Timed Rare Plant Surveys. Prior to development of Future Development Program land use components, seasonally-timed directed floral surveys shall be completed by a County-approved qualified biologist/botanist during the appropriate season to determine the presence or absence of **the** ~~these~~ species **listed in Table 4.3-3**. ~~A target~~**This** list of plant species shall be **augmented**~~developed~~ by a qualified biologist in consultation with relevant regulatory agencies ~~based on known occurrences and within Table 4.3-3, Inventory efforts,~~ and a recent California Natural Diversity Database (CNDDB) search~~ to be completed no longer than 12 months prior to initial site disturbance~~. Surveys shall be floristic in nature (i.e.**,** all plant species observed shall be recorded), and shall be conducted in accordance with the CDFG *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (revised May 8, 2000), and USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS, 2000).

Multiple focused field surveys may be required to capture the flowering period of the target species. The location and extent of any rare plant occurrences observed in development areas shall be documented in a report and accurately mapped onto site-specific topographic maps and aerial photographs. If special-status plants are identified, the applicant for the future project

shall submit written proof that the County and CDFG have been contacted. The report shall include estimates of the plant populations and the percentage of the total population that will be lost as a result of development.

Plan Requirements and Timing. Prior to approval of Grading Permits, the applicant shall hire the qualified biologist/botanist and submit survey results. **Monitoring.** Planning and Building shall review survey results in consultation with CDFG.

Future Development Program B-5(b)

Special-Status Plant Species <u>Mitigation and</u> Monitoring Plan. If special status plant species are identified during surveys required in Future Development Program measure B-5(a), a mitigation and monitoring plan that addresses impacts to all special-status plant species, including the San Luis Obispo owl's clover, San Luis Obispo County morning glory, San Luis Obispo mariposa lily, San Lucia~~n~~ manzanita, **Catalina mariposa lily, Michael's rein orchid, San Luis Obispo County lupine,** and caper-fruited tropidocarpum shall be prepared by a County-approved biologist/botanist and reviewed by the County and CDFG. The detailed mitigation and monitoring plan shall be developed to protect and enhance the remaining occurrences of these species and to increase the overall numbers of special-status plants located within the Future Program Development area. Please refer to the Agricultural Residential Cluster Subdivision measure B-5(b) (San Luis Obispo Mariposa Lily and San Luis Obispo County Morning Glory Mitigation and Monitoring Plan) above for the minimum requirements of the **special-status plant species** mitigation and monitoring plan.

Plan Requirements and Timing. Prior to the issuance of grading permits, the applicant shall submit a mitigation and monitoring plan developed by a County approved biologist/botanist that addresses impacts to all special-status plants known to occur within the Future Development Program land use area. **Monitoring.** The County shall verify that the CDFG has reviewed the mitigation and monitoring plan, and that any recommendations by the resource agencies have been incorporated into the final mitigation and monitoring program. A County approved biologist/botanist shall be retained to monitor all construction activities to ensure compliance with the final special-status plant mitigation and monitoring plan. After clearing and/or grading have been started, the ~~botanist~~ **biologist**/botanist shall submit a report to the County detailing the results of the monitoring and if applicable, any relocation efforts. The County shall verify that the annual monitoring program has been conducted by a County approved biologist.

Residual Impacts. The implementation of the above mitigation measures would reduce impacts to a less than significant level.

Future Development Program Impact B-6

Implementation of the Future Development Program could result in a direct take of the ~~F~~federally t~~T~~hreatened Vernal Pool Fairy Shrimp (VPFS). This potential impact is Class II, s*ignificant but mitigable*.

Suitable habitat for the VPFS occurs within seasonal pools found throughout the Future Development Program area. Over thirty-five seasonal pools have been observed and recorded during inventory efforts for the property. The Future Development Program area contains at least twenty-five seasonal pools found within wetlands, low gradient ephemeral drainages, and depressions within flatter areas of the site. **Thomas (2003) conducted wet-season VPFS surveys at 19 sites in 2003, but because these surveys were conducted within more than the 14-day requirement following pool filling, they were not considered to meet USFWS (1996) protocol requirements. In addition, this survey did not include all potentially suitable habitats.** VPFS have potential to occur within seasonal pools within the conceptual golf course, residential village, guest ranch, lodge and restaurant – winery area in the central-west portion of the Future Development Program area, as well as within several envisioned ranch headquarters and winery areas. VPFS habitat may be present along the trail concept study area as well as in other areas envisioned for development. Impacts could occur to VPFS as a result grading and other ground disturbance activities or any changes in hydrology. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect this species, depending on final designs. This would be a Class II, *significant but mitigable,* impact.

Mitigation Measures. Agricultural Residential Cluster Subdivision measures B-6(a) (VPFS Presence/Absence Determination) and B-6(b) (~~FESA Consultation and~~ Mitigation ~~Regarding~~ **for** VPFS) would apply to all Future Development Program land uses. The following additional mitigation measure is required:

Future Development Program B-6(a)

VPFS Presence/Absence Determination. Prior to issuance of Grading Permits, USFWS **(1996)** protocol surveys shall be conducted by a County-approved qualified biologist **who possesses a federal 10(A)(1)(a) handling permit for VPFS** to determine the presence or absence of VPFS within **all potentially suitable habitat areas within** the Future Development Program land use areas. A ~~90-Day~~ report consistent with current ~~F~~**f**ederal reporting guidelines shall be prepared to document the methods, surveyed pool locations, and results of surveys. Should the presence of VPFS or additional special-status wildlife species be determined, a map identifying locations in which these species were found shall be included in the report.

If the surveys produce a negative finding for the presence of VPFS, the results of the survey shall be submitted to the USFWS and the applicant shall request a letter of concurrence that the project is unlikely to result in the take of VPFS. The USFWS shall

determine if additional surveys or information is required. Once a letter of concurrence is obtained from the USFWS, no further mitigation would be required. If VPFS are identified, then Agricultural Residential Cluster Subdivision measure B-6(b) (~~FESA Consultation and~~ Mitigation ~~Regarding~~ **for** VPFS) would be required.

Plan Requirements and Timing. The applicant shall hire a USFWS permitted biologist to conduct ~~a dry season~~ **protocol** survey**s** and prepare a final report of findings. Survey results shall be submitted to the USFWS and Planning and Building prior to issuance of Grading Permits. **Monitoring.** Planning and Building shall verify completion of the surveys and ~~coordination with~~ **approval of survey methodology from the** USFWS prior to ~~approval~~ **issuance** of Grading Permits.

Residual Impacts. Implementation of the above mitigation measures in concert with Agricultural Residential Cluster Subdivision measures B-4(a) (Wetland and Riparian Protection), B-6(a) (VPFS Presence/Absence Determination), B-6(b) (~~FESA Consultation and~~ Mitigation ~~Regarding~~ **for** VPFS) and B-9(b) (Southwestern Pond Turtle Avoidance, Capture and Relocation) would reduce impacts to VPFS to a less than significant level. ~~A requirement of FESA is that any such take shall not jeopardize the continued existence of the listed species. Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project~~, **Therefore,** the impact to VPFS is Class II, *significant but mitigable*.

Future Development Program Impact B-7

Implementation of the Future Development Program could result in direct and/or indirect take of the ~~F~~federally ~~T~~threatened ~~Southern Steelhead (SS)~~ South/Central California Coast Steelhead and/or the loss of ~~F~~federally designated ~~SS~~ Steelhead Critical Habitat through grading activities and/or sedimentation of occupied creeks. This potential impact is Class II, *significant but mitigable.*

The ~~F~~federally Threatened ~~Southern Steelhead (SS)~~ **South/Central California Coast Steelhead (Steelhead)** is known to occur within the Future Development Program portion of Santa Margarita~~, and~~ Trout~~, and Rinconada~~ Creeks **(Althouse and Meade, 2005; Mike Hill, CDFG, personal communication; NMFS, 2005)**. These creeks are **tributaries to** ~~within~~ the upper Salinas River ~~watershed and Santa Margarita and Rinconada Creeks~~ **and** converge with the Salinas River ~~east and~~ northeast of the site. The Salinas River enters the Pacific Ocean approximately 150 miles north near the City of Monterey. ~~Santa Margarita Creek,~~ **Coast rainbow trout have been observed in** Rinconada Creek ~~, and the Salinas River are steelhead occupied streams~~ (Mike Hill, CDFG**, personal communication;** ~~and NOAA Fisheries~~ **NMFS**, 2005)**, but due to the presence of Pierce Dam on the Salinas River, any juveniles produced that may wash over the dam and make it to the ocean would not be able to return to their spawning sites (Dave Highland, CDFG Fish Habitat Specialist, personal communication)**. **Therefore, the population in Rinconada Creek would not be considered to be Steelhead, but**

nevertheless, should be considered to be a locally important biological resource. Similarly, Taco Creek is also above Pierce Dam. ~~In addition, a~~**A**ll of these waterways are within ~~SS~~ **Steelhead** Critical Habitat (~~NOAA Fisheries~~ **NMFS**, 2005). Within the Future Development Program area, ~~SS~~ **Steelhead** are likely to occupy Trout Creek during moderate to high flow periods in average to above average rain years (Mike Hill, CDFG, pers**onal** comm**unication**). The portions of Santa Margarita~~,~~ **and** Rinconada~~, and Trout~~ Creek**s** and the Salinas River in the Future Development Program area have exceptional breeding and migratory habitat consisting of rounded gravel to cobble bed substrate, tree snags, overhanging banks, and moderate to deep pools suitable for ~~SS~~ **Steelhead** spawning.

Impacts from development of the Future Development Program would occur to ~~SS~~ **Steelhead** from development of envisioned land use components. A ranch headquarters and a winery are envisioned along Trout Creek in the northeastern portion of the site and an equestrian area is envisioned along Santa Margarita Creek in the northwestern portion of the site. Habitat degradation caused by sediment entering all the creeks and Salinas River during grading activities may result in the loss of suitable spawning pools and reduction in abundance and diversity of prey. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect this species, depending on final designs.

It should be noted that, as discussed in Section 4.14 (*Water and Wastewater*) of this EIR, water demand from implementation of the Future Development Program may contribute to overdraft of the aquifer system. Agricultural Residential Cluster Subdivision measure W-1(c) (Imported Water Supply), which applied to the Future Development Program as well, requires that the applicant acquire imported water supply to serve the envisioned Future Development Program land uses. Due to uncertainty regarding timing and availability of these sources, this impact is *significant and unavoidable*. Although this is a Class I impact, the applicant is required to obtain imported water prior to implementation of the Future Development Program land uses, and development could not occur without adequate water supply. As a result, water use to serve the Future Development Program land uses would not reduce stream flow and water supply available for riparian vegetation and ~~SS~~ **Steelhead** migration and breeding habitats.

Mitigation Measures. Agricultural Residential Cluster Subdivision measure B-7(a) (~~SS~~ **South/Central California Coast Steelhead (Steelhead) Mitigation, Minimization and** Protection Plan) would apply to all Future Development Program land uses. **In particular, a minimum 200 foot buffer is required for all Steelhead-occupied habitats, including Santa Margarita and Trout Creeks.** No additional mitigation is required.

Residual Impacts. Implementation of the above mitigation measure in concert with Agricultural Residential Cluster Subdivision measures B-4(a) (Wetland and Riparian Protection) and B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) would reduce impacts to ~~SS~~ **Steelhead** to a less than significant level.

Future Development Program Impact B-8 **Implementation of the Future Development Program would result in a direct take of the Federally Threatened California red-legged frog (CRLF) through grading activities for the envisioned land use components, and would fragment the amount of available habitat potentially used for movement and dispersal. This potential impact is Class II, *significant but mitigable*.**

~~The Federally Threatened California red-legged frog (CRLF) was observed within Santa Margarita, Trout, and Yerba Buena Creeks and an upstream pool in Taco Creek in the Future Development Program area. Many of these occurrences were documented during Inventory efforts between 2002 and 2003. CRLF are expected to still occupy these creeks.~~ **Several federally threatened California red-legged frogs (CRLF) were observed during the 2002-2003 inventory efforts and concurrent incidental sightings within Trout, Taco, and Yerba Buena Creeks and in an agricultural pond (Pond 4a) midway between ~~an upstream pool in~~ Taco Creek and Trout Creek. CRLF tadpoles were observed in the agricultural pond. Suitable habitat for CRLF exists in Santa Margarita Creek.** Movement of CRLF~~, especially breeding season movement and dispersal, likely occurs between Santa Margarita Creek and Yerba Buena Creek in the northwestern portion of the property and Santa Margarita Creek and Trout Creek in the northeastern portion of~~ **likely occurs between aquatic sites occupied by the species on** the property. CRLF**-**occupied ~~creeks~~ **aquatic sites** and upland areas between aquatic features would be directly or indirectly impacted by development of the Future Development Program. CRLF that breed within Yerba Buena Creek would be directly impacted by development of the golf course and its associated elements (winery, residential village, guest ranch, and restaurant). CRLF that breed in Santa Margarita Creek would be directly impacted by development of the equestrian center and amphitheatre. CRLF may also be impacted in other portions of the Future Development Program in areas adjacent to **and containing other suitable** creeks, seasonal pools, and wetlands. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect this species, depending on final designs. Refer to Agricultural Residential Cluster Subdivision Impact B-8~~(a)~~ for further discussion of CRLF ecology and impacts to CRLF.

Mitigation Measures. Agricultural Residential Cluster Subdivision measure B-8(a) (~~FESA Consultation~~ **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) would apply to all Future Development Program land uses. No additional mitigation is required.

Residual Impacts. ~~A Biological Opinion and/or preparation of an approved Habitat Conservation Plan is required to authorize the potential incidental take of the CRLF pursuant to FESA. A requirement of FESA is that any such take shall not jeopardize the continued existence of CRLF. Since the FESA incidental take permitting approval process requires implementation of conservation strategies to avoid, minimize, or compensate for adverse effects of the project to fully mitigate for impacts and leave a species in as good or better condition than it was before the project~~, **Implementation of the above mitigation measure and those required as a result of FESA compliance would reduce impacts to the CRLF to a less than significant level. Therefore,** the impact to CRLF is Class II, *significant but mitigable*.

Future Development Program Impact B-9

Implementation of the Future Development Program would reduce the populations and available habitat for wildlife in general, including special-status wildlife species. Because of the size of the site, degree of habitat diversity, and known and/or potential presence of a number of special-status wildlife species on-site, the loss of wildlife habitat is a Class II, *significant but mitigable* impact.

The discussion regarding impacts to wildlife, special-status wildlife, wildlife movement, wildlife in general, and impacts related to introduction non-native species in the Agricultural Residential Cluster Subdivision Impact B-9 applies to implementation of the Future Development Program. In addition, the seasonal pools in the Future Development Program are suitable habitat for western spadefoot ~~toad~~, a California Species of Concern. **The** ~~W~~**w**estern spadefoot ~~toads were~~ **was** observed within SMR Pond 33**, and it likely occurs in other locations throughout the site**. Implementation of Future Development Program land uses would directly impact this species, which is a potentially significant impact. Implementation of required roadway improvements described in Section 4.12, *Transportation and Circulation,* could also potentially affect habitat for wildlife, depending on final designs.

Mitigation Measures. Agricultural Residential Cluster Subdivision measures B-9(a) (Legless and Horned Lizard Capture and Relocation), B-9(b) (Southwestern Pond Turtle Avoidance, Capture and Relocation), B-9(c) (Pre-~~C~~**c**onstruction Bird Survey), B-9(d) (**American** Badger Avoidance), B-9(e) (Native Landscaping), B-9(f) (Pet Brochure), B-9(g) (Night Lighting Standards), and B-9(h) (Minimize Road Widths) would apply to all Future Development Program land uses.

~~**Future Development Program B-9(a)**~~

~~**Western Spadefoot Toad Avoidance, Capture and Relocation.** A County approved biologist shall conduct winter/spring surveys for western spadefoot toad prior to initial site disturbance. The survey area shall include seasonal pools located within the Future Development Program area that contain potential habitat for western spadefoot and the Inventory Seasonal Pool 33, where they have been observed and documented. Night surveys shall be initiated upon initial inundation of potential vernal/seasonal pools. Night surveys should consist of vocalization and visual elements. The USFWS CRLF survey guidelines provide accepted techniques for amphibian species; however, the surveyor(s) should not enter the vernal/seasonal pool as this species is easily recognized from the pool's edge. Day surveys shall be conducted to search for egg masses and larvae. If any western spadefoot toad eggs, larvae, or adults are found, the approved biologist shall contact CDFG to determine if moving any individuals is appropriate. If CDFG approves moving animals, the biologist shall be allowed sufficient time to move the toads or their larvae from the work site before work activities begin. If adults are found early in the season, it is recommended that the surveys weight **be postponed** until breeding has occurred and eggs have been laid, so that the~~

~~transferred individual(s) can sustain a viable population in the receptor seasonal pool. Only the approved biologist shall participate in activities associated with the capture and handling of western spadefoot toads. Agricultural Residential Cluster Subdivision measures B-6(a) (VPFS Presence/Absence Determination), B-6(b) (FESA Consultation and Mitigation Regarding **For** VPFS) and B-8(a) (FESA Consultation **California Red-legged Frog Avoidance, Minimization, and Mitigation Measures**) for CRLF and VPFS will benefit this species if it is shown to be present, thus no additional mitigation measures are required.~~

~~**Plan Requirements and Timing.** The applicant shall hire the County-approved qualified biologist and submit survey results prior to approval of Grading Permits. After clearing and/or grading have been started, the biologist shall submit a report to the County detailing the results of the survey. **Monitoring.** The biologist shall be responsible for monitoring activities. Planning and Development shall review the final report.~~

Residual Impacts. The implementation of the above mitigation measures would reduce impacts to a less than significant level.

d. Cumulative Impacts. The evaluation of the Future Development Program, which includes the Agricultural Residential Cluster Subdivision, in this EIR accounts for all of the expected growth in the Santa Margarita area, as it represents buildout of the major landholding that surrounds the existing community, consistent with the Salinas River Area Plan. Therefore, cumulative biological resources impacts from buildout of the Agricultural Residential Cluster Subdivision in combination with buildout of the Future Development Program were addressed in the Future Development Program impact analysis above. As future applications for individual Future Development Program projects are submitted at a project level of detail, the precise evaluation of future project cumulative impacts would be coordinated through the required Specific Plan and associated environmental review, or through individual project-level environmental review, as applicable.