Appendix H: Biological Assessment

Biological Resources Assessment
September Ranch Subdivision Project

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SECTION 1:
INTRODUCTION

This Biological Resource Assessment (BRA) has been prepared for the Revised Environmental Impact Report (REIR) for the 1,673-acre September Ranch Subdivision property. This BRA addresses potential impacts presented by several state and local agencies after the Final EIR was prepared in 1995 (Denise Duffy and Associates 1995). Issues that are addressed in this BRA include: an analysis of potential impacts to special status species that have become listed since the final EIR, a further assessment of impacts to Monterey pine (*Pinus radiata*) that include the potential for the spread of disease caused by habitat fragmentation, loss of coastal terrace prairie habitat and other special status communities, and a discussion of wetlands and waters of the United States as they pertain to the September Ranch Subdivision project.

1.1 - PROJECT DESCRIPTION

The September Ranch Subdivision project site (Assessor Parcel Numbers 015-171-10, 015-171-12, 015-381-13 and 015-381-14) is located approximately 2.3 miles east of Carmel by the Sea, approximately 3.3 miles southeast of Monterey, and is north of Carmel Valley Road (Highway 218) in western Monterey County, California (Exhibit 1-1). Residential development occurs on the southern and western boundaries of the property (Exhibit 1-2). Open space and regional parks occur north of the project site.

Total acreage of the study area is approximately 1,673. The September Ranch Subdivision project includes development of 891 acres that will be subdivided into 94 market rate residential lots, 15 units of inclusionary housing (planned unit development), and includes an existing 24.2-acre equestrian training facility. A total of 782-acres are designated as open space.

Support facilities for the residential development include a separate system for potable water distribution, water tanks for fire suppression, a sewage collection and treatment system, a waste water treatment system, a drainage system, interior roads, a sales office, and a security gate. All interior roads that cross ephemeral tributaries will be constructed from bank to bank and no culverts will be placed within existing drainages.

SOURCE: Automobile Club of Northern California, 2002.

NORTH

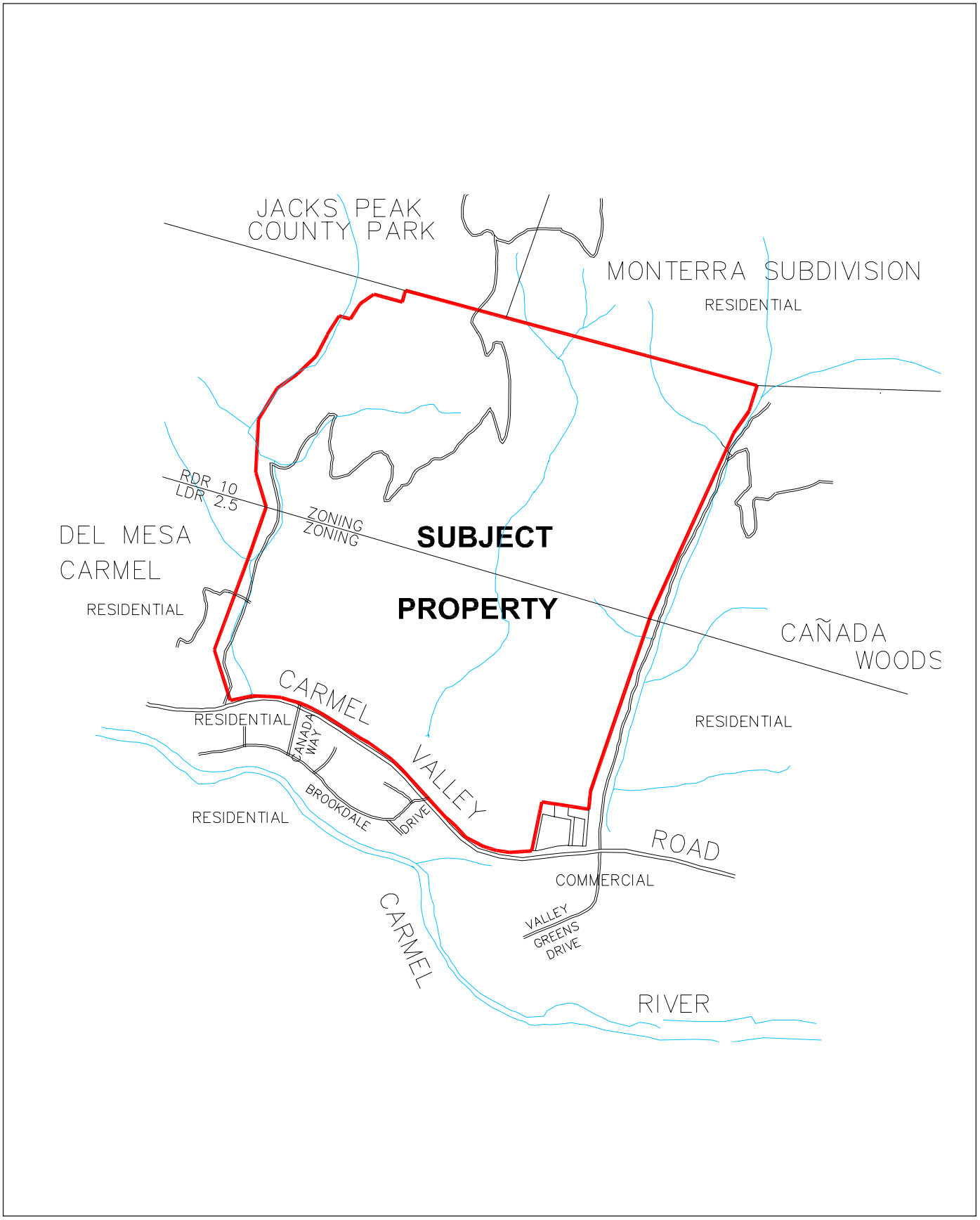
29 14.5 0 29

SCALE IN MILES

Michael Brandman Associates

Exhibit **1-1**

Regional Location Map



Source: Whitson Engineers, December 2002.

NORTH

3000 1500 0 3000

SCALE IN FEET

Michael Brandman Associates

Exhibit **1-2**

Local Vicinity Map

SECTION 2:
METHODS

Information on special-status plant species was compiled through a review of the California Natural Diversity Data Base (CNDDB 2003) for the Monterey and Seaside 7.5-minute US Geographic Service (USGS) topographic quadrangles, the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (Skinner and Pavlik 1994), and the California Department of Fish and Game's (CDFG) Special Plants List (CDFG 2003a).

A list of special-status wildlife species known or expected to occur on the site was compiled through a review of the CNDDB (CNDDB 2003), the CDFG's *Special Animals List* (CDFG 2003b), *State and Federally Listed Endangered and Threatened Animals of California* (CDFG 2003c) and the USFWS list of special-status animals (USFWS 2003).

Also reviewed were reports previously prepared for the site, including the *Updated Biological Surveys for September Ranch, Monterey County, CA* (Zander Associates 2002), *Supplemental Forestry Report of August 2002 to the Forestry Management Plan for September Ranch, prepared by Hugh Smith, dated May 10, 1995* (Staub 2002), *Final Environmental Impact Report Volume 2 - Supplemental Information in Response to Additional Public Comments* (Denise Duffy and Associates 1998), *September Ranch in Carmel Valley, Monterey County, CA - Smith's Blue Butterfly Survey in 2001* (Entomological Consulting Services 2001), *September Ranch in Carmel Valley, CA - Smith's Blue Butterfly Survey in 1996* (Entomological Consulting Services 1996), *September Ranch in Carmel Valley, CA - Smith's Blue Butterfly in 1995* (Entomological Consulting Services 1995), *Forest Management Plan for Residential Subdivision* (Smith 1995), *Morgens Property Special Status Plants Assessment* (Mori 1995a), *Morgens Property Biotic Assessment Carmel Valley, California* (Mori 1995b), *Biological Resource Assessment, Morgens Property, Carmel Valley, California* (Zander Associates 1995), *Morgens Ranch Biological Survey* (WESCO 1981), and comments from the USFWS (USFWS 1997), CDFG (CDFG 2003E), the Monterey Pine Forest Watch (Smith 2003) and the California Native Plant Society Monterey Bay Chapter (Matthews 2003).

At the request of MBA, Barbara Malloch-Leitner conducted a site reconnaissance in April 2003, to assess the potential for the occurrence of special status plant species based on the analysis contained within the biological reports previously prepared for the September Ranch Subdivision project site. In addition a site reconnaissance was conducted on May 23, 2003 by Michael Brandman Associates ecologist Trish Tatarian for preparation of this report. Both reconnaissance-level site visits were intended only as initial evaluations of on-site and adjacent habitat types. Focused surveys for special-status plant and animal species were not conducted as part of this effort.

For purposes of this report, the 1,673 acre study area consists of all lands within the property boundaries, which includes the 891 acre project site.

SECTION 3:
EXISTING CONDITIONS

3.1 - SETTING

The study area is located within the North Coast Bioregion (Welsh 1994). This bioregion is located within the northern California coastal region; encompasses areas as far north as Mendocino County and includes the southern portion of Monterey County south of Monterey. Habitats within this bioregion include both mesic (moist) habitats, such as redwood forest, and xeric habitats, such as coastal scrub, and are typical of a Mediterranean climate. Annual winter precipitation averages 17.23 inches (Western Regional Climate Center 2003). The Monterey area is defined by the Pacific Ocean and Santa Lucia coastal mountain range.

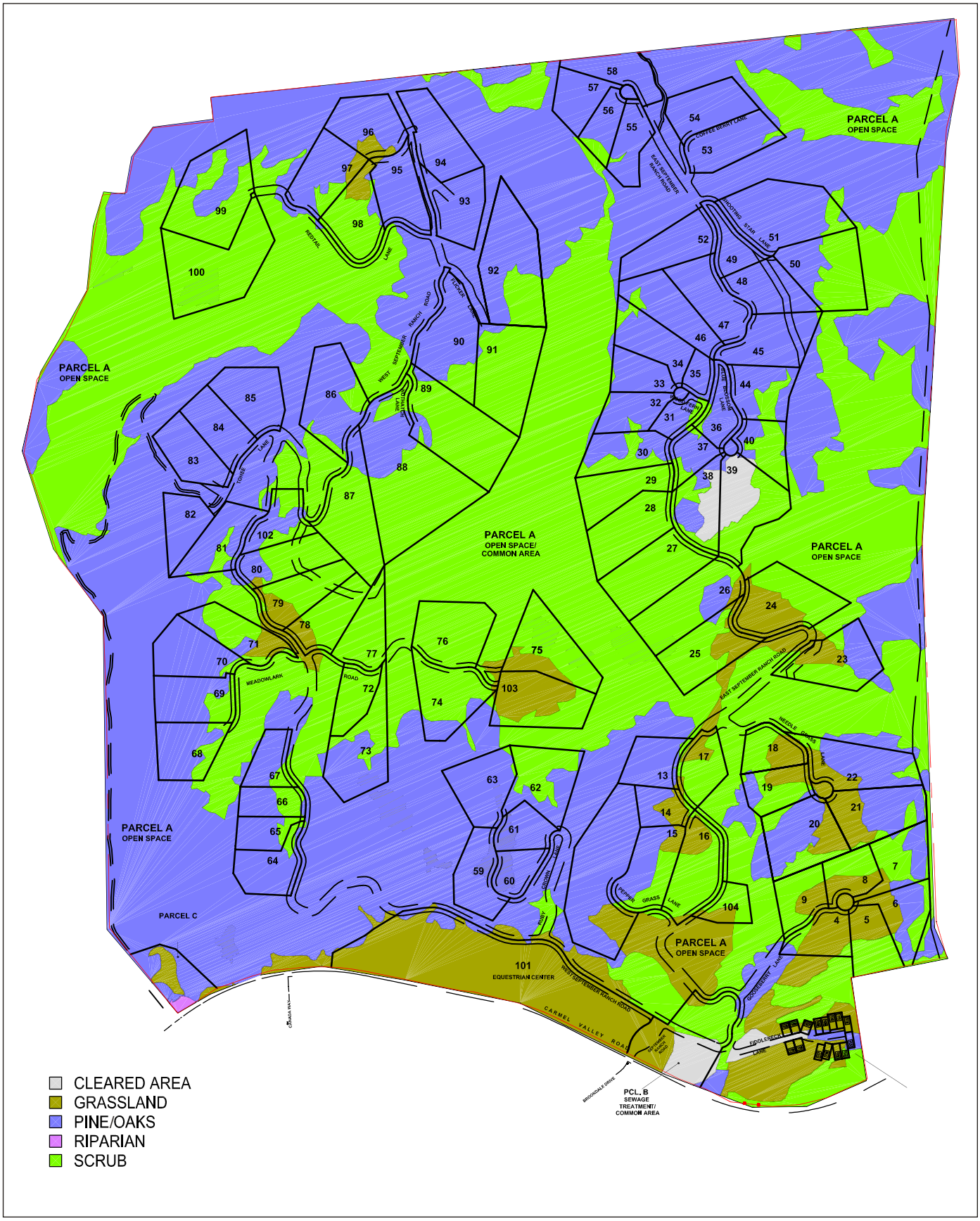
Located approximately 2.5 miles east of the Pacific Ocean, and 11 miles north of Los Padres National Forest, the September Ranch Subdivision project study area is located within the Carmel Valley, north of Saddle Mountain. The roughly rectangular-shaped study area is located within the central portion of the Seaside 7.5-minute topographic quadrangle, within Township 15S and Range 1E area. The study area is located on the southern border of Jacks Peak County Park, and east of Roach Canyon, approximately 0.35 miles north of the Carmel River.

The approximate 1,673-acre study area ranges in elevation from 70 to 976 feet above sea level. The south-facing hillsides support six ephemeral drainages that lack a defined bed or bank and with no visible scouring marks (Denise Duffy and Associates 1997). No hydrophytic vegetation was observed within the drainages. The canopy consists of coast live oak forest.

Approximately 24.2 acres is occupied by an existing equestrian center and horse pastures that are included in the 891 acre project site.. Cattle-grazing occurs within the study area, and has been present for several decades.

3.2 - VEGETATION COMMUNITIES

The 891-acre project area supports a variety of vegetation communities, including native Monterey pine forest/mixed oak woodland, native and non-native grasslands, and coastal scrub. A small area of the western portion of the site supports riparian habitat. Following is a discussion of the native plant communities/habitat types found on the project site as described in the studies and site visits referenced previously.. Table 3-1 presents acreages of vegetation communities within the 891-acre project site



Michael Brandman Associates

Exhibit **3-1**
Vegetation Map

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SEPTEMBER RANCH SUBDIVISION PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

Table 3-1: Acreages of Vegetation Communities within the Project Area

Vegetation Community	Acreage
Monterey Pine/Coast Live Oak Forest	426.00
Coastal Scrub	378.00
Grassland	62.00
Willow Riparian Scrub	0.77
(Equestrian Center)	24.23
Total Acreage	**891.00**
Source: Michael Brandman Associates, 2004.	

3.2.1 - Monterey Pine/Coast Live Oak Forest

Monterey pine/coast live oak forest covers approximately 426 acres (47 percent) of the project site as illustrated on and Exhibit 3-1. The Monterey pine (*Pinus radiata*) and coast live oak (*Quercus agrifolia*) vary in relative abundance and cover, with the oaks dominant along the southern lower slopes and the pines dominant on the higher ridges to the north (Denise Duffy and Associates 1998). The southern slopes support the largest oaks on the property. The pine/oak forest understory is generally open and consists of grasses such as leafy bentgrass (*Agrostis diegoensis*) and western wildrye (*Elymus glaucus*), as well as scattered shrubs, including poison oak (*Toxicodendron diversilobum*), bush monkey flower (*Diplacus aurantiacus*), goldenbush (*Hazardia squarrosa*), and redberry (*Rhamnus crocea*). Stands of the invasive French broom (*Genista monspessulana*) comprise the understory mostly on the southern half of the project site.

Although Monterey pines are widely planted throughout the region, there are three native stands of the species remaining on the California coast at Point Ant Nuevo, Santa Cruz and San Mateo counties, in Cambria, San Luis Obispo County and on the Monterey Peninsula, Monterey County. See Section 4, Special Status Natural Communities and Species, for further discussion.

3.2.2 - Coastal Sage Scrub

Coastal sage scrub covers approximately 380 acres of the project site as illustrated in Exhibit 3-1. This habitat type is found on the steep, exposed arid slopes on the site. The dominant plant species include California sage (*Artemisia californica*), coyote brush (*Baccharis pilularis*), bush monkey flower (*Diplacus aurantiacus*), black sage (*Salvia mellifera*), goldenbush (*Hazardia squarrosa*) and redberry (*Rhamnus crocea*). On the western portion of the project site where the canyons are more mesic, the scrub vegetation is very dense and tall and consists of poison oak (*Toxicodendron diversilobum*) and coffee bean (*Rhamnus californicus*). Blue blossom (*Ceanothus thyrsiflorus*), cream

bush (*Holodiscus discolor*) and California blackberry (*Rubus ursinus*) are also present on the western portion of the project site.

3.2.3 - Grasslands

Grasslands encompass approximately 62-acres of the property and account for most of the plant diversity on the site; over 240 different species were identified during the November 1994 and March 1995 surveys, and occur in both native and non-native grasslands (Zander Associates 1995). Non-native annual grassland is generally found in open areas in valleys and foothills throughout coastal and interior California (Holland 1986). It typically occurs on soils consisting of fine-textured loams or clays that are somewhat poorly drained. This vegetation type is dominated by non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, that have replaced native perennial grasslands as a result of human disturbance. Scattered native wildflower species representing remnants of the original vegetation may also be common if an area is grazed. Within the project area, both non-native and native grasslands occur.

Non-Native Grasslands

Non-native grasslands are annual grasslands that support introduced species such as ripgut brome (*Bromus diandrus*), red brome (*B. rubens*), soft chess (*B. hordeaceus*), and Mediterranean barley (*Hordeum hystrix*).

Native Grasslands

Native grasslands are perennial grasslands that support purple needlegrass (*Nasella pulchra*), small-flowered needlegrass (*Nasella lepida*), pine bluegrass (*Poa secudna*), and California oatgrass (*Danthonia californica*). Some of the grassland areas on the sites were identified as having a higher diversity of native grasses and flowering herbs than previously expected. The native flowering herbs identified include: Johnny jump-up (*Viola pedunculata*), suncups (*Camissonia ovata*), shooting star (*Dodecatheon clevelandii*), checkerbloom (*Sidalcea malvaeflora*), blue-eyed grass (*Sisyrinchium bellum*), buttercup (*Ranunculus californicus*), owl's clover (*Castilleja* spp.), clover (*Trifolium* spp.), California poppy (*Eschscholzis californica*), Mariposa lily (*Calochortus luteus*), sky lupine (*Lupinus nanus*), and blue dicks (*Dichelostemma capitatum*).

3.2.4 - Willow Riparian

Riparian vegetation is generally absent from major drainages on the project site. The drainages on the site are ephemeral, lack a defined bed or bank, and do not exhibit observable scour. The survey conducted in January 1995, a very wet year, confirmed that these drainages do not appear to convey significant storm flows and do not support hydrophytic (moisture-tolerant) vegetation.

A narrow strip of riparian vegetation (approximately 0.7-acres) consisting primarily of willow (*Salix* sp.) was observed at the base of Roach Canyon along Carmel Valley Road. Because the grade of Carmel Valley Road is higher than the bed of Roach Canyon, surface and/or subsurface flows may

drain to the culverts beneath Carmel Valley Road thereby providing sufficient moisture to allow for the establishment of these willows. However, no pooling or ponding of water was observed in this area during the January 1995 survey. Other plant species observed with the willow include poison oak, creek gooseberry, mugwort (*Artemisia douglasiana*), greater periwinkle (*Vinca major*), and hedge-nettle (*Stachys albens*).

3.3 - WILDLIFE HABITATS

Several wildlife habitats, which include vegetation communities and anthropogenic structures, occur within the 1,673-acre study area; however, the descriptions below pertain only to those habitats that are within the 891-acre project area.

3.3.1 - Monterey Pine/Mixed Oak Woodland

Monterey pine and oak woodlands are important habitats for many bird and animal species since they provide a valuable food source (acorns), as well as potential sources of shelter (tree cavities, fallen woody debris). Woody debris from oak and pine trees contribute to the structural complexity of the forest floor and allow for the development of micro-climates suitable for amphibians and reptiles. Important understory plants in woodlands include poison oak, redberry, brittle-leaf manzanita (*Arctostaphylos tomentosa*), and creeping snowberry (*Symphoricarpos mollis*), which provide seasonal food sources for birds and mammals. Pines provide nuts for a variety of birds and small mammals as well and because the trees are short-lived, the older representative animal species of Monterey pine dominated forests include hairy woodpecker (*Picoides villosus*), Stellar's jay (*Cyanositta stellen*), brown creeper (*Certhia americana*), pygmy nuthatch (*Sitta pygmaea*), and pine siskin (*Carduelis pinus*).

Representative animal species of oak dominated forests include arboreal salamander (*Aneides lugubris*), southern alligator lizard (*Gerrhonotus multicarinatus*), common kingsnake (*Lampropeltis getulus*), western screech owl (*Otus kennicottii*), scrub jay (*Aphelocoma corulescens*), Virginia opossum (*Didelphis virginianus*), dusky footed woodrat (*Neotoma fucipes*), Merriam's chipmunk, western gray squirrel (*Sciurus griseus*), and black-tailed deer.

3.3.2 - Coastal Sage Scrub

Coastal sage scrub is relatively dense throughout the project site in the more open or disturbed areas associated with the trail/road cuts or rock outcrops. The thick scrub provides valuable cover and nesting habitat for animal species, with the more open areas providing valuable foraging habitat. Rock outcrops and talus (i.e., slope formed from rock debris) found within this community provide valuable denning, cover and roosting habitat as well. Animal species common to this habitat include

western fence lizard (*Sceloporus occidentalis*), western rattlesnake (*Crotalus viridis*), California whipsnake (*Masticophis lateralis*), blue-gray gnatcatcher (*Potopfila caerulea*), wrentit (*Chamae fasciata*), Bewick's wren (*Thryomanes bewickii*), brush rabbit (*Sylvilagus bachmanii*), California mouse (*Peromyscus californicus*) and gray fox (*Urocyon cinereoargentus*). Pines provide nuts for a variety of birds and small mammals as well and because the trees are short-lived, the older senescent trees provide an important resource for woodpeckers, which prefer to excavate in dead or dying trees.

3.3.3 - Grassland

Grassland habitat, including the non-native grasslands present onsite, attracts reptiles, such as northern alligator lizard (*Gerrhonotus multicarinatus*), and western fence lizard (*Sceloporus occidentalis*), which feed on invertebrates found beneath debris in the vegetation community. This habitat also attracts avian seed-eating and insect-eating species of birds and mammals. California quail (*Lophortyx californicus*), mourning dove (*Zenaidura macroura*), and meadowlark (*Sturnella* neglecta) are a few seedeaters that nest and forage in grasslands. Insect-eaters such as scrub jays (*Aphelocoma coerulescens*), barn swallows (*Hirundo rustica*), and mockingbirds (*Mimus polyglottus*) use the habitat for foraging only. Grasslands are important foraging grounds for aerial and ground foraging insect-eating bat species such as myotis (*Myotis* spp.) and pallid bat (*Antrozous pallidus*). A large number of other mammal species such as California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*) and black-tailed jackrabbit (*Lepus californicus*) also forage and nest within grasslands. Small rodents attract raptors (birds of prey) such as owls that hunt at night, as well as day-hunting raptors such as red-tailed hawks (*Buteo jamaicensis*), and white-shouldered kite (*Elanus leucurus*), among others. Mammals that have habituated to the presence of human habitation, such as raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*), frequently use the site, as was evidenced by the presence of scat.

3.3.4 - Willow Riparian

The wildlife value of riparian habitats is generally considered high due to the presence of shrubs and trees that provide cover for animals in an area adjacent to a water source. Animal species that are common to riparian habitats include song sparrow (*Melospiza melodia*), Wilson's warbler (*Wilsonia pusilla*), and ornate shrew (*Sorex omatus*). The riparian habitat on the project site has moderate wildlife value due to its limited distribution and coverage, lack of surface water, and its close proximity to Carmel Valley Road.

3.3.5 - Structures

Bird species that use anthropogenic structures such as the horse barn found on-site include passerines, such as black phoebe (*Sayornis nigricans*), and raptors, such as American kestrel (*Falco sparverius*).

These species have adapted to disturbances associated with human settlements and will nest and forage in close proximity to humans. In general, the nesting season for both passerines and raptors typically begins at the end of February and may last to mid-August. Several bat species, including Mexican free-tailed bat (*Tadarida braziliensis mexicana*) and pallid bat (*Antrozous pallidus*), could potentially use the barn structure for day or night roosting, or as a hibernaculum. The equestrian center, although part of the September Ranch Subdivision project, is not planned for renovation or demolition. As a result no impacts will occur.

3.4 - WILDLIFE MOVEMENT CORRIDORS

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

The open space available within the 1,673-acre study area provides a movement corridor for a variety of common wildlife species, such as raccoons, opossums and skunks, , as was evidenced by various scat observed. The value of the movement corridor from the open habitats in the north, such as the Jacks Peak County Park area, and in the south, such as the Carmel River, is reduced by the existence of development immediately surrounding the Carmel River. Larger species, such as deer, use the study area as a movement corridor and will not be impeded by the residential development. On the other hand, small species such as amphibians will find it difficult to move onto the site from the Carmel River due to the residential development and the debris blocked culverts going under Highway 84.

SECTION 4:
SPECIAL-STATUS NATURAL COMMUNITIES AND SPECIES

Communities and species are designated as having special status due to their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special status is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA), enacted by Congress in 1973, outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. Many individual states have enacted their own listing procedures to provide for the protection of additional locally sensitive biological resources. The California Endangered Species Act (CESA) of 1984 amends the California Fish and Game Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA.

4.1 - SPECIAL STATUS NATURAL COMMUNITIES

Special-status natural communities are those that are considered rare, based on limited distribution in the region, but may or may not support special-status plant or wildlife species. Special status natural communities may also receive regulatory protection (*i.e.*, §404 of the Clean Water Act and/or the CDFG §1600 *et seq*. of the California Fish and Game Code). In addition, the CNDDB has designated a number of communities as rare; these communities, such as coastal terrace prairie, are given the highest inventory priority (Holland 1986, CDFG 1999). Within the project site, two communities are classified as rare, the Monterey pine forest and the costal terrace prairie.

4.1.1 - Monterey Pine Forest

Monterey pine forest is dominated by Monterey pine (*Pinus radiata*) with continuous or intermittent canopies reaching 30 meters. Coast live oak (*Quercus agrifolia*) is usually the next most abundant species. This community typically occurs on well-drained sandy soils within the limits of the summer marine fog zone up to 300 m in elevation. This community intergrades with other coastal closed-cone coniferous types (Holland 1986), such as upland redwood forest or Monterey cypress forest and bishop pine forest. Three natural areas of Monterey pine occur in the state, at Año Nuevo in San Mateo and Santa Cruz counties, Cambria in San Luis Obispo County and the Monterey Peninsula. There is a high level of variation in species composition among these three areas. (Sawyer and Keeler-Wolf 1995). It is hypothesized that there is a link between certain marine terrace conditions and the domination of Monterey pine that is typically a secondary species in other communities (Sawyer and Keeler-Wolf 1995).

Due to the limited distribution of native stands, the California Native Plant Society (CNPS) has designated these native Monterey pines as sensitive plants (list 1B) which are considered rare by the Natural Diversity Data Base. Several threats have been identified that imperil these stands. The CNPS cites genetic contamination, development and fragmentation as the key threats to these remaining native stands. Another threat is pine pitch canker (*Fusarium circinatum*), a fungal pathogen, that enters the tree through a wound caused mechanically, such as hail, wind stress and various animals (including insects feeding) (University of California Berkeley 2003). *Pinus radiata* is highly susceptible to this disease. The spores are spread by wind and rain splash, also by insects such as bark beetles. The fungus can grow and persist in soil and may sometimes act as a root infecting pathogen. It is also found in seeds and on seed coats. The fungus is able to survive for more than 12 months in logs, in resin impregnated tissues.

On site, the majority of native Monterey pines occur at elevations greater than 300 feet above sea level. A total of 34.90-acres of Monterey pine/oak woodland forest has potential to be impacted through loss of individuals caused by construction of roads, installation of utilities and creation of building pads (Whitson Engineers 2003). The loss of individuals may increase the potential spread of pine pitch canker through the forest.

A supplemental forestry report, prepared in 2002, analyzed the presence and potential for pitch canker disease to occur on site (Staub 2002). The Monterey pines evaluated within the 891-acre study area revealed only 7 individuals with visible symptoms (Staub 2002). All trees with symptoms were located in the lower portion of the property (below 250 feet), a finding that is consistent with research stating that pitch canker disease severity is highest at sea level (Staub 2002). For example, Jacks Peak Regional Park, located higher than 600 feet above sea level, has no trees with pitch canker symptoms (Staub 2002).

4.1.2 - Coastal Terrace Prairie

Coastal terrace prairie, considered rare by the CNPS, is typically comprised of dense, tall grassland typically dominated by both sod- and tussock-forming native perennial grasses. It is naturally patchy in occurrence and variable in composition; reflecting differences in slope aspect, soil texture and moisture availability. This vegetation community occurs on sandy loam soils of marine terraces near the coast and is restricted to cooler, more mesic sites within the zone of fog incursion. Although coastal terrace prairie consists of many of the same native species that comprise valley/foothill needlegrass grassland, annual species are less important in community structure. It is distributed from Santa Cruz County to Oregon (Holland 1986) and its range closely matches that of northern coastal scrub (Holland and Keil 1990), with which it is generally associated. Coastal terrace prairie similarly has a long history of human disturbance and it continues to be threatened by including intensive

livestock grazing, the introduction of invasive exotic species, changes in the fire regime and development.

Within the 891-acre September Ranch Subdivision project area, 18.55-acres of grasslands, including native terrace prairie and non-native grasslands, have potential to be impacted by construction of roads, installation of utilities and creation of building pads.

4.2 - SPECIAL-STATUS PLANT SPECIES

Special-status plant species include those listed as Endangered, Threatened, Rare or Candidates for listing by the USFWS (2003), the CDFG (2003a) and the CNPS (Skinner and Pavlik 1999). The CNPS listing is sanctioned by the CDFG and serves essentially as their list of "candidate" plant species. The CDFG has also compiled a list of "Special Plants" (CDFG 2003a) that include California Special Concern species. These designations are given to those plant species whose vegetation communities are seriously threatened and those wildlife species whose breeding populations are in serious decline. Although these species may be abundant elsewhere they are considered to be at some risk of extinction in California. Although Special Concern species are afforded no official legal status under FESA or CESA, they may receive special consideration during the planning stages of certain development projects and adverse impacts may be deemed significant under the California Environmental Quality Act (CEQA).

Based on a review of the California Natural Diversity Data Base (CNDDB 2003), and general knowledge of the flora of Monterey County, a total of 23 special-status plant species were determined to have at least some potential for occurring in the project region (Appendix A). Focused surveys were conducted for 8 species during their appropriate survey periods.

Below is a description of those species that have been reported within the Seaside and Monterey topographic quadrangles, or within habitats present on site, and their potential for occurrence in the September Ranch Subdivision project area.

4.2.1 - Federally and State Threatened and Endangered Plant Species

It was initially determined that 8 sensitive plant species had the potential to occur on the site, including Monterey pine (Pinus radiata), Hickman's Onion (*Allium hickmani*), Gairdner's yampah (*Perideridia gairdnen*), Yadon's piperia (*Piperia yadoni*), Santa Cruz clover (*Trifolium buckwestorium*), Pacific Grove clover (*Trifolium polydon*), small-leaved lomatium (*Lomatium parvifolium*) and Adder's tongue (*Ophioglossum califomicum*) (Denise Duffy and Associates 1998).

Other federally-listed species addressed in this Revised EIR include Monterey spineflower (*Chorizanthe pungens* var. *pungens*).

Surveys were conducted in 1995 to determine the presence or absence of Yadon's piperia, Gairdner's yampah, and Hickman's onion (Denise Duffy and Associates 1998). Since the project site is occasionally grazed, surveys were conducted in March before the blooming period of these species but when characteristic vegetative parts would have been identifiable. Neither Yadon's piperia or Hickman's onion were observed during the survey and it was concluded that neither would be expected to occur on the project site based on habitat characteristics. The small-leaved lomatium (*Lomatium parviflorum*) and Adders tongue (*Ophioglossum californicum*) were observed on site (Denise Duffy and Associates 1998).

Although survey results in March 1995 were negative for Gairdner's yampah, Santa Cruz Clover and Pacific Grove clover, subsequent surveys were conducted in April 1995, also with negative results (Denise Duffy and Associates 1998). Surveys conducted in May 1995 revealed a Pacific Grove clover and there is a possibility for isolated occurrences for the species on site (Denise Duffy and Associates 1998).

A reconnaissance-level assessment of Yadon's piperia was conducted throughout its range in the late/winter/spring months in 1996. Approximately 65 individuals of the species were reported on old road cuts in the Monterey pine forest/chaparral ecotone on the slopes below Jacks Peak. While the record of this location is not specific, the observation of Yadon's piperia on the slopes of Jacks Peak in the vicinity of the September Ranch Subdivision project site is not surprising given the general trend of increased numbers of Yadon's piperia observed due to greater survey efforts.

The USFWS comments on September Ranch Subdivision EIR included a note that Yadon's piperia has been reported on or near the project site (USFWS 1997). This reference may be addressing the Yadon's piperia surveys conducted by Mr. David Allen in 1995 and 1996. Surveys were conducted throughout its known distribution and the species was found at a site in the vicinity of Jacks Peak; however, the precise location was not recorded. A project survey in 1995 did not detect any individual plants within the project area.

A total of 3 special-status plant species were observed on site: small-leaved lomatium, California adder's tongue and Monterey pine. Although focused surveys were conducted for the remaining 5 species, Hickman's onion, Gairdner's yampah, Yadon's piperia, Santa Cruz clover, Pacific Grove clover and Monterey clover, none of these species were observed. Repeated surveys by qualified botanists covering a representative area over a range of times and conditions on September Ranch

Subdivision has provided a level of effort that is required for a CEQA analysis and is sufficient to allow for the following conclusions:

1. The federally-listed plants identified above were not found on site during the surveys and therefore none would be impacted by the project;
2. One population of Pacific Grove clover (CDFG Rare) is located on site;
3. Native Monterey pine forest is present on site and approximately 41-acres of Monterey forest/oak woodland will be impacted by the September Ranch Subdivision project;
4. California adder's tongue and small-leaved lomatium (CNPS List 1B) have been found on site.

An additional species that has not been addressed is the **Monterey spineflower** (*Chorizanthe pungens* var. *pungens*), federally-listed Threatened in 1994, and a CNPS List 1B species. This spineflower occurs in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils at an elevation range of 3-450 meters. The blooming period for this annual herb is between April and June. No surveys for this species have been conducted to date.

4.2.2 - Other Special-Status Plant Species

Several plant species were identified as potentially occurring on site since the publication of the Final EIR. These species include Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), Monterey manzanita (*Arctostaphylos montereyensis*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), Hutchinson's larkspur (*Delphinium hutchinsoniae*), Eastwood goldenbush (*Ericameria fasciculate*), and Kellog's horkelia (*Horkelia cuneata* ssp. *sericea*) (CDFG 2003E).

Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), a CNPS List 1B species, occurs in various and somewhat xeric communities, such as closed-cone coniferous forest, chaparral, cismontane woodland and coastal scrub on sandy at an elevation range between 85-300 meters. The blooming period for this evergreen shrub is between January and June. No surveys for this species have been conducted to date.

Monterey manzanita (*Arctostaphylos montereyensis*), a CNPS list 1B species, occurs in maritime chaparral, cismontane woodland, and coastal scrub communities on sandy soils at an elevation range of 30-730 meters. The blooming period for this evergreen shrub is between February and March. No surveys for this species have been conducted to date.

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), a federal Species of Concern and CNPS List 1B species, occurs in valley/foothill grasslands and alkaline soils. This perennial herb blooms in June through November. This species was assessed (Zander Associates 2002) for occurrence but no focused surveys were conducted.

Hutchinson's larkspur (*Delphinium hutchinsoniae*), a CNPS List 1B species, occurs in broadleaf upland forests, chaparral, coastal prairie and coastal scrub. This perennial herb blooms in March and June. This species was assessed for occurrence (WESCO 1981) but no focused surveys were conducted.

Eastwood goldenbush (*Ericameria fasciculate*), a CNPS List 1B species, occurs in closed-cone coniferous forest, maritime chaparral, coastal dunes and coastal scrub on sandy soils in openings of the scrub at an elevation range of 30 - 275 meters. The blooming period for this evergreen shrub is between July and October. No surveys for this species have been conducted to date.

Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*), a CNPS List 1B species, occurs in closed-cone coniferous forest, maritime chaparral, coastal scrub on sandy or gravelly soils in openings of the scrub at an elevation range of 10-200 meters. This perennial herb blooms between April and September. No surveys for this species have been conducted to date.

4.3 - SPECIAL-STATUS WILDLIFE SPECIES

Special-status animal species include those listed by the USFWS (2003) and the CDFG (2003b, 2003d). The USFWS officially lists species as either Threatened, Endangered, or as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act (e.g., bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA) and state protection under CEQA Section 15380(d). In addition, many other species are considered by the CDFG to be species of special concern; these are listed in Remsen (1978), Williams (1986), and Jennings and Hayes (1994). Although such species are afforded no official legal status, they may receive special consideration during the planning stages of certain development projects. The CDFG further classifies some species under the following categories: "fully protected," "protected fur-bearer," "protected amphibian," and "protected reptile." The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFG, "fully protected" indicates that a species can be taken for scientific purposes by permit only.

A total of 32 special-status animal species have been recorded in the region or may be present within the project area. A complete list of wildlife species, including their potential to occur on site, their legal status and habitat affinities, is included in Appendix B of this report. Appendix C of this report

provides the federal and state listing definitions. Of these, eight avian species are considered to have a low potential to occur on site, based on habitats present on site.

Based on an assessment of habitat types on the project site and on review of NDDB records, Mori (1995b) identified 10 sensitive wildlife species with potential to occur in the site vicinity. These species include; Smith's blue butterfly (*Euphilotes enoptes smithii*), golden eagle (*Aquila* chrysaetos), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*A. cooperii*), white-tailed kite (*Elanus leucurus*), purple martin (*Progne subis*), pallid bat (*Antrozous pallidus*), small-footed myotis (*Myotis ciliolabrum*), fringed myotis (*M. thysanodes*), long-legged myotis (*M. volans*), and Yuma myotis (*M. yumanensis*). In addition to these species, the Monterey dusky footed woodrat (*Neotoma fuscipes luciana*) could occur within the Monterey pine/coast live oak woodland on the site. Appendices A and B of this report list the sensitive plant and wildlife species potentially occurring on the site.

The following is a discussion of species having potential to occur on site and/or are species that are prominent in today's regulatory environment, such as the California red-legged frog. This document excludes impacts to species that may occur in the region if no habitats for that species occurs on site.

4.3.1 - Federally Threatened and Endangered Animal Species

Smith's Blue Butterfly (*Euphilotes enoptes smithi*). A federally Endangered species, historically ranging along the coast from Monterey Bay south through Big Sur to near Point Gorda, and occurring in scattered populations in association with coastal dune, coastal scrub, chaparral, and grassland habitats (Scott 1986). They spend their entire lives in association with two buckwheat plants (*Eriogonum parviflorum* and *E. nudum*). *E. parviflorum* is the larval plant and *E. nudum* is the adult host plant (Arnold 1996). Emerging in late summer and early autumn, the adults mate and lay eggs on the flowers of these host plants. The eggs hatch shortly thereafter and the larvae begin to feed on the flowers of the plant. Following several weeks of feeding and development, the larvae molt to a pupal stage, beginning a ten month period of transformation. The following year, as the *Eriogonum* again flower, the new adults emerge.

Individuals of dune buckwheat, a significant food source for the Smith's blue butterfly, were found within the developable portions of the project site and were mapped during the March 1995 survey. Scattered plants of the dune buckwheat host plant were observed on the project site primarily along an existing road cut on the eastern half of the project site, but mainly occurred along the existing access roads as single plants or small clumps of individuals. One population of buckwheat at the northwest comer of the site was located in an area away from the access road.

Approximately 28 locations of *E. parviflorum* were mapped on site in 1995 (Entomological Consulting Services 1996). In 2001, these sites were reduced to 16 locations (Entomological Consulting Services 2001). These locations occur on Redtail Lane, Black Sage Lane, Meadowlark Road, West September Ranch Road, East September Ranch Road, and in parcels 98, 95, 73, 40, 39, 26, 27, 20, and 9. However, three years of surveys conducted over a 7-year period revealed no adults or larvae on site (Entomological Consulting Services 2001).

South/Central Coast steelhead (*Oncorhynchus mykiss irideus*). Ecologically Significant Unit, federally listed Endangered, encompasses coastal populations of winter steelhead from three tributaries to Monterey Bay (Pajaro, Salinas and Carmel Rivers) in the small streams of the Big Sur Coast and small intermittent streams if San Luis Obispo County, south to Point Conception (Moyle 2002). Winter steelhead adults enter streams from the ocean when rains have increased the stream flows (Moyle 2002). Spawning typically occurs in tributaries to mainstream rivers, after which they return to the ocean. A key characteristic of all breeding streams is cool temperatures, typically between 0° Celsius (winter) and 26°-27° C (summer) (Moyle 2002). Higher temperatures may reduce oxygen levels that are not population sustaining. Different size classes require different microhabitats that are defined by depth, water velocity, substrate and cover (Moyle 2002). For example, fry typically concentrate in areas with low velocity and shallow depths (<50cm), juveniles occur in faster and deeper (50-100 cm) areas with more cover.

This species is known to occur in the Carmel River (CDFG 2003E). No suitable tributaries that could be used as migratory corridors for this species occur between the project site and the Carmel River. No impacts, direct or indirect, to this species are expected from the September Ranch Subdivision project based on the lack of water drawdown of the Carmel River.

California red-legged frog (*Rana aurora draytonii*). A federally listed Threatened species and California Special Concern species, and a Fully Protected Species under Fish and Game Code 5050. It breeds primarily in ponds, but will also breed in slow moving streams, or deep pools in intermittent streams. Inhabited ponds are typically permanent, at least 2 feet (0.6 meters) in depth, and contain emergent and shoreline vegetation. Sufficient pond depth and shoreline cover are both critical, because they provide frogs with a means of escape from predators (Stebbins 1985, CDFG 1988, Tatarian, in preparation). Additionally, emergent vegetation is necessary for the deposition of eggs. The breeding period for CRFs begin during heavy rains, from early to late winter, usually November through early May. Larvae mature in 11 to 20 weeks. Non-breeding CRF have been found in both aquatic and upland habitats.

This species is known to occur in the Carmel River (CDFG 2003E). Based on the development between the Carmel River and the September Ranch Subdivision project site, no suitable movement

corridors occur between the river and the project site. No suitable breeding habitat occurs on site. No impacts, direct or indirect, to this species are expected from the September Ranch Subdivision project based on that lack of water drawdown of the Carmel River.

4.3.2 - Other Special-Status Animal Species

California spotted owl (*Strix occidentalis occidentalis*). A federal and state species of concern, occurs in conifer forests and oak woodlands, is confined to the state of California, primarily in the Sierra Nevada, and the south Coast, Transverse and Peninsular ranges (Verner, et al. 1992; Tietje 1993). This species may also occur in the denser riparian/hardwood forests, especially in the foothills bordering the eastern portion of the Central Valley (Verner, et al. 1992). Nesting sites occur in pre-existing cavities or on natural platforms, such as mistletoe, and are predominantly found in oak woodlands that are in or near riparian areas within steep sided canyons, at elevations from 800-6,000 feet. Nest trees typically have a diameter at breast height (dbh) of 45 inches in Sierra conifer forests (Verner, et al. 1992). Foraging habitat seems to be in areas of 50 percent canopy and nesting areas occur in canopies of 70 percent. Dominant nesting tree species are blue oak, interior live oak, California bay, California buckeye, grey pine and California sycamore that often exceed 20 inches in diameter. Only two or three species make up the diet, including northern flying squirrels, dusky-footed woodrats, bushy-tail woodrats and rabbits (Verner, et al. 1992).

The closest reported nesting area is Los Padres National Forest, located approximately 11 miles southwest of the study area. No sightings have been reported in Jack Peak County Park. The potential for occurrence is low based on the elevation of the site.

Long-eared owl (*Asio otus*). A California species of concern, nests in coniferous and mixed coniferous-deciduous forests, near water. Nests are usually abandoned nests of other species, such as crows, and are placed in the tree between 30-40 feet in height. This species feeds primarily on rodents, although small birds will be taken opportunistically.

No reported sightings occur within or adjacent to the study area. There is a moderate potential for this species to nest on site.

Golden eagle (*Aquila chrysaetos*). The golden eagle is a Species of Special Concern as designated by CDFG and the focus is on protecting the species nesting habitat. Golden eagles require expansive areas of open space, such as grasslands and open wooded habitats, for foraging and nest in nearby woodlands or cliffs. Nests are commonly built at sites with a good view of the surrounding landscape, such as on cliffs, in secluded trees, and other high vantage points. Golden eagles are very sensitive to disturbance at nesting sites. The golden eagle is regularly sighted along the foothills of the eastern

Salinas Valley, Elkhorn Slough, around Lake San Antonio, and in the Ventana Wilderness of the Los Padres National Forest (Mori 1995). A golden eagle nest was recorded approximately 0.5 miles north of the Canada Woods parcel east of the project site (BioSystems 1991).

No golden eagles were observed on the project site by Mori during the November 1994 surveys; however, the Monterey pine/coast live oak forest on the project site may provide suitable nesting habitat for this species.

Sharp-shinned hawk (*Accipiter striatus*).The sharp-shinned hawk is also a Species of Special Concern whose nesting habitat is of primary concern. This species typically nests in coniferous forests of mountainous regions and usually builds its nest in dense pole-sized stands that are cool, moist and near open foraging areas. Sharp-shinned hawks commonly prey on small perching birds but are also known to eat small mammals and reptiles (CDFG 1990). Sharp-shinned hawks are locally distributed and are rare breeders in the forested mountainous regions of Monterey County (Roberson 1985).

Mori observed one sharp-shinned hawk foraging on the project site during the November 1994 surveys. Although likely an uncommon visitor during migration and in winter, there is the possibility the species may nest on the site in the more secluded, moist stands of Monterey pine/coast live oak forest.

Cooper's hawk (*Accipiter cooperi*). Protection of nesting habitat for the Cooper's hawk (*Accipiter cooperi*), a Species of Special Concern, is also of primary concern to CDFG. Cooper's hawks are typically found)n oak woodlands and coniferous forests located near water. They prey primarily on small birds but will also consume small mammals, reptiles, and amphibians. According to Roberson (1985), many more Cooper's hawks migrate through Monterey County than breed. The highest occurrence of nesting sites in the County occurs in the Carmel Valley watershed where heavily wooded canyons provide secure nesting habitat.

No Cooper's hawks were observed on the project site during the surveys conducted in November 1994 and January 1995 by Mori. However, the Monterey pine-coast live oak forest on the project site provides suitable nesting habitat for this species.

Purple martin (*Progne subis*). The purple martin is a Species of Special Concern (nesting habitat protected). Purple martins are swallows that were once widespread in Monterey County but have declined due to the introduction of the European starling (Roberson 1985). The species generally nests in large trees, usually dead, with holes dug by woodpeckers. Migrating purple martins are found

in a variety of habitats, including grasslands and marshes. In Monterey County, this species is a locally uncommon resident however it is known to regularly breed in the Big Sur region of the Los Padres National Forest. The purple martin has also been observed nesting under the Highway 1 bridge at Tone Canyon.

No purple martins were observed on the project site by Mori during the November 1994 and January 1995 surveys. However, there is a potential the species could nest in dead pines or oaks on the site that contain woodpecker holes.

White-tailed kite (*Elanus leucurus*). The white-tailed kite is considered a "fully protected species" by CDFG meaning that it cannot be taken or possessed at any time. White-tailed kites are typically found in oak savanna and agricultural habitats with occasional trees. The species feeds primarily on voles and nests in trees near foraging habitat. White-tailed kites are fairly common in open country along the coast and inland in the Salinas and Carmel Valleys (Roberson 1985). The nesting season runs from January through July.

No white-tailed kites have been observed on the project site but there is potential nesting habitat for the species in the Monterey pine/coast live oak woodland forest stands adjacent to open grasslands.

Passerines: Several species of passerines (perching birds) may occur on site in the Monterey pine/oak woodland forest, including hairy woodpecker, Stellar's jay, brown creeper, and pygmy nuthatch. Other species, such as the blue-gray gnatcatcher, wrentit, Bewick's wren, may potentially use the coastal sage scrub for nesting. The breeding season typically occurs between March 1 and July 31.

Pallid bat (*Antrozous pallidus*). The pallid bat, a Species of Special Concern, is commonly found in a variety of habitats in lowland areas. The pallid bat is not considered a migratory species although it will move locally on a seasonal basis (Jameson and Peeters 1988). Pallid bats use buildings, rock crevices, caves, mines, and hollow trees for day and night roosts (CDFG 1986). Feeding bats and males roost singly. Maternity roosts are colonial and are maintained from spring through summer. Once the young bats have fledged, the adults leave the maternity roosts. Pallid bats commonly glean moths from leaves and forage on the ground for insects, most notably Jerusalem crickets. Pallid bats are known to occur on Rancho San Carlos (Habitat Restoration Group, et al. 1991), which is within the vicinity of the project site.

No specific surveys for bats have been conducted on the project site. Potential roost sites for the pallid bat may occur in the lower forest stand where large cavity-bearing oaks and snags exist.

Myotis bats. Several bat species of the genus Myotis that could occur on the project site are federal Species of Concern. The small-footed myotis (*Myotis ciliolabrum*) occur in a variety of habitats in relatively arid uplands and forages in open forests and brushy areas. The fringed myotis (*Myotis thysanodes*), are commonly found in valley foothill hardwood forests and forages primarily in open areas. The long-legged myotis (*Myotis volans*) are found in woodlands and forests and typically forages over chaparral and coastal scrub. The Yuma myotis (*Myotis yumanensis*) prefers open woodlands and grasslands near water. These four species of myotis bats are known to occur on Rancho San Carlos (Habitat Restoration Group, et al. 1991).

Other tree roosting bat species that are federal Species of Concern include long-eared bat (*Myotis evotis*) and Yuma myotis (*Myotis yumanensis),* which may roost in the large trees present within the Monterey pine/coast live oak forest, with some species, such as the fringed myotis, being heavily dependent on tall conifer snags in early decay stages for day roosts (Weller and Zabel 2002). For this analysis, red bat (*Lasiurus blossevillii*), another tree roosting species, is also considered in this analysis, as it is currently under evaluation by the CDFG.

No site specific surveys for myotis bats were conducted. However, Mori concluded that suitable roosting habitat for the different Myotis species is present on the site.

Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*). A California Special Concern species, is restricted to Monterey County and Northern San Luis Obispo County. The Monterey dusky-footed woodrat uses habitats with moderate to dense cover and abundant dead wood for nest construction. This nocturnal species is active year round, and forages on fungi, flowers, grasses and acorns supplementing their diet. Breeding occurs from December to September with a peak in mid-spring (Zeiner, et al. 1990).

Although no signs of dusky-footed woodrat have been reported for the project site, the species could use the Monterey pine/coast live oak woodland forest on the site.

SECTION 5:
IMPACTS AND MITIGATION MEASURES

5.1 - SIGNIFICANCE CRITERIA

The significance criteria identified below are based on the CEQA guidelines, and interpretation of local plans and policies. For the purposes of this EIR, three principal components, and the interrelationship of these components, were used in determining the significance of the impact, including:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state or federally listed species would be considered significant because the species is at low population levels and is presumed to be susceptible to disturbance. Conversely, a common habitat such as non-native grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of extensive vegetation) would be required for it to be considered a significant impact.

Based on these three components, the September Ranch Subdivision project has the potential to produce three different types of project-related impacts to biological resources: direct impacts, indirect impacts, and cumulative impacts. Direct impacts may be short-term or long-term, and occur when biological resources are altered, destroyed, or removed during the course of project construction. Such direct impacts include removal of vegetation by grading or filling, loss of individuals due to habitat clearing and/or construction-related mortality, loss of foraging, nesting or burrowing habitat for wildlife species, and habitat disturbance which results in unfavorable substrate conditions to allow natural regeneration of the vegetation.

Indirect impacts may also be short-term or long-term, and occur when project-related activities affect, in an indirect manner, biological resources (e.g., increased noise, erosion, sedimentation, and dust).

5.1.1 - California Environmental Quality Act

Cumulative impacts are defined under CEQA as "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." Cumulative impacts are the sum of all impacts that occur throughout the project area or region, from this and other projects and include cumulative loss of foraging habitat, habitat fragmentation, and loss of movement corridors.

Impacts resulting from any project are deemed to be significantly adverse if they:

- Substantially affect a rare or endangered species of animal or plant or the habitats of the species;
- Impact high quality or undisturbed biological communities, vegetation associations, and habitats that are restricted on a regional basis or serve as a wildlife corridor or buffer;
- Interfere substantially with the movement of any resident or migratory fish or wildlife species;
- Impact biological resources of scientific interest because they are at their physical or geographic limits or represent an unusual variation in a population or community; or
- Impact habitats that are key to the maintenance of localized plant and animal populations, even if these habitats are not biologically significant on a regional scale (i.e., impacts would be locally, but not regionally significant).

Impacts are deemed to be adverse but non-significant if they,

- Impact habitats and species which are common and widespread in the region and the state;
- Do not significantly change or stress the resources on a long-term basis as a result of construction, operation or maintenance of a proposed project; and
- Impact biological resources that are already disturbed or lack importance in the preservation of local or regional native biological diversity and productivity.

CEQA Guidelines Sections 15206 and 15380 were also used to determine impact significance. Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

A species may be treated as rare or endangered even if it has not been listed under CESA or FESA. Species are designated endangered when it survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, disease or other factors.

5.1.2 - Other Statutes, Codes and Policies Affording Limited Species Protection

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the state Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of thereto." Construction disturbance during the bird breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG. Any loss of fertile eggs, nestling raptors, or any activities resulting in nest abandonment would constitute a significant impact. This approach would apply to red-tailed hawks, red-shouldered hawks, American kestrels, owls, and other birds of prey.

5.1.3 - Local Plans and Policies

Monterey County General Plan

Policy ER-2.5 Setbacks - Within rural Centers that contain sensitive aquatic habitat, new development proposals shall in accordance with state and federal regulations be required to maintain a buffer or setback that is undeveloped and maintained as natural vegetation. Setbacks should have a width of:

- 50 feet from the vegetated edges or banks of intermittent streams;
- 100 feet from the upland vegetation edge of any wetland; and
- 200 feet from the top of a defined bank of perennial streams and rivers and vegetated edge of designated habitat corridors, vernal pools, and other water bodies; which is the greater distance, or as permitted by the federal and state regulatory agencies.

Policy ER-3.1 Native Vegetation and Endangered Plant Communities - The County is firmly committed to protect, maintain, restore and enhance sensitive plant communities, including:

- All areas containing rare, threatened and endangered plant species,
- Costal strand,

- Maritime chaparral,
- Chaparral, Monterey Pine and Cypress Forests,
- Redwood forests,
- Perennial native grasslands,
- Oak Woodlands and Savannas,
- Sycamore alluvial woodland, and
- Wetlands, marshes, vernal pools, riparian forests, willow seeps and wet meadows.

Policy ER-3.3 Mitigation Measures to Avoid Disturbance to Sensitive Plant Communities - The County shall seek to minimize disturbance to sensitive plant communities by requiring that new proposed development use a building envelope approach. This approach identifies suitable building areas within the land parcel and shall be used to ensure the proposed development projects are located on those portions of land that have the least impact to the sensitive plant communities. Mitigation measures should demonstrate that disturbance or damage to any sensitive plant communities is mitigated or offset to a level that results in "no net loss" of plant species. The loss of any sensitive plants must be mitigated with: replacement, removal of affected plants to an adjacent site is feasible by a state or federal regulatory wildlife agency, restoration, maintenance and enhancement of affected plant communities, or the purchase and dedication of conservation easements to a public agency or land trust of an equal or better ecological value either within the parcel or in near proximity.

Policy ER - 3.4 Native Vegetation Removal and Replacement - Where removal of native vegetation is unavoidable, each new development project sponsor shall prepare a replacement or salvage/transplant program to provide for replacement of native trees and vegetation. Replacement of native oak trees greater than six inches in diameters, measured two feet above ground level, shall be at a ratio of 5:1 (ratio of replacement trees to number of trees removed) on site. Other native tree species with a diameter greater than 6 inches are to be replaced at a ratio of 3:1 on site. The replacement program shall include maintenance and monitoring by the project sponsor for a minimum of five years, to be verified through the submittal of annual mitigation monitoring reports to the County.

Monterey County General Plan Update

7.1.1 (Carmel Valley) Areas of biological significance shall be identified and preserved as open space. Development shall occupy those portions of the land not biologically significant… or upset the natural functioning of the ecosystem in which the parcel is located. These areas include, but are not limited to, native bunchgrass stands and natural meadows.

7.2.1.2 (Carmel Valley) Existing vegetation shall be protected and only plants similar in habit, form and water requirements to native vegetation common to the valley shall be used as the predominant additional or replacement landscaping material. The existing native vegetation should be maintained as much as possible throughout the valley.

7.2.2.5 (Carmel Valley) A permit shall be required for the removal of any native oak, madrone or redwood trees with a trunk diameter in excess of 6 inches, measured two feet above ground level. Where feasible, trees removed will be replaced by nursery-grown trees of the same species and not less than one gallon in size.

5.2 - IMPACTS AND MITIGATION MEASURES

This section summarizes the potential temporary biological impacts from construction activities within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, previous documents sited in Section 6, and personal experience with biological resources of the region. Potential impacts to special-status biotic resources, namely special-status animal species may occur from the September Ranch Subdivision project.

Mitigation for these biological impacts to avoid adverse effects on the environment, are provided below, and will be outlined in several documents, including a:

- Tentative Map
- Forest Management Plan
- Open Space Management Plan
- Grassland Habitat Management Plan

These plans will not only outline how to avoid impacts to vegetation communities but also how to avoid impacts to individual species. Within each plan, the agency or person responsible for the resource management will be identified, a schedule for habitat evaluation will be provided, identification of performance standards that are to be met and, if they are not met, what adaptive management plans shall be used, and the identification of the approving agency that will sign off on the plan. For direct impacts to individuals a mitigation and monitoring plan will be developed that will identify impacts and the mitigation goals with standards of achievement and adaptive management scenarios.

5.2.1 - Source of Impact

Initial site improvements will be limited to clearing and grading for roads and other infrastructure while subsequent residential development of the site will affect lands within designated building envelopes as lots are sold and homes are constructed. For the purposes of this assessment, Zander Associates assumed that habitat values within the building envelope for each lot would be lost as a result of project build out. However, because of the placement of lots, limitations on building envelopes, and use of existing road alignments, less than 80-acres (approximately 9 percent) of the vegetation and wildlife habitat on the project site (exclusive of existing disturbed or developed areas) will be directly lost or disturbed as a result of the project. Over 810-acres out of 891-acres of the site will remain relatively undisturbed as either common or private open space. Furthermore, removal of trees and other native vegetation within the building envelopes themselves will be limited to comply with Monterey County regulations and will require County approval prior to issuance of individual building permits. A breakdown of these effects on each plant community/habitat type is provided below.

5.2.2 - Direct Effects

5.2.2.1 Impact: A total of 71.37-acres of native vegetation communities, including Monterey pine forest, coastal scrub, and grasslands, will be impacted from development within the September Ranch Subdivision project area (Table 2). The following mitigation measures will reduce this impact to less-than-significant.

Table 5-1: Total Acreage of Vegetation Communities on Site and Impacted Acreages

Vegetation Community	Total Acreage	Impacted Acreage
Monterey Pine/Coast Live Oak Forest	426.00	34.90
Coastal scrub	378.00	17.92
Grassland	62.00	18.55
Willow Riparian Scrub	0.77	NA
Total	**866.77**	**71.37**
Source: Michael Brandman Associates, 2004.		

5.2.2.1 Mitigation Measure: To reduce the impacts of 71.37-acres of development, the following measures are recommended:

A) Submit a Tentative Map that encompasses all the parameters outlined in the Forest Management Plan (Mitigation 5.2.2), the Open Space Management Plan (Mitigation Measure 5.2.4), and the Grassland Habitat Management Plan (Mitigation Measure 5.2.5), subject to the

review and approval of the Monterey County Planning and Building Inspection Department, that will detail the following:

i) Defines development envelopes for each residential lot to minimize vegetation removal.

ii) Identifies the potential areas for building envelopes or identifies those building envelopes that require plant surveys prior to building approval.

iii) Prohibits planting/introduction of nonnative invasive plant species (such as acacia, French or Scotch broom, pampas grass) within any portion of proposed lots, and prohibit planting/introduction of any nonnative species outside the development envelope.

iv) Development of landscape guidelines that encourage the use of native species indigenous to the area as ornamentals and prevent the use of invasive exotics.

v) Limits the use of fencing to designated development envelopes, and prohibit fencing of parcel boundaries in order to maintain areas for wildlife movement.

vi) Restricts direct disturbance or removal of native vegetation to designated development envelopes, as planned, through project covenants, codes and restrictions (CC&Rs), through a dedication of a conservation or open space easement, or other similar method. (The project applicant currently proposes dedication of scenic easements over all portions of the site outside designated development envelopes.)

iii) Establishes lot restrictions and common open space regulations that limit uses and prescribe management responsibilities in private and common open space areas beyond the building and development envelopes identified in the final map.

iv) Defines the conservation (scenic) easements dedicated to an entity acceptable to the County of Monterey. These conservation easements are legally binding use restrictions recorded on privately owned land that can provide a high degree of protection to certain areas on the property while allowing the rest of the land to be developed and used at the owner's discretion. Conservation easements to the benefit of the County of Monterey should be recorded with the sale of the lot and should run with the land regardless of the number of times the land is sold. Such easements should be set aside for as much of the private open space on the property as is feasible to guarantee the long-term preservation of the site's overall biological resource values. Examples of the types of restrictions that should be considered in these conservation easements include the following:

    a) Relinquishment of all development rights within the easement area.
    b) Maintenance of natural habitat.
    c) Pesticide use restrictions.
    d) Only compatible public recreation uses allowed within easement lands, not uses that cause disturbance to native vegetation and wildlife.
    e) Restricted trails for pedestrians, hikers and cyclists within easement lands.
    f) No vehicles of any kind allowed in easement lands except for those required by the habitat/open space manager in performance of habitat monitoring or maintenance activities.
    g) No alteration of land including grading, disking, compacting, soil removal or dumping shall be allowed unless the work is for the purpose of habitat management/restoration and authorized by the habitat/open space manager.

h) No removal of flora or fauna from the easement area including mowing or weed whacking unless authorized by the habitat/open space manager.
i) Limitations/restrictions will be placed on construction of permanent or temporary facilities (e.g., picnic tables or portable toilets) within the easement areas in accordance with the goals of the open space management program.
j) Leash laws within the easement areas must be enforced.
k) Right of inspection of the easement area by the easement holder and habitat/open space manager.

5.2.2.2 Impact: Approximately 34.90-acres (less than 10 percent) of the **Monterey pine-coast live oak forest** habitat will be directly impacted from construction of roads, utilities and building pads, including pads 6, 13-15, 19-23, 26-28, 30-71, 73,75,80-86, 88-97, 99-102-, 107-109, 113, 114. Less than 2 percent of the coast live oak trees (300 out of a conservatively estimated 15,200 trees) and less than 1 percent of the Monterey pines (610 out of a conservatively estimated 66,540 trees) (Smith 1995) that occur on the site will be removed as a result of development of roads. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.2 Mitigation: To reduce the impacts of the loss of 34.90-acres of Monterey pine-coast live oak forest the following mitigation measures are recommended:

B) Submit a Forest Mitigation and Monitoring Plan, subject to the review and approval of the Monterey County Planning and Building Inspection Department, that details the following:

i) Replacement of lost acreage at on a 3-to-1 ratio, which would require trees will be removed in sizes specified by the County.

ii) Use of Monterey pines grown from seed collected in locations bordering the tree clusters from which the trees were removed. Replanting should avoid open spaces where trees are not now found unless there is evidence of soil deep enough and of good enough quality to support the plantings.

iii) Monitoring of the tree plantings for five years or until 70 percent are successful.

iv) Provide an adaptive management scenario if the success criteria are not being met.

v) Require protection of oak and Monterey pine trees located outside designated development envelopes unless proven to be diseased or unhealthy as determined by a qualified arborist.

vi) Require tree removal permits and tree replacement for removal of any oaks that may occur as part of future lot construction, pursuant to County regulations, and require replacement of removed Monterey pine trees from on-site genetic stock.

5.2.2.3 Impact: Research has indicated that pitch canker symptoms decrease in frequency and severity at lower elevations and as distance from the coast increases (Staub 2002). September Ranch,

located 3 miles inland, supports pines at elevations greater than 350 feet. Thus, the geographic location of these native stands of Monterey pines are the least threatened by pitch canker (Staub 2002). Nevertheless, there is potential that placing development (roads, utilities, fences, clearings around homes) throughout the Monterey pine forest may fragment the forest and increase the vulnerability of the forest to pitch canker and other diseases. Mortality from pitch canker is highest in areas that have been penetrated by roads and where trees have been removed. The susceptible nature of Monterey pines to pitch canker fungus makes the pines within the project area at risk for the disease. Airborne spores of the fungus can also be spread by native insects, such as bark beetles and twig beetles. Long-distance spread of the virus can occur from transportation of infected logs, nursery stock, seeds or soil. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.3 Mitigation: There is no proven method available that will prevent pitch canker from infecting susceptible trees. To prevent the spread of the fungus into the pines on the project site, some actions can be taken to slow down the spread of the fungus, including the following:

- Delay removal, thinning operations or severe pruning until winter when beetle activity has declined if bark beetles are active in your area.
- Remove storm- or lightning-damaged pine trees as quickly as possible. Damaged pines are ideal sites for the start of bark beetle infestations.
- Debarking recently killed trees and branches with timely chipping and removal of diseased or insect infested tree material from nearby susceptible trees. In addition, all trees proposed for removal shall be removed carefully so as not to injure (including breaking nearby branches, cutting trunks, etc) adjacent trees not slated for removal. There are some Monterey pines that are resistant to the pathogen and these trees should be used as a seed-base for replanting.
- Encourage vigorous tree growth. Susceptibility to beetle attack increases with stand age and slow diameter growth.

5.2.2.4 Impact. Pine trees not slated for removal may suffer mechanical damage during site preparation and future home construction from tree removal, soil disturbance and compaction. If branches or trunks are damaged during the removal of other pines, pine pitch canker may enter the tree through a wound. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.4 Mitigation. To avoid mechanical damage to pines not slated for removal, the following measures are recommended:

- Adjacent pines to be removed will be removed individually;
- Minimize mechanical tree damage such as skinning of the trunks, partial pushovers, etc. during construction or harvesting operations. Tree damage from recent logging activities favors all kinds of bark beetles;
- Build barricades around trees to prevent mechanical damage by equipment in yard and landscape environments. Try to minimize root damage by keeping trenching and digging to a minimum;
- Maintain final soil level around tree trunks and roots at the same height as it was before construction during landscaping operations;
- Direct all drainage from developed areas away from low or flat areas near trees to prevent saturation of soils at the base of trees.

5.2.2.5 Impact: Oak trees not slated for removal may suffer mechanical damage during site preparation and future home construction from soil disturbance and compaction, including grading and filling, as well as introduction of landscaping and irrigation. If excavation occurs within the dripline or if soil underneath the oak is compacted due to grading and/or use of heavy equipment, death may occur through damage of very fine roots near the surface. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.5 Mitigation: To reduce the impacts to individual oak trees, the following mitigation measures are recommended:

C) Submit final Forest Management Plan subject to the review and approval of the Monterey County Planning and Building Inspection Department that details the following:

i) Prohibits grading, filling and all subdivision construction activity within the dripline of oak trees, where possible. Each tree or group of trees in the construction area designated to remain shall be protected by an enclosure (five foot fence), prior to the beginning of construction. The location of the fence is normally at the dripline of the tree.

ii) Develops CC&Rs that shall include measures for protection of oak trees on individual lots as part of future home construction, as well as guidelines for appropriate landscaping management to protect remaining oaks. Wherever possible, future homes should be sited outside of the dripline of any oak. Generally, irrigation should be prohibited within an area 1/3 larger than the dripline of oak trees.

iii) Directs all drainage from developed areas away from low or flat areas near trees to prevent saturation of soils at the base of trees

5.2.2.6 Potential Impact: The rate of erosion on the hillside could be increased and the nesting availability for passerines and raptors could be reduced (See impacts 5.2.2.10 and 5.2.2.11 below for further discussion on raptors and passerines), from removal of approximately 297 coast live oak trees and 607 Monterey pines (with a dbh greater than 6 inches) for roadwork and 2,085pine and 593 oaks for residential lots, inclusionary housing and detention ponds (Staub 2002). The following mitigation measures will reduce this impact to less than significant.

5.2.2.6 Mitigation Measure: To reduce the loss of individual trees, replacement plantings of 1:1 shall be conducted by planting seedlings in areas determined by a professional forester. The following recommendations are recommended (Staub 2002):

D) A tree replacement plan shall be prepared by a qualified professional forester, arborist or horticulturist, and will be subject to the review and approval of the Monterey County Planning and Building Inspection Department, that details the following:

   i) Identifies tree planting areas with suitable soils that will also fulfill project landscape plans and visual screening objectives, as feasible.

   ii) Identifies monitoring requirements, such as a site inspection at the end of the first winter after planting to confirm numbers, species of replacement, and locations of plantings. Annual inspections over 3 years shall confirm the objective of the plan, such as the survivability of the plantings, and the percentage of healthy trees.

   iii) Transplanting of on-site native seedlings within construction areas and protection of those occurring near construction areas to maintain natural diversity and adaptation.

   iv) All replacement oaks shall be of local genetic stock.

   v) All replacement pines shall be transplanted or grown from seeds collected from asymptomatic trees, within 500 feet in elevation of the plating site. Overabundant direct seeding of open pollinated pine seed or 4: planting of open pollinated seedlings is recommended of a portion of the pine replacement trees within thinning to appropriate spacing after 3 years under the direction of a professional.

   vi) Most replacement shall be of a small size (cell or one gallon) as studies have shown that small trees more readily adapt to a site and grow larger over the mid-to long-term.

5.2.2.7 Impact: Approximately 18.55-acres of coastal sage scrub will be removed during construction of infrastructure improvements and construction of houses on parcels 4,5, 7-9, 15-20, 23-26, 29, 30, 38, 40, 62, 65, 66, 68-81, 86-92, 98-100, 102, 104-108, 114-116. In the context of the overall acreage of this habitat type retained on the property (approximately 359.45-acres out of a total of 378-acres) and its relative sensitivity, this acreage reduction is a low impact. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.7 Mitigation: Implementation of the Tentative Map (Mitigation Measure 5.2.1A) that details the general open space management measures and conservation easement designations on lots, should

reduce some of the impacts to the coastal sage scrub. In addition, to reduce the impacts to coastal sage scrub, the following mitigation measures are recommended:

E) Submit final Open Space Management Plan subject to the review and approval of the Monterey County Planning and Building Inspection Department that details the following:

   i) Protection and enhancement for the long-term viability of the habitat types on-site and the plant and animal species they support.

   ii) Shall be incorporated into project documents that are passed on to homeowners. The plan should include, but not be limited to, the following:

      a) Limiting native vegetation removal and other disturbances in areas not specifically designated for buildings and other facilities to minimize losses to Monterey pine-coast live oak forest, coastal sage scrub and grassland areas with high concentrations of native species.
      b) Protection of sensitive plant species identified herein (and in subsequent studies) through sensitive design, setbacks, salvage and relocation and other means wherever feasible.
      c) Designation of trails and other directed access to/through common open space areas to reduce inadvertent habitat degradation.

5.2.2.8 Impact: Approximately 18-acres of the **grasslands** on the site lie within the project's building envelopes or roads while about 44-acres of this habitat type will remain as managed open space. Two large grassland areas near the project entrance that have been identified as areas supporting a high diversity and abundance of native wildflowers and grasses will be preserved as open space and should be actively managed to maintain existing values and enhance dominance by native plant species. Other grassland areas with a good representation of native species occur where lots and access roads are proposed. Notably in the areas of Lots 4-9, 14-26, 59-63, 66, 67, 71, 75, 78-80, 96, 97, 101, 103-119, native plant diversity was considered high. The following mitigation measures will reduce this impact to less-than-significant.

5.2.2.8 Mitigation: To reduce impacts to 17.92-acres of grasslands, the following mitigation measures are recommended:

F) Submit final Grassland Management Program subject to the review and approval of the Monterey County Planning and Building Inspection Department that addresses the following, at a minimum:

   i) Preservation, enhancement and restoration of native grasslands on the site. The Grassland Management Program shall include

   ii) Clear definition of the building footprint for each lot in the Grasslands areas, restrictions on the remainder of the lot, and

   iii) Description of the implementation of an active grassland management program for both the lots and the common open space areas.

G) In addition, the program shall describe requirements for the following:

   i) Light rotational, seasonally-timed grazing and/or appropriately timed mowing to reduce the cover of non-native annual grasses,

   ii) Preclude soil disturbance through cultivation,

   iii) Preclude the use of herbicides unless applied directly to invasive, non-native species,

   iv) Address the removal of Monterey pine seedlings in the native grasslands (either through mowing or chipping),

   v) Address restoration in areas dominated by invasive species like French broom, and

   vi) Consider the possible use of fire management on both the common open space and private open space grassland areas.

5.2.2.9 Potential Impact: Native grasslands (coastal terrace prairie) occur on the lower slopes of the study area. A total of 18.55-acres occurs within the September Ranch Subdivision project area, although it is unclear the amount of impacted acreage of native grasslands occur in each building lot. This is a less-than-significant impact with the following mitigation measures incorporated.

5.2.2.9 Mitigation Measure: To reduce the acreage of impacts to coastal terrace prairie, houses on each lot should be placed outside the natural community and conservation easements should be placed over the vegetation community. Landscape plantings shall be restricted to native plant species adapted to the summer fog incursion zone to prevent the further spread of non-native species into the native grasslands.

5.2.2.10. Potential Impact: Special status plant species may be impacted from development of roadways and buildings. Two species of manzanita, Monterey manzanita and Hooker's manzanita, both CNPS List 1B species, and Monterey spineflower, a federally listed Threatened species, have

potential to occur on site. No surveys for these species have been conducted. This is a less-than-significant impact with the following mitigation measures incorporated.

5.2.2.10 Mitigation Measure: To reduce the potential "take" of individuals the following are recommended:

- Prior to construction of roadways or individual houses, a botanical survey shall be conducted during the appropriate blooming period for each species. If individuals are observed no further action is required.
- If individuals are found a report shall be prepared, as explained in the Monterey County G.P. Policy ER 3.3, detailing the habitats affected by the project, the species potentially affected and appropriate mitigation measures to reduce "take" of individuals. Informal consultation with the USFWS will be required if Monterey spineflower are found. Mitigation may include but not be limited to avoidance of populations, restoration, maintenance, and enhancement and obtaining an Incidental Take Permit from the USFWS and notification with the CDFG.

5.2.2.11 Potential Impact: The September Ranch Subdivision project could result in the removal of nesting habitat for raptors, such as California spotted owl and Coopers hawk, especially in the Monterey pine/coast live oak forest. Disturbance during the nesting season may result in the potential nest abandonment and mortality of young. This is a less-than-significant impact with the following mitigation measures incorporated.

5.2.2.11 Mitigation Measure: To avoid "take" and/or further evaluate presence or absence of raptors, the following measures are recommended:

- Tree removal should be conducted outside the nesting season, which occurs between approximately March 1 and August 15. If grading before March 1 is infeasible and groundbreaking must occur within the breeding season, a pre-construction nesting raptor survey should be performed by a qualified biologist. If no nesting birds are observed no further action is required and grading may occur within one week of the survey to prevent "take" of individual birds that may have begun nesting after the survey. If birds are observed on site after February 1 it will be assumed that they are nesting on site or adjacent to the site. If nesting birds are observed, ground breaking will have to be delayed until after the young have fledged, as determined by bird surveys by a qualified biologist, or after the nesting season.
- The CDFG Central Coast Regional office does allow grading/or tree removal to occur if nesting birds are observed on site, providing that a 100-500-foot buffer zone is created around the observed nest. Because nests may occur in the middle of the grading area, this method is not advised.

5.2.2.12 Potential Impact: The September Ranch Subdivision project could result in the removal of potential passerine nesting habitat in the non-native grasslands, although no focused surveys for nesting passerines have been conducted within the project area. Disturbance during the nesting season may result in the potential nest abandonment and mortality of young. This is a less-than-significant impact with the following mitigation measures incorporated.

5.2.2.12 Mitigation Measure: To avoid "take" and/or further evaluate presence or absence of passerines, the following measures are recommended:

- Grading within the grasslands should be conducted outside the nesting season, which occurs between approximately March 1 and July 31. If grading before February 1 is infeasible and groundbreaking must occur within the breeding season, a qualified biologist should perform a pre-construction nesting bird survey of the grasslands. If no nesting birds are observed no further action is required and grading may occur within one week of the survey to prevent "take" of individual birds that may have begun nesting after the survey. If birds are observed on site after February 1 it will be assumed that they are nesting on site or adjacent to the site. If nesting birds are observed, ground breaking will have to be delayed until after the young have fledged, as determined by bird surveys by a qualified biologist, or after the nesting season.
- The CDFG Central Coast Regional office does allow grading to occur if nesting birds are observed on site, providing that a 75-100 foot buffer zone is created around the observed nest. Because nests may occur in the middle of the grading area, this method is not advised.

5.2.2.13 Potential Impact: Several bat species have potential to occur on site in the medium (12-19 inches in diameter) and large (>20 inches) diameter Monterey pine and coast live oak trees that are slated for removal. Of the 607 Monterey pines slated for removal, 255 are medium diameter and 118 are large diameter (Smith 1995).

5.2.2.13 Mitigation: To avoid "take" and/or further evaluate presence or absence of roosting bats, the following measures are recommended

- Snags shall not be removed without first being surveyed by a qualified bat biologist, 2-4 weeks prior to planned tree removal to determine whether bats are roosting inside the trees. If no roosting is observed, the snag shall be removed within 1 week following surveys. If bat roosting activity is observed, limbs not containing cavities, as identified by the bat biologist, shall be removed first, and the remainder of the tree removed the following day. The disturbance caused by limb removal, followed by one night interval, will allow bats to abandon the roost.

- Remove large trees (<24" dbh), or trees with cavities, between September 1 and October 30. This time period is after young are volant (flying), but before expected onset of topor (winter inactivity). Smaller trees may be removed at any time.
- If trees larger than 24" dbh, or trees with cavities must be removed outside this time period, night emergence surveys should be conducted by a qualified bat biologist, 2-4 weeks prior to planned tree removal to determine whether bats are roosting inside the trees. If no roosting is observed, the tree should be removed within 1 week following surveys. If bat roosting activity is observed, limb not containing cavities, as identified by the bat biologist, shall be removed first, and the remainder of the tree removed the following day. The disturbance caused by limb removal, followed by one night interval, will allow bats to abandon the roost.

SECTION 6:
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Appendix A: Special Status Plant Species

APPENDIX A

POTENTIALLY-OCCURRING SPECIAL-STATUS PLANT SPECIES AT THE PROPOSED SEPTEMBER RANCH PROJECT SITE

Family Name *Scientific Name* Common Name	**Status** USFWS/ CDFG/ CNPS List	**Habitat Affinities and Blooming Period/ Life Form**	**Survey Dates (see note) and Potential for Occurrence**
Apiaceae			
Lomatium parvifolium Small-leaved lomatium	-/-/4	Closed-cone coniferous forest and chaparral on serpentine soils. Blooms in May-June. A perennial herb.	**Observed** (C and D)
Perideridia gairdneri Gairdner's yampha	-/-/4	Broadleaf upland forests, chaparral Valley/foothill grassland, and vernal pools and mesic grasslands. Blooms June-October. Perennial herb.	Focused surveys conducted (C and E). None observed.
Asteraceae			
Centromadia parryi ssp. *congdonii* Congdon's tarplant	SC/-/1B	Valley/foothill grasslands and alkaline soils. Blooms in June through November. A perennial herb.	Assessed (E). Potentially occurring on site in grasslands.
Ericameria fasciculate Eastwood's goldenbush	-/-/1B	Closed-cone forests, maritime chaparral, coastal dunes and coastal scrub. Blooms July-October. Evergreen shrub.	Potentially occurring in pine/oak woodland forest.
Holocarpha macradenia Santa Cruz tarplant	FT/CE/1B	Coastal prairie, Valley-foothill grasslands often on clay soils. Blooms June-October. An Annual herb.	Potentially occurring in coastal prairie.
Malacothrix saxatalis var. *arachnoidea* Carmel Valley malacothrix	-/-/1B	Chaparral communities. Blooms in June-December. Perennial herb.	Assessed (A). Potentially occurring on site in chaparral.
Stebbinsoseris decipiens Santa Cruz microseris	-/-/1B	Broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub in open areas, sometimes on serpentine soils. Blooms April-May. An annual herb	Assessed (A). No suitable habitat present.

Family Name *Scientific Name* Common Name	**Status** USFWS/ CDFG/ CNPS List	**Habitat Affinities and Blooming Period/ Life Form**	**Survey Dates (see note) and Potential for Occurrence**
Ericaceae			
Arctostaphylos hookeri ssp. *hookeri* Franciscan manzanita	-/-/1B	Closed-cone coniferous forest, chaparral, and coastal scrub on sandy soils. Blooms February-May. An evergreen shrub.	Potentially occurring in chaparral.
Arctostaphylos manzanita ssp. *laevigata* Contra Costa manzanita	-/-/1B	Chaparral, on rocky slopes between 500 and 1100 meters in elevation. Blooms January-February. Evergreen shrub.	Potentially occurring in chaparral.
Arctstaphylos monteryensis Monterey manzanita	-/-/1B	Chaparral, cismontane woodland and coastal scrub on sandy soils. Blooms January-March. A perennial shrub.	Potentially occurring in chaparral.
Fabaceae			
Trifolium buckwestiorum Santa Cruz clover	-/-/1b	Broadleaf upland forests, Coastal prairie along the margins. Blooms May-October. An annual herb.	Focused surveys (D and E). None observed.
Trifolium polyodon Pacific Grove clover	-/CR/1B	Closed-cone coniferous forests, coastal prairies and mesic meadows. Blooms May-June. An annual herb.	Focused surveys (D and E). None observed.
Trifolium trichocalyx Monterey clover	FE/CE/1B	Closed-cone coniferous forests. Blooms April-June. An annual herb.	Focused surveys (D). None observed.
Liliaceae			
Allium hickmanii Hickman's onion	-/-/1B	Closed-cone coniferous forests, chaparral, coastal prairie, coastal scrub and Valley/foothill grasslands. Blooms April-May. A perennial herb.	Focused surveys conducted (C). Potentially occurring in chaparral.
Fritillaria liliacea Fragrant fritillary	SC/-/1B	Coastal prairie, coastal scrub and Valley/foothill grassland, often on serpentine soils.	Potentially occurring in grasslands.
Malvaceae			
Malacothamnus palmeri var. *involucratus* Carmel Valley beach mallow	-/-/1B	Chaparral and cismontane woodlands. Blooms in May-August. A deciduous shrub.	Assessed (A). Potentially occurring in chaparral.
Ophioglossaceae			
Ophioglossum californicum California adder's-tongue	-/-/4	Chaparral and Valley/foothill grasslands and margins of vernal pools. Blooms December–May. A perennial herb.	**Observed** (C and D).

Family Name *Scientific Name* Common Name	**Status** USFWS/ CDFG/ CNPS List	**Habitat Affinities and Blooming Period/ Life Form**	**Survey Dates (see note) and Potential for Occurrence**
Orchidaceae			
Piperia michaelii Michale's piperia	-/-/4	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, and lower montane coniferous forest. Blooms in May-August. A perennial herb.	Potentially occurring in coniferous forest.
Piperia yadonii Yadon's piperia	FE/-/1B	Coastal bluff scrub, closed-cone coniferous forest, maritime chaparral on sandy soils. Blooms May-August. A perennial herb.	Focused surveys (C and E). None found.
Pionaceae			
Pinus radiata Monterey pine	-/-/1B	Closed-cone coniferous forests.	**Observed** (A-E).
Polygonaceae			
Chorizanthe pungens var. *pungens* Monterey spineflower	FT/-/1B	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley/foothill grasslands on sandy soils. Blooms April-June. Annual herb.	Potentially occurring in grasslands. No surveys have been conducted.
Ranunculaceae			
Delphinium hutchisoniae Hutchinson's larkspur	-/-/1B	Broadleaf upland forests, chaparral, coastal prairie and coastal scrub. Blooms March-June. A perennial herb.	Assessed (A). Potentially occurring on project site.
Rosaceae			
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	-/-/1B	Coastal scrub and closed-cone coniferous forest on clay and serpentine seeps. Blooms June-August. A perennial herb.	None: no suitable soils on site.

Note: A=2/20/1981 (Wesco 1981)
B=11/1994 & 1/1995 (Mori 1995a)
C=3/1995 (Mori 1995b)
D=4/1995, 5/1995, 6/1995 (Zander 1995)
E=4/2001, 5/2001 & 8/2001 (Zander 2002)

Explanation of sensitivity status codes is provided in Appendix C.

Appendix B: Special Status Wildlife Species

APPENDIX B

POTENTIALLY-OCCURRING SPECIAL-STATUS WILDLIFE SPECIES AT THE PROPOSED SEPTEMBER RNACH PROJECT SITE

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Invertebrates			
Danaus plexippus monarch butterfly	-/*	Roosts during winter migration in dense stands of large trees such as eucalyptus and Monterey pines that provide shelter from the wind. Roosts in groves close to nectar and water sources.	**Low**: Suitable habitat on site but not occupied
Euphilotes enoptes smithi Smith's blue butterfly	FE/-	Requires two species of buckwheat plants; *Eriogonum parviflorum* for larval feeding, and *E. nudum* for the adult feeding	**None**: 3 surveys over 7 years with negative results.
Fish			
Onchorhynchus mykiss steelhead - Central California Coast ESU	FT/-	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Occurs in 3 tributaries to Monterey Bay (Pajaro, Salinas and Carmel Rivers), in the small streams of the Big Sur Coast and small intermittent streams in San Luis Obispo County, south to Point Conception.	**None**: No suitable habitat present n site.
Amphibians			
Ambystoma californiense California tiger salamander	PT/CSC	Breeds in temporary or semi-permanent pools. Seeks cover in rodent burrows in grasslands and oak woodlands.	**None**: no suitable breeding or terrestrial habitat.
Anniella pulchra pulchra silvery legless lizard	SC/-	Inhabits sparsely vegetated areas on beaches and in chaparral, oak woodlands and riparian. Needs loose soils for burrowing (sand, loam or humus), moisture, warmth and plant cover. Burrows in washes, dune sand and loose soils at the base of slopes or in intermittent streams. Forages in leaf litter during the day, but may emerge on the surface at dusk or night.	**None**: no suitable breeding or terrestrial habitat on site.
Rana aurora draytonii California red-legged frog	FT/CSC	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland areas especially during the wet winter months.	**None**: no suitable breeding or terrestrial habitat on site.

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Reptiles			
Clemmys marmorata marmorata western pond turtle	SC/CSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying.	**None**: no suitable breeding or terrestrial habitat on site.
Birds			
Accipiter cooperi Cooper's hawk (nesting site only)	MB/CSC	Nests primarily in deciduous riparian forests. May also occupy dense canopied forests from gray pine-oak woodland to ponderosa pine. Forages in open woodlands.	**Low**: suitable nesting habitat present.
Accipiter striatus sharp-shined hawk (nesting site only)	MB/CSC	Dense canopy pine or mixed conifer forest and riparian habitats. Water within one mile required.	**Moderate**: suitable nesting habitat on site.
Ammodramus savannarum Grasshopper sparrow	MB/-	Typically found in tall, dense grass, nesting on the ground at the base of grass tuft.	**Moderate**: suitable nesting habitat on site.
Aquila chrysaetos golden eagle (nesting/wintering sites only)	MB/CSC/ -	Forages in a variety of habitats including grasslands, chaparral and oak woodland supporting abundant mammals. Nests on cliffs and escarpments and tall trees.	**None**: no suitable nesting habitat present on site.
Asio otus long-eared owl	MB/CSC	Breeds mainly in dense coniferous or mixed woodland, including riverine woodland belt. Nests in large previously used nest of another bird species or squirrel. Nests up to 10-29 ft in height, more rarely on ground or among shrubby growth.	**Moderate**: suitable nesting habitat present on site.
Brachyramphus marmoratus Marbled murrelet	FT/SE	Nests in old growth forests in Santa Cruz and San Mateo counties, specifically in mature conifer forests, including Douglas-fir, western hemlock, Sitka spruce, coastal redwood and mountain hemlock, with open crown canopies or on slopes to provide easy nest access, and large limbs in trees. Can migrate up to 20 miles inland	**None**: Outside species range.
Circus cyaneus northern harrier	MB/CSC	Nests and forages in grasslands and open marshland, both salt and fresh. Nests consist of a thin to thick layer of small sticks and reeds, lined with grasses.	**None**: No suitable nesting habitat.

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Elanus leucurus white-tailed kite (nesting sites only)	MB/CFP	Inhabits low rolling foothills and valley margins with scattered oaks and river bottom- lands or marshes adjacent to deciduous woodlands. Prefers open grasslands, meadows and marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low**: suitable nesting present on site.
Empidonax difficilis Pacific-slope flycatcher	SC, MB/CSC	Found in a variety of habitats including cliff, conifer, forest, hardwood, mixed, and woodland. Nests along streams, in tree cavities, in cliffs, crotch of branch, earth banks, or buildings.	**Low**: suitable nesting habitat present on site.
Eremophila alpestris actia California horned lark	MB/CSC	Nests on relatively flat ground in open grasslands, removed from shrubs and trees.	**Low**: suitable nesting habitat present on site.
Hirundo rustica barn swallows	MB/-	Nests in anthropogenic structures stuck against a vertical surface. Nest made of mud pellets mixed with vegetable fibers and plant fibers.	**High**: suitable nesting habitat present on site.
Lanius ludovicianus loggerhead shrike	SC, MB/CSC	Nests in woodland and scrub habitats at margins of open grasslands. Often uses lookout perches such as fence posts. Resident and winter visitor in lowlands and foothills throughout California.	**Moderate**: suitable nesting habitat present on site.
Sayornis nigricans black phoebe	MB/-	Nests in anthropogenic structures on ledges. Nest made of mud pellets, dry grasses, weed stems, plant fibers and hair.	**High**: suitable nesting habitat present on site.
Selasphorus rufus Rufous hummingbird	SC, MB/-	Nests in chaparral, coniferous forest, scrub habitats and riparian habitats. Nests are placed on a downward drooping structure.	**High**: suitable nesting habitat present on site.
Selasphorus sasin Allen's hummingbird	SC, MB/-	Nests in wooded areas, meadows, or thickets along shaded streams, on a branch low down on stem, although placement height varies between 10 inches and 90 feet.	**High**: suitable nesting habitat present on site.

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Strix occidentalis occidentalis California spotted owl	SC, MB/CSC	Nests in dense, multi-layered evergreen forests high in diversity, with large trees (some < 83 cm DBH), some decadent, and open areas under canopy. Most often on lower, north-facing slopes of canyons. Found in canyon live oak/California laurel, ponderosa, sugar, Coulter pines, incense cedar, mixed conifer, Douglas fir, and white fir.	**Low**: suitable nesting habitat on site.
Sturnella neglecta western meadowlark	MB/-	Nests in grasslands removed from trees and shrubs. Nest is domed in structure.	**High:** suitable nesting habitat on site.
Mammals			
Antrozous pallidus pallid bat	-/CSC	Day roosts include rock outcrops, mines, caves, hollow trees, buildings and bridges. Recent research suggests high reliance on tree roosts	
Bassaricus astutus *ringtail*	SC/CSC	Most commonly found in riparian habitats, but also in canyon and rocky slopes and chaparral. Nests in downed logs, hollow trees, snags, cavities and rocky areas. Usually not further than 0.5 miles from permanent water.	**Moderate**: suitable habitat present on site.
Corynorhinus (Plecotus) townsendii townsendii Townsend's big-eared bat	-/CSC	Roosting sites include caves, mine tunnels, abandoned buildings and other structures. Forages in a variety of plant communities including coastal conifer and broad-leaf forests, oak and conifer woodlands, arid grasslands and deserts. Most commonly associates with mesic sites. Highly sensitive to human disturbances; a single visit by humans can cause bats to abandon roosts.	**None**: no suitable roosting habitat on site.
Myotis ciliolabrum small-footed myotis bat	SC/-	Roosts in caves, mine tunnels, crevices in rocks and buildings, generally near forested areas. Feeds low among trees or over shrubs.	**None**: No suitable roosting habitat.
Myotis evotis long-eared bat	SC/-	Day roosts in hollow trees under exfoliating bark, and crevices in rock outcrops. Found roosting under bark of small black oaks in northern California. Found throughout California	**Moderate**: suitable roosting habitat present on site.
Myotis thysanodes fringed myotis bat	SC/-	Roosts in colonies in caves, cliffs and attics of old buildings. Will also use trees as day roosts.	**Moderate**: suitable roosting habitat present on site.

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Myotis volans long-legged bat	SC/-	Day roosts in hollow trees, particularly large diameter snags or live trees with lightning scars. Habitat usually defined by montane coniferous forests, pinyon-juniper, and Joshua tree woodland habitats.	**Moderate**: suitable roosting habitat present on site.
Myotis yumanensis Yuma myotis bat	SC/-	Roosts colonially in cares, tunnels and buildings. Inhabits arid regions.	**None**: no suitable roosting habitat.

A definition of sensitivity codes is located in Appendix C.

Appendix C: Federal and State Listing Definitions

APPENDIX C

FEDERAL AND STATE LISTING DEFINITIONS

U.S. FISH AND WILDLIFE SERVICE

FE Federal Endangered

FT Federal Threatened

PE Proposed Endangered

PT Proposed Threatened

FC Federal Candidate

FSC Species of Concern*

* No longer recognized as a federal designation.

CALIFORNIA DEPARTMENT OF FISH AND GAME

CE California Endangered

CT California Threatened

CR California Rare

CALIFORNIA NATIVE PLANT SOCIETY

1A Plants presumed extinct in California.

1B Plants rare, threatened, or endangered in California and elsewhere.

2 Plants rare, threatened, or endangered in California, but more common elsewhere.

3 Plants about which we need more information.

4 Plants of limited distribution.