APPENDIX G

Biological Resources Assessment
GAVILAN COLLEGE/FAIRVIEW CORNERS ADEIR/DEIR
BIOTIC EVALUATION
CITY OF HOLLISTER, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., completed an investigation of the biological resources of an approximately 137-acre parcel in the City of Hollister, California, and evaluated likely impacts to such resources resulting from the development of the site into single-family residential units and a community college campus.

The entire site consists of an agricultural field of cultivated barley (*Triticum aestivum*) that is annually disced and periodically grazed by cattle, but which also supports other grassland species. LOA determined that special status plant species are absent from the site. Therefore, impacts from site development to special status plant species are less-than-significant.

Although no special status animal species were observed on the site during the 2007 or 2008 surveys, several special status animal species may occur within the project boundaries. A number of special status animal species may regularly pass through or over the site during migration or may infrequently forage or roost on or adjacent to the site. For these species, the project would result in a less-than-significant impact on foraging or roosting habitat, as similar habitat is regionally abundant.

Development on the site would result in the loss of aestivation habitat for the California tiger salamander and could result in the loss of individuals, which would be considered a significant impact. Mitigation for impacts to this species would include preservation and creation of habitat onsite or at a suitable offsite location.

The burrowing owl and American badger could occur anywhere on the site where suitable burrows exist, as the project site features suitable, albeit extremely marginal, habitat for these species. Impacts to the burrowing owl and American badger may occur as a result of project buildout. Impacts to habitat for the burrowing owl and American badger would be less-than-significant; however, impacts to individuals of these species may occur as a result of project build-out. Pre-construction surveys would be required for these species.

Impacts to tree- and ground-nesting raptors may occur as a result of future ground disturbance activities. While the site itself does not contain suitable nesting habitat for tree-nesting birds, the site’s proximity to suitable habitat occurring on adjacent properties as well as the occurrence of suitable ground-nesting habitat may require that an appropriate construction-free buffer be maintained during the breeding season (February 1 to August 31). Pre-construction surveys would be required for special status bird species that occur on or within 250 feet of the project boundary. Implementation of proposed mitigation measures to ensure that future ground disturbance does not result in harm or injury to any of these species would reduce impacts to a less-than-significant level.

Jurisdictional waters are absent from the project site.

Impacts to habitat for native wildlife and degradation of water quality in seasonal creeks, reservoirs, and downstream waters would be considered less-than-significant.
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1.0 INTRODUCTION

Live Oak Associates, Inc. (LOA), has prepared the following report, which describes the biotic resources of a 137-acre property in the City of Hollister, California, and evaluates likely impacts to these resources resulting from the development of a community college campus and a low-density residential neighborhood. The project site is located in the northern portion of San Benito County, within the City of Hollister (Figure 1) in the Tres Pinos 7.5” U.S. Geological Survey (USGS) quadrangle in the west half of section 7, township 13 south, range 6 east.

Development projects can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of Hollister. This report addresses issues related to: 1) sensitive biotic resources occurring on the study area; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures that may be required to reduce the magnitude of anticipated impacts. As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources;
- Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species’ known range;
- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development;
- Identify and discuss project impacts to biological resources likely to occur on the site within the context of CEQA or any state or federal laws; and
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant level as identified by CEQA and that are generally consistent with recommendations of the resource agencies for affected biological resources.
The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the site, discussed in Section 2.0. Sources of information used in the preparation of this analysis included: 1) the *California Natural Diversity Data Base* (CDFG 2008), 2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001), and 3) manuals and references related to plants and animals of the region. A reconnaissance-level field survey of the study area was conducted on October 23, 2007, by LOA ecologists Davinna Ohlson and Nathan Hale, at which time the principal biotic habitats and land uses of the site were identified, and the constituent plants and animals of each were noted. An additional site visit was conducted by Ms. Ohlson and Mr. Hale on February 5, 2008, to delineate aquatic features on and adjacent to the site. Rick Hopkins, Melissa Denena, and Ms. Ohlson conducted additional site surveys in April and May 2007.

The proposed project is the construction of 226 single-family residential units on approximately 53 acres of the site and a community college campus on approximately 72 acres of the site. Approximately 12 acres of the site will be dedicated for open space and parks.
2.0 EXISTING CONDITIONS

The site is bounded by rural residential and agricultural fields to the north and east, Highway 25 to the south, and Fairview Road to the west. Topographically, the site ranges in elevation from approximately 465 ft. (142 m) National Geodetic Vertical Datum (NGVD) in the southwest corner of the site to approximately 550 ft. (168 m) NGVD in the northern half of the site. Surrounding land uses include residential development, agriculture, non-native grassland to the northeast, and Ridgemark Golf Course. The site itself consists of a grazed hay field.

Four soil types from three soil series—Antioch, Rincon, and San Benito—were identified on the project site (NRCS 2007) (Figure 2). The Antioch series consists of moderately well to somewhat poorly drained soils. The Rincon series consist of deep, well-drained soils that formed in alluvium from sedimentary rocks. The San Benito series consists of well-drained soils that formed in residuum weathered from shale and sandstone with strongly sloping to very steep slopes. None of these soil series are considered hydric, although hydric inclusions may occur. Antioch and Rincon soils are considered slightly acidic to moderately alkaline; therefore, the site may have, at one time, supported plant species adapted to such conditions.

San Benito County has a Mediterranean climate with warm to hot dry summers and cool winters. Annual precipitation in the general vicinity of the site averages 13.5 inches, most of which falls between November and April. Nearly all precipitation falls in the form of rain. Stormwater runoff readily infiltrates the site’s soils; when field capacity has been reached, gravitational water flows off the site into roadside ditches along Fairview Road and Highway 25.

Surrounding land uses include open space, agricultural, and low-density, rural residences to the north and east; a golf course to the south; and residential development to the west. The site itself is regularly farmed and grazed and, thus, retains little of its natural character.
2.1 BIOTIC HABITATS

Only one biotic habitat occurs onsite. For the purposes of this report, this habitat has been identified as “agricultural field” (Figure 3). No naturally occurring biotic habitats are present on the site. A list of the vascular plant species observed within the study area during the October 2007 and February 2008 field surveys and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively.

2.1.1 Agricultural Field

The entire site consists of a field of cultivated barley (*Triticum aestivum*) that is annually disced and periodically grazed by cattle. Within the northeast corner of this agricultural field, traces of a former stock pond persist. While this remnant depressional feature is still visible, it lacks the hydrological and biological elements of an actual stock pond.

Common grasses and forbs observed throughout the field include, but are not limited to, soft chess (*Bromus hordeaceus*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), yellow star thistle (*Centaurea solstitialis*), vinegarweed (*Trichostema lanceolatum*), and field bindweed (*Convolvulus arvensis*). The remnant stock pond is a relict feature that is known to have held water as of 2000; the most recent occurrence of ponding is unknown. Under current land management practices (i.e., regular discing), this feature does not appear to pond. It was dry at the time of the October 2007 survey and was only slightly moist (i.e., the soils were damp) at the time of February 2008 survey within a week following a storm event in the region; however, surface water was not present. The vegetation that exists within the remains of this stock pond is comprised of the same species that occur on the rest of the site; however, it also features poison hemlock (*Conium maculatum*) and spiny cocklebur (*Xanthium spinosum*).

Compared to more natural habitats, managed agricultural lands provide relatively low habitat value for wildlife due to the lack of understory vegetation that would typically provide food and cover for these species. Annual management practices for agricultural lands would eliminate breeding and foraging habitat for many small birds and mammals native to the region.
The absence of rock piles and woody debris suggests that the site is relatively poor habitat for reptiles and amphibians. The western toad (*Bufo boreas*), western fence lizards (*Sceloporus occidentalis*), and gopher snake (*Pituophis catenifer*) may occasionally occur within the project boundaries; however, the occurrence of these species would be limited. While unlikely, the fossorial mammal burrows occurring on the project site may provide suitable cover and aestivation habitat for amphibians.

Several avian species were observed perching on power lines that cross the southern half of the site in an east-west orientation. These include the American kestrel (*Falco sparverius*), rock pigeon (*Columba livia*), and Brewer’s blackbird (*Euphagus cyanocephalus*). Additionally, red-tailed hawks (*Buteo jamaicensis*), a Say’s phoebe (*Sayornis saya*), a northern mockingbird (*Mimus polyglottos*), western meadowlarks (*Sturnella neglecta*), and lesser goldfinches (*Carduelis psaltria*) were observed flying over or near the site. While the site itself was devoid of trees and shrubs, blue-gum eucalyptus (*Eucalyptus globulus*) and coyote brush (*Baccharis pilularis*) were observed along the margins of the neighboring parcels to the east and south. Several species of birds were observed utilizing these structures for perching before flying onto or over the project site. These include the golden eagle (*Aquila chrysaetos*) and the white-crowned sparrow (*Zonotrichia leucophrys*). Other avian species that are expected to occur on the site include the turkey vultures (*Cathartes aura*), common snipe (*Gallinago gallinago*), mourning dove (*Zenaida macroura*), loggerhead shrike (*Lanius ludovicianus*), and western scrub-jay (*Aphelocoma californica*).

Numerous ground squirrels (*Spermophilus beecheyi*) and their burrows were observed throughout the site. Botta’s pocket gopher (*Thomomys bottae*) burrows were also present on and adjacent to the site. While site management has reduced or eliminated the occurrence of most mammal species, some small mammals continue to occur on the site. Other mammal species that could also occur include the cottontail (*Sylvilagus audubonii*), ornate shrew (*Sorex ornatus*), western harvest mouse (*Reithrodontomys megalotis*), and California meadow vole (*Microtus californicus*). Small mammals often attract predators, including reptiles and birds previously discussed. The occurrence of small mammals may also attract larger mammalian predators.
known to occur in the region, including coyotes (*Canis latrans*), domestic dogs (*Canis familiaris*), and feral cats (*Felis catus*).

### 2.2 MOVEMENT CORRIDORS

Many terrestrial animals need more than one biotic habitat in order to perform all of their biological activities. With increasing encroachment of humans on wildlife habitats, it has become important to establish and maintain linkages, or movement corridors, for animals to be able to access locations containing different biotic resources that are essential to maintaining their life cycles. Terrestrial animals use ridges, canyons, riparian areas, and open spaces to travel between their required habitats.

The importance of an area as a movement corridor depends on the species in question and its consistent use patterns. Animal movements generally can be divided into three major behavioral categories:

- Movements within a home range or territory;
- Movements during migration; and
- Movements during dispersal.

While no detailed study of animal movements has been conducted for the study area, knowledge of the site, its habitats, and the ecology of the species potentially occurring onsite permits sufficient predictions about the types of movements occurring in the region and whether or not proposed development would constitute a significant impact to animal movements.

As noted in Section 2.1, the intense agricultural use of this land limits the number of amphibians, reptiles, birds, and mammals that use the site. The more common species that occur have largely utilized the site as part of their home range and to disperse from and across the site. These animals would move through all portions of the site, as they would also do on surrounding agricultural lands and open spaces. Due to the low habitat value of the project site, it is likely only used in a limited way and does not provide a regionally unique corridor of movement.
Furthermore, the project site is expected to facilitate regional movements of only some wildlife species, as animals would have to travel through large areas of marginal to poor habitat (i.e., disturbed, developed, and agricultural lands) before reaching the site.

### 2.3 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFG. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as “special status species.”

A number of special status plants and animals occur in the site’s vicinity. These species and their potential to occur in the study area are listed in Table 1 on the following pages. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988), *California Natural Diversity Data Base* (CDFG 2008), *Endangered and Threatened Wildlife and Plants* (USFWS 2007), *State and Federally Listed Endangered and Threatened Animals of California* (CDFG 2007), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001). This information was used to evaluate the potential for special status plant and animal species that occur on the site. Figures 4 and 5 depict the location of special status species found by the California Natural Diversity Data Base (CNDDB). It is important to note that the CNDDB is a volunteer database; therefore, it may not contain all known or gray literature records.
A search of published accounts for all relevant special status plant and animal species was conducted for the Tres Pinos USGS 7.5” quadrangle in which the project site occurs and for the eight surrounding quadrangles (Cherry Peak, Hollister, Mariposa Peak, Mt. Harlan, Paicines, Quien Sabe Valley, San Felipe, and Three Sisters) using the California Natural Diversity Data Base Rarefind (CDFG 2008). All species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, or 4 were also reviewed.

No federal or state threatened or endangered plant species appeared in a search of published biological data for these quadrangles.

Other plant species occur in habitats not present on the site (e.g., serpentine habitats, wetlands, marshes and swamps, coniferous forest, chaparral, coastal scrub, etc.) or at elevations well above or below those of the site; therefore, these species are also considered absent from the site. These species include the Gabilan Mountains manzanita (*Arctostaphylos gabilanensis*), Pajaro manzanita (*Arctostaphylos pajaroensis*), chaparral harebell (*Campanula exigua*), San Benito spineflower (*Chorizanthe bilboa var. immemora*), Pinnacles buckwheat (*Eriogonum nortonii*), Hoover’s button-celery (*Eryngium aristulatum var. hooveri*), Indian Valley bush mallow (*Malacothamnus aboriginum*), and San Antonio Hills monardella (*Monardella antonina ssp. antonina*).

Similarly, one animal species not expected to occur on the site because habitat requirements are not met is the ringtail (*Bassariscus astutus*).

Species more likely to occur on the project site itself or in the surrounding vicinity are discussed further below.
## TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

**PLANTS (adapted from CDFG 2008 and CNPS 2001)**

**Special status plants listed by CNPS**

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Habitat</th>
<th>*Occurrence in the Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkali milk-vetch (<strong>Astragalus tener var. tener</strong>)</td>
<td>CNPS 1B</td>
<td>Alkaline soils of playas, adobe clay valley and foothill grasslands, and alkali vernal pools at elevations of up to 60 meters. Blooms March-May.</td>
<td><strong>Absent.</strong> The project site has been heavily managed for agricultural purposes. While moderately alkaline soils may persist on the site, any suitable habitat that may have once been present has been eliminated from the site.</td>
</tr>
<tr>
<td>San Joaquin spearscale (<strong>Atriplex joaquiniana</strong>)</td>
<td>CNPS 1B</td>
<td>Chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils at elevations of up to 835 meters. Blooms April-October.</td>
<td><strong>Unlikely.</strong> The project site has been heavily managed for agricultural purposes. While moderately alkaline soils may persist, any suitable habitat that may have once been present has likely been eliminated from the site. However, this species was documented in 1995 approximately 5 miles southeast of the site.</td>
</tr>
<tr>
<td>Round-leaved filaree (<strong>California macrophyllum</strong>)</td>
<td>CNPS 1B</td>
<td>Clays of cismontane woodlands and valley and foothill grasslands at elevations between 15 and 1200 meters. Blooms March-May.</td>
<td><strong>Absent.</strong> The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has been eliminated from the site.</td>
</tr>
<tr>
<td>Vernal barley (<strong>Hordeum intecedens</strong>)</td>
<td>CNPS 3</td>
<td>Coastal dunes, coastal scrub, saline flats and depressions of valley and foothill grasslands, and vernal pools at elevations of between 5 and 1000 meters. Blooms March-June.</td>
<td><strong>Unlikely.</strong> The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has likely been eliminated from the site.</td>
</tr>
<tr>
<td>Woolly-headed lessingia (<strong>Lessingia hololeuca</strong>)</td>
<td>CNPS 3</td>
<td>Broadleafed upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland on clay or serpentine at elevations between 15 and 305 meters. Blooms June-October.</td>
<td><strong>Absent.</strong> The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has likely been eliminated from the site. Additionally, serpentine soils are absent from the site.</td>
</tr>
<tr>
<td>Marsh microseris (<strong>Microseris paludosa</strong>)</td>
<td>CNPS 1B</td>
<td>Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations of between 5 and 300 meters. Blooms April-June and rarely in July.</td>
<td><strong>Absent.</strong> The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has been eliminated from the site.</td>
</tr>
<tr>
<td>Shining navarretia (<strong>Navarretia nigelliformis ssp. radians</strong>)</td>
<td>CNPS 1B</td>
<td>Cismontane woodland, valley and foothill grassland, and vernal pools at elevations of between 76 and 1000 meters. Blooms May-July.</td>
<td><strong>Absent.</strong> The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has likely been eliminated from the site.</td>
</tr>
</tbody>
</table>
## TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

### PLANTS – cont’d.

*Special status plants listed by CNPS*

<table>
<thead>
<tr>
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<th>Status</th>
<th>Habitat</th>
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</thead>
<tbody>
<tr>
<td>Prostrate navarretia (<em>Navarretia prostrata</em>)</td>
<td>CNPS 1B</td>
<td>Mesic soils of coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pools at elevations of between 15 and 700 meters. Blooms April-July.</td>
<td>Absent. The project site has been heavily managed for agricultural purposes. While moderately alkaline soils may persist on the site, any suitable habitat that may have once been present has been eliminated from the site.</td>
</tr>
<tr>
<td>Hairless popcorn-flower (<em>Plagiobothrys glaber</em>)</td>
<td>CNPS 1A</td>
<td>Alkaline meadows and seeps and in salty marshes and swamps at elevations of between 15 to 180 meters. Blooms March-May.</td>
<td>Absent. The project site has been heavily managed for agricultural purposes. While moderately alkaline soils may persist on the site, any suitable habitat that may have once been present has been eliminated from the site.</td>
</tr>
<tr>
<td>Caper-fruited tropidocarpum (<em>Trifolium depauperatum var. hydrophilum</em>)</td>
<td>CNPS 1B</td>
<td>Marshes and swamps, vernal pools, and mesic, alkaline soils of valley and foothill grasslands at elevations of up to 300 meters. Blooms April - June.</td>
<td>Unlikely. The project site has been heavily managed for agricultural purposes. Any suitable habitat that may have once been present has likely been eliminated. The nearest, documented occurrence of this species occurred in 1998, more than 9 miles from the site.</td>
</tr>
</tbody>
</table>

### ANIMALS (adapted from CDFG 2008 and USFWS 2008)

*Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act*

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Peregrine falcon (<em>Falco peregrinus anatum</em>)</td>
<td>CE</td>
<td>Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.</td>
<td>Unlikely. Peregrine falcons may occur incidentally on the site during migration or foraging. Suitable nesting habitat is absent from the site.</td>
</tr>
<tr>
<td>California tiger salamander (<em>Ambystoma californiense</em>)</td>
<td>FT, CSC</td>
<td>Breeds in vernal pools and stock ponds of central California; adults aestivate in grassland habitats adjacent to the breeding sites.</td>
<td>Possible. This species was documented on the site in 2000 as occurring in the stock pond, when it used to hold water. Additionally, this species has been documented in at least four locations within two miles of the project site since 1999. Two of these offsite occurrences, occurring in 1999, include the presence of larvae in water features associated with the Ridgemark Golf Course approximately 0.25 miles south of the site, on the other side of Highway 25. Breeding habitat is currently absent from the project site and has been absent for several years due to the site having been regularly farmed and disced. The remains of the stock pond feature were dry during all site visits conducted by LOA in 2007 and 2008. The site provides potential aestivation habitat in the form of ground squirrel burrows and other ground surface crevices.</td>
</tr>
</tbody>
</table>
### TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont'd.

**Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act**

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>California red-legged frog (Rana aurora draytonii)</td>
<td>FT, CSC</td>
<td>Rivers, creeks and stock ponds of the Sierra foothills and coast range, preferring pools with overhanging vegetation. May also be found in a variety of upland habitats.</td>
<td>Absent. Suitable breeding habitat for this species is absent from the project site. This species was observed in 2005 in a detention pond and a Ridgemark Golf Course pond on the south side of Highway 25, approximately 0.1 miles south of the project site.</td>
</tr>
<tr>
<td>Western yellow-billed cuckoo (Coccyzus americanus occidentalis)</td>
<td>FC, CE</td>
<td>Nests in dense riparian forests. Inhabits broad, lower flood bottoms of larger river systems</td>
<td>Absent. This species has not been observed within San Benito county since 1899 in the vicinity of Paicines. Furthermore, suitable habitat for this species is absent from the project site.</td>
</tr>
<tr>
<td>San Joaquin kit fox (Vulpes macrotis mutica)</td>
<td>FE, CT</td>
<td>Frequents annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing and suitable prey base. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat. May forage in adjacent agricultural habitats.</td>
<td>Unlikely. At best, marginally suitable onsite breeding and foraging habitat for this species occurs onsite. However, the nearest observation of this species was documented approximately 0.5 miles north of the project site in 1971. Since that sighting, only one occurrence, which took place in 1992, approximately 5 miles from the site, has been documented in the region. Numerous regional surveys, conducted before and since the date of the 1992 occurrence, have failed to detect this species. In total eight occurrences of this species have been recorded within ten miles of the project site over the past 37 years. In the off-chance that a migrating kit fox is found in the region, the marginal quality of the project site suggests that they would not choose this site for denning or breeding. The likelihood of this species occurring on the project site is extremely low.</td>
</tr>
</tbody>
</table>

**California Species of Special Concern and Protected Species**

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Habitat</th>
<th>*Occurrence in the Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coast Range newt (Taricha torosa torosa)</td>
<td>CSC</td>
<td>Breeds in ponds, reservoirs and slow moving water. May also occur in large streams and rivers.</td>
<td>Absent. Suitable habitat for this species is absent from the project site. The remnant stock pond feature no longer appears to hold water and is therefore unsuitable for this species. One regional occurrence of this species appears to have taken place approximately 5 miles to the west of the site in 1998, beyond many roadways and some urban development.</td>
</tr>
<tr>
<td>Species</td>
<td>Status</td>
<td>Habitat</td>
<td>*Occurrence in the Study Area</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Western spadefoot (Spea hammondii)</td>
<td>CSC</td>
<td>Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.</td>
<td><em>Unlikely.</em> This species has been documented in three locations within two miles of the project site since 1978, including one documented occurrence on the northern portion of the site in 2000. This species is known to breed within the golf course ponds of Ridgemark Golf Course immediately south of the site. Individuals occurring on nearby lands could move onto the site, which provides potential, albeit marginal, aestivating habitat for the spadefoot. Breeding habitat is absent from the site, as the stock pond does not appear to hold water for a sufficient duration to support breeding populations.</td>
</tr>
<tr>
<td>Foothill yellow-legged frog (Rana boylii)</td>
<td>CSC</td>
<td>Found primarily in swiftly flowing creeks.</td>
<td><em>Absent.</em> Suitable habitat for this species is absent from the project site.</td>
</tr>
<tr>
<td>Western pond turtle (Actinemys marmorata)</td>
<td>CSC</td>
<td>Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.</td>
<td><em>Absent.</em> Suitable habitat for this species is absent from the project site.</td>
</tr>
<tr>
<td>San Joaquin coachwhip (Masticophis flagellum ruddocki)</td>
<td>CSC</td>
<td>Frequents chaparral habitats, specifically scrublands, rocky hillsides, gullies, canyons, and stream courses of the foothills.</td>
<td><em>Unlikely.</em> Suitable habitat for this species is marginal to absent from the project site. While this species has been known to utilize farmland habitats, this site is heavily managed, which would preclude it from supporting a suitable prey base to attract or support this species.</td>
</tr>
<tr>
<td>Golden eagle (Aquila chrysaetos)</td>
<td>CSC</td>
<td>Typically frequents rolling foothills, mountain areas, woodland areas, sage-juniper flats, and desert habitats.</td>
<td><em>Likely.</em> The trees on adjacent properties provide suitable perching and possible breeding habitat for this species. This species was observed perching in eucalyptus trees immediately east of the project site during the October 2007 survey. The site itself lacks suitable breeding habitat and provides a marginally suitable prey base for this species.</td>
</tr>
<tr>
<td>White-tailed kite (Elanus leucurus)</td>
<td>CP</td>
<td>Open grasslands and agricultural areas throughout central California.</td>
<td><em>Possible.</em> Breeding habitat is absent from the site. This species would be expected to forage on and near the project site.</td>
</tr>
<tr>
<td>Northern harrier (Circus cyaneus)</td>
<td>CSC</td>
<td>Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.</td>
<td><em>Unlikely.</em> Because it is so heavily managed through discing and grazing, breeding and foraging habitat is marginal to poor for this species. This species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Merlin (Falco columbarius)</td>
<td>CSC</td>
<td>Breeds in Canada but winters in a variety of California habitats, including grasslands, savannas, and wetlands.</td>
<td><em>Unlikely.</em> Breeding habitat is absent from the site, and foraging habitat is marginal to absent. This species may occur as an occasional winter migrant.</td>
</tr>
</tbody>
</table>
**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

**ANIMALS – cont’d.**

*California Species of Special Concern and Protected Species*

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Habitat</th>
<th><em>Occurrence in the Study Area</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Burrowing owl (<em>Athene cunicularia</em>)</td>
<td>CSC</td>
<td>Open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. This species is often associated with California ground squirrels.</td>
<td>Unlikely. LOA did not observe direct or indirect evidence of burrowing owls during site visits to this property conducted during the breeding and non-breeding seasons in April, May, and October 2007 and February 2008. While ground squirrel burrows found on the site provide marginally suitable nesting habitat and there appears to be marginally suitable foraging habitat onsite, the present site management regime results in the site being functionally poor habitat for this species. This species was observed utilizing a burrow approximately 1 mile north of the project site in November 2000.</td>
</tr>
<tr>
<td>Black swift (<em>Cypseloides niger</em>)</td>
<td>CSC</td>
<td>Migrants and transients found throughout many habitats of state. Breeds on steep cliffs or ocean bluffs, or in cracks and crevasses of inland deep canyons.</td>
<td>Unlikely. Suitable breeding habitat and foraging habitats are absent from the site. However, this species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Vaux’s swift (<em>Chaetura vauxi</em>)</td>
<td>CSC</td>
<td>Migrants and transients move through the foothills of the western Sierra in spring and late summer. Breeds in coniferous forests.</td>
<td>Unlikely. Suitable breeding habitat and foraging habitats are absent from the site. However, this species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Loggerhead shrike (<em>Lanius ludovicianus</em>)</td>
<td>CSC</td>
<td>Frequent open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Often be found in cropland.</td>
<td>Possible. Suitable breeding habitat is absent from the project site. Foraging habitat is marginal; however, this species could reasonably be expected to occasionally pass through the site.</td>
</tr>
<tr>
<td>Yellow-breasted chat (<em>Icteria virens</em>)</td>
<td>CSC</td>
<td>Breeds in brushy tangles, briers, and stream thickets. May occur in overgrown pastures and upland thickets.</td>
<td>Unlikely. Suitable breeding habitat is absent from the site, and foraging habitat is marginal to absent. However, this species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Tricolored blackbird (<em>Agelaius tricolor</em>)</td>
<td>CSC</td>
<td>Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in nearby grassland and cropland habitats.</td>
<td>Unlikely. Suitable breeding habitat is absent from the site, and foraging habitat is marginal. However, this species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Townsend’s big-eared bat (<em>Plecotus townsendii townsendii</em>)</td>
<td>CSC</td>
<td>Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats of the state.</td>
<td>Unlikely. While suitable roosting and breeding habitat is absent for this species, foraging habitat is marginal to absent. This species may occasionally pass through the site.</td>
</tr>
<tr>
<td>Hoary bat (<em>Lasiurus cinereus</em>)</td>
<td>CSC</td>
<td>Forages over many habitats. Roosts mainly in coniferous and deciduous trees.</td>
<td>Unlikely. While suitable roosting and breeding habitat is absent for this species, foraging habitat is marginal to absent. This species may occasionally pass through the site.</td>
</tr>
</tbody>
</table>
TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont’d.

*California Species of Special Concern and Protected Species*

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Habitat</th>
<th>*Occurrence in the Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pallid bat (Antrozous pallidus)</td>
<td>CSC</td>
<td>Grasslands, chaparral, woodlands, and forests of California; most common in dry rocky open areas that provide roosting opportunities.</td>
<td>Unlikely. While suitable roosting and breeding habitat is absent for this species, foraging habitat is marginal to absent. This species may occasionally pass through the site.</td>
</tr>
<tr>
<td>American badger (Taxidea taxus)</td>
<td>CSC</td>
<td>Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.</td>
<td>Unlikely. Marginally suitable habitat is present on the project site for this species. This species was observed utilizing a burrow approximately 1.5 miles north of the project site in June 1993.</td>
</tr>
</tbody>
</table>

*Explanation of Occurrence Designations and Status Codes*

Present: Species observed on the sites at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the sites, but it could occur there from time to time.
Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

**STATUS CODES**

<table>
<thead>
<tr>
<th>FE</th>
<th>Federally Endangered</th>
<th>CE</th>
<th>California Endangered</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT</td>
<td>Federally Threatened</td>
<td>CT</td>
<td>California Threatened</td>
</tr>
<tr>
<td>FPE</td>
<td>Federally Endangered (Proposed)</td>
<td>CP</td>
<td>California Protected</td>
</tr>
<tr>
<td>FC</td>
<td>Federal Candidate</td>
<td>CSC</td>
<td>California Species of Special Concern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CNPS</th>
<th>California Native Plant Society Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Plants Presumed Extinct in California</td>
</tr>
<tr>
<td>1B</td>
<td>Plants Rare, Threatened, or Endangered in California and elsewhere</td>
</tr>
<tr>
<td>2</td>
<td>Plants Rare, Threatened, or Endangered in California, but more common elsewhere</td>
</tr>
</tbody>
</table>

| Information is needed – a review list |
| Plants of limited distribution – a watch list |
2.4 ENDANGERED, THREATENED, OR SPECIAL STATUS PLANT AND ANIMAL SPECIES MERITING FURTHER DISCUSSION

Most of the special status animal species that have been documented in the region may occur rarely or occasionally on the site (Table 2). For these species, sufficient information exists to evaluate the potential imposed impacts future development may have on them. A few of the state- or federally-listed species require additional in-depth analysis. Below are detailed discussions that include an analysis of their legal status, ecology, and the suitability of the site to support them.

2.4.1 California Tiger Salamander \textit{(Ambystoma californiense)}. Federal Listing Status: Threatened; State Listing Status: Threatened.

The USFWS listed the California tiger salamander as threatened on August 4, 2004 (69 Fed. Reg. 47212–47248). The California Department of Fish and Game has designated this species as a Species of Special Concern.

\textit{Life history and ecology.} The California tiger salamander is a large terrestrial salamander, with adults attaining a total length of over 8 inches (203 millimeters) [Stebbins 1951]. Dorsally, the background color appears to be jet black--normally with an overlain pattern of white or yellow spots, or bars (Stebbins 1985; Petranka 1998). Adult California tiger salamanders breed from late November through February, following the onset of winter rains (Storer 1925; Barry and Shaffer 1994). Both males and females travel up to 1 mile (1.6 km) or more during nocturnal breeding migrations from subterranean refuge, or aestivation, sites (i.e., small mammal burrows) to egg deposition sites in long-lasting, rain-filled vernal pools (Twitty 1941; Loredo et al. 1961; Andersen 1968; Austin and Shaffer 1992;).

Embryos of California tiger salamanders hatch in approximately 14-28 days after being laid and the resulting gilled, aquatic larvae [0.41-0.43 inches (10.5-11 mm) in length] require a minimum of about 10-12 weeks to complete development through metamorphosis (Storer 1925; Twitty 1941). Following metamorphosis (normally from early May through July), juveniles emigrate en masse at night into small mammal burrows or deep cracks in the soil, which they use as refugia during the hot summer and fall months (Shaffer et al. 1993; Loredo et al. 1996).
Anecdotal evidence indicates that salamanders have a high degree of site fidelity to their breeding ponds and also to the small mammal burrows they use for refugia (Shaffer et al. 1993). Sites used for reproduction are typically natural pools that fill with rainwater and artificial stock ponds; however, salamanders have also been observed to breed in springs, wells, artificial reservoirs, quarry ponds, man-made canals, and rarely, in the slack waters of oxbows in small- to medium-sized streams. Such sites may, or may not contain dense amounts of aquatic and streamside vegetation. The highest numbers of larvae appear to occur in aquatic habitats that are largely devoid of any vegetation and contain very turbid water. Salamanders may also turn up in certain man-made structures (e.g. wet basements, wells, swimming pools, underground pipes, and septic tank drains), sometimes many years after their local breeding site has been destroyed by urbanization (Storer 1925; Pickwell 1947).

Juvenile and adult salamanders typically use the burrows of California ground squirrels and pocket gophers as underground refugia (Storer 1925; Jennings and Hayes 1994; Jennings 1996; Loredo et al. 1996) but may use a variety of burrows including cracks within the soil that may extend up to 15 feet (4.6 m) deep from the soil surface (Jennings, unpub. data). Juvenile and adult salamanders are especially common in situations where piles of concrete, rock, or other rubble are mixed with dirt and are located near breeding sites (Jennings, unpub. data).

Potential to occur on the site. The site does not provide suitable breeding habitat for CTS. As indicated previously, the site has a remnant stock pond feature that appears to remain dry throughout the year. In 2000 the stock pond served as breeding habitat for this species (CDFG 2008); however, site management or some other factor has altered this feature significantly making the stock pond unsuitable for use as breeding habitat for CTS. During both the October 2007 and the February 2008 surveys this feature was dry. Considering that this time period experienced moderately high precipitation relative to the region, this provides substantial evidence that the stock pond no longer provides suitable breeding habitat for the CTS.

There are eleven documented occurrences of this species within three miles of the site. This includes four locations within two miles of the project site since 1999. As mentioned above, one documented occurrence was from 2000 in the remnant stock pond of the site. Two of the
remaining occurrences, occurring in 1999, include the presence of larvae in water features associated with the Ridgemark Golf Course approximately 0.1 miles and 0.25 miles, respectively, south of the site. For all intents and purposes, there is no evidence that suggests that these features do not presently function as breeding habitat for this species. Suitable, albeit marginal, aestivation habitat in the form of rodent burrows was observed within the site’s agricultural field. However, this presumes that CTS breed within some reasonable, unimpeded distance of the site. Findings from the limited research on the species suggest that 95% of the CTS population aestivates within 2,000 feet of a breeding pond and that 99% of the breeding population aestivates within 0.7 miles of a breeding pond. Highway 25, an approximately 40-ft.-wide road supporting moderate to heavy vehicular traffic, would act as a significant barrier to aestivating CTS coming from the known breeding ponds to the south of the site. Regardless, aestivating CTS can utilize upland habitat in the absence of suitable aquatic breeding habitats for up to ten years before all cohorts from the last breeding event are expected to perish.

In summary, breeding habitat is absent from the agricultural field of the site and limited aestivation habitat occurs on the site, as this habitat is heavily managed for dry land farming.

2.4.2 Western Burrowing Owl (*Athene cunicularia*). Federal Listing Status: None; State Listing Status: Species of Special Concern.

The burrowing owl is a California species of special concern but is not currently protected under the state or federal Endangered Species Acts. This owl is a small, terrestrial owl of open prairie and grassland habitats. These owls inhabit relatively flat, dry, open grasslands where tree and shrub canopies provide less than 30% cover.

*Life history and ecology.* The burrowing owl is the only owl that routinely lives and nests underground. In the western United States burrowing owls do not dig their own burrows, but take over burrows dug by animals such as ground squirrels (*Spermophilus* spp.), prairie dogs (*Cynomys* spp.), and badgers (*Taxida taxidus*). In California, this species is found in close association with California ground squirrels, using their abandoned burrows for shelter, roosting, and nesting. Burrowing owls are colonially nesting raptors, and colony size is indicative of habitat quality. Owl populations have declined sharply in some portions of California during the
past two decades (i.e. the San Francisco Bay Area, Sacramento County, San Joaquin County, etc.), but they have increased greatly in some agricultural counties (particularly Imperial).

Potential to occur on the site. Ground squirrel burrows found on the site provide limited nesting habitat for burrowing owls. Given the current land use practices associated with dry land farming, it is highly unlikely that burrowing owls would breed onsite. If they breed or winter nearby, they could use the site for foraging, but no evidence (i.e., feathers and regurgitation pellets) was detected during any of our site visits in April, May, and October 2007 and February 2008 to indicate that they do so. Therefore, any benefit of this site for the regional population is speculative. This species was observed utilizing a burrow approximately 1 mile north of the project site in November 2000. Additionally, there appears to be a marginally suitable prey base for this species within the project site.

2.4.3 San Joaquin Kit Fox (*Vulpes macrotus mutica*). Federal Listing Status: Endangered; State Listing Status: Threatened.

By the time the U.S. Fish and Wildlife Service listed it as an endangered species under the authority of the Federal Endangered Species Act on March 11, 1967, the San Joaquin kit fox had been extirpated from much of its historic range. In 1998, the USFWS adopted a final recovery plan for the San Joaquin kit fox. On June 27, 1971, the State of California listed the kit fox as a threatened species.

*Life history and ecology.* The San Joaquin kit fox, the smallest North American member of the dog family (Canidae), historically occupied the dry plains of the San Joaquin Valley, from San Joaquin County to southern Kern County (Grinnell et al. 1937). Critical habitat has yet to be established for the San Joaquin kit fox. Local surveys, research projects, and incidental sightings indicate that kit foxes currently occupy available habitat on the San Joaquin Valley floor and in the surrounding foothills.

Kit foxes prefer habitats of open or low vegetation with loose soils. In the northern portion of their range, they occupy grazed grasslands and, to a lesser extent, valley oak woodlands. In the southern and central portion of the Central Valley, kit foxes are found in valley sink scrub, valley
saltbrush scrub, upper Sonoran subshrub scrub, and annual grassland (USFWS 1998). Kit foxes may also be found in grazed grasslands, urban settings, and in areas adjacent to tilled or fallow fields (USFWS 1998).

Kit fox diets vary geographically, seasonally, and annually. In most of their range, which includes lands around the study area, known prey includes mice, insects, California ground squirrels, black-tailed hares, desert cottontails, and ground-nesting birds (Archon 1992; Jensen 1972).

The kit fox requires underground dens to raise pups, regulate body temperature, and avoid predators and other adverse environmental conditions (Golightly and Ohmart 1984). They usually occupy burrows excavated by small mammals, such as ground squirrels. Denning habitat consists of ground squirrel complexes in which some burrows have been enlarged to 4 to 10 inches in diameter for the length of a human arm (approximately 2 ft.).

**Potential to occur onsite.** While suitable onsite breeding and foraging habitat for this species is marginal, at best, this species would not reasonably be expected to occur on the site. Of primary interest for this project are kit fox records from the region. According to the CNDDB (CDFG 2008), there have been a total of eight direct and indirect sightings within ten miles of the site since 1971 (Figure 5). The nearest observation was documented approximately 0.5 miles north of the project site in 1971. The most recent documented occurrence of this species took place in 1992, approximately 5 miles west of the site. Numerous regional surveys conducted before and since the date of the 1992 occurrence have failed to detect this species.

While these occurrences suggest that it is possible that kit foxes may have traveled to the project site, the current marginal quality of the project site suggests that they would not choose this site for denning and/or breeding. The site is somewhat isolated from any extant subpopulations of kit fox. Based on the site’s location and the distribution of kit fox occurrences in its vicinity, the site is not essential to the regional movement of kit fox populations. For all intents and purposes, the site would tend to function more as a dispersal sink (i.e., a habitat in which a population is
expected to decline to extinction due to sub-optimal foraging and breeding conditions) than as an area that would facilitate movements or aid in successful breeding.

Most of the project site’s surrounding land uses consist of farmland, rangeland, residential development, and a golf course. These are land uses that are not generally suitable for the San Joaquin kit fox; however, rangelands can provide marginal foraging habitat for this species. The site itself has been heavily managed for agricultural uses rendering onsite habitat for this species marginal, at best. While some open space exists to the northeast of the site, the likelihood that a kit fox would travel through low-quality habitat to utilize the low-quality, managed agricultural field of the site is low. Any occurrence would be of an incidental nature.

Suitable denning habitat for kit foxes was not observed on the site during the October 2007 or February 2008 field surveys. While a number of ground squirrel burrows were observed throughout the agricultural field, none of these possessed the dimensions suitable for kit foxes. Having been modified for agricultural use, the study area provides a limited prey base and, therefore, marginal foraging habitat for kit foxes. Farming practices appear to have also limited the onsite occurrence of ground-nesting birds that sometimes constitute prey for this species.

In summary, kit foxes appear to no longer inhabit the region, the site has been heavily disturbed and modified for agricultural use, and lands surrounding the site include residential development and other unsuitable areas that present significant barriers to movement. Based on this evidence, the kit fox is considered absent from the site.

2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional information.
The only aquatic feature occurring on the site is the stock pond remnant in the site’s northeast corner. However, this appears to be a relict feature, as it does not appear to become inundated following major storm events. Additionally, the stock pond is hydrologically isolated from known Waters of the U.S. and their tributaries, does not replace the functions and values of historic waters, and does not meet the USACE’s technical criteria for jurisdictional wetlands. A Waters of the U.S. analysis was completed for the site, and the USACE determined that no waters, including the remnant stock pond, meet the definition of a Water of the U.S (LOA 2008; USACE 2008). Therefore, no features on the site are subject to regulation by the USACE.

The CDFG and RWQCB would also be unlikely to regulate the remnant stock pond. Although jurisdictional waters are presumed to be absent, these agencies are the final arbiters and could claim jurisdiction over any aquatic resources they determine as present on the site.
3.0 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

Approval of general plans, area plans, and specific projects is subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are carried out. CEQA is concerned with the significance of a proposed project’s impacts. For example, a proposed development project may require the removal of some or all of a site’s existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed.

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest.”

Specific project impacts to biological resources may be considered “significant” if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
• Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

• Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

• Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make a “mandatory findings of significance” if the project has the potential to:

- Substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status.” Permits may be required from both the CDFG and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “Take” is defined by the state of California as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFG and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both
agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

### 3.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., sec. 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.

### 3.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of 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 any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the 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.

### 3.2.4 Wetlands and Other Jurisdictional Waters

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”) subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

- All interstate waters including interstate wetlands:

- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa
lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
• All impoundments of waters otherwise defined as waters of the United States under the definition;
• Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As recently determined by the United States Supreme Court in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision), channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. However, the U.S Supreme Court decisions *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (referred together as the Rapanos decision) impose a "significant nexus" test for federal jurisdiction over wetlands. In June 2007, the USACE and Environmental Protection Agency (EPA) established guidelines for applying the significant nexus standard. This standard includes 1) a case-by-case analysis of the flow characteristics and functions of the tributary or wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters and 2) consideration of hydrologic and ecologic factors (EPA and USACE 2007).

The USACE regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high water marks” on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control
Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction under the SWANCC decision, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The California Department of Fish and Game has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2003). Activities that would disturb these drainages are regulated by the CDFG via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

### 3.2.5 Local Ordinances

No habitat conservation plans (HCP) or natural community conservation plans (NCCP) are in effect for this project. While a draft HCP had been underway in this region for some time, this effort is no longer moving forward. However, San Benito County adopted Ordinance 541 in 1988 to set and collect fees for financing the HCP and for San Joaquin kit fox protection measures. These fees are to be paid by the applicant as a condition of the issuance of a building permit. Monies paid through this ordinance do not provide take authorization under the federal or state Endangered Species Acts.

### 3.3 IMPACTS AND MITIGATIONS SPECIFIC TO THE PROJECT SITE

The proposed project is the construction of 226 single-family, one-and-two story residential units on approximately 56 acres of the northern portion of the site, as well as the construction of a community college campus on the remaining approximately 80 acres. These features will be accessed by both Fairview Road and Highway 25. The campus development has associated infrastructure, including parking spaces, athletic fields, open space, on-campus housing, campus facilities, and future campus expansion areas.
For the purposes of this analysis, it is assumed that any future proposal by the applicant will be consistent with the general locations of the construction sites as currently represented in the tentative site plan provided by EMC Planning Group Inc. (2008). Any appreciable difference in either scope or general location of the proposed project would require an additional impact assessment to ensure that unanticipated impacts to biotic resources are not likely to occur.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impacts. Ten special status vascular plant species are known to occur in the general project vicinity (Table 1). Site development would have no effect on regional populations of these species since the site provides no habitat for special status plants. Therefore, state and federal laws protecting special status plants would not be relevant to development of the site.

Mitigation. Mitigation measures are not warranted.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impacts. Twenty-eight special status animal species occur, or once occurred, regionally (Table 1). Of those, twenty would be absent or unlikely to occur on the site due to unsuitable habitat conditions. These include the coast range newt, California red-legged frog, foothill yellow-legged frog, western spadefoot, western pond turtle, San Joaquin coachwhip, peregrine falcon, burrowing owl, black swift, Vaux’s swift, western yellow-billed cuckoo, tricolored blackbird, yellow-breasted chat, Townsend’s big-eared bat, hoary bat, pallid bat, ringtail, American badger, and San Joaquin kit fox. Eventual project build-out would have no effect on these species because there is little or no likelihood that they are present.

Species that might rarely or occasionally occur on the site as transients, occasional foragers, or winter migrants include golden eagles, white-tailed kites, northern harriers, merlins, and loggerhead shrikes. The site does not provide regionally important foraging habitat for these species. Considerable habitat suitable for migratory movements will continue to be available regionally for these species following development. Migrant and transient species pass through
or over many types of habitats en route to breeding or wintering habitat. For a majority of these species, there is no suitable nesting or roosting habitat on the project site. Therefore, the loss of habitat for these six species would be considered less-than-significant.

The remaining special status animal species, the California tiger salamander, is considered potentially present onsite (section 2.4.1). Potential impacts to and mitigations for those impacts to this species is dealt with specifically below (section 3.3.3).

**Mitigation.** Mitigation measures are not warranted.

### 3.3.3 Impacts to Individual California Tiger Salamanders and Their Habitat

**Potential Impacts.** California tiger salamanders do not presently breed onsite. The closest breeding pond is approximately 0.1 miles south of the site and is separated from the site by development associated with the golf course and the major regional thoroughfare, Highway 25. A few adult CTS associated with onsite breeding events which took place during the early 2000s may continue to inhabit some of the rodent burrows and other ground surface crevices of the site. While this is somewhat unlikely given the intensive farming practices that are currently used to manage the site, it would not be possible to conclude absence without implementing extensive survey methods such as drift fences or scoping each burrow and crevice of the site.

The applicant could implement more extensive survey methodologies that are satisfactory to the resource agencies. If these surveys prove negative, then the project would result in a less-than-significant impact to CTS individuals and their habitats. In the absence of these surveys, the proposed project would be presumed to impact 137 acres of aestivation habitat.

Should California tiger salamanders occur on the site, future site development could result in the loss of individuals, which would likely be considered a take under the state and federal Endangered Species Acts and would require consultation with the USFWS.
We should note that the applicant should complete surveys in conformance to protocols acceptable to the USFWS that would establish the onsite status of the California tiger salamander. If such surveys are completed and California tiger salamanders are determined to be absent from the site, then the project would have no impact on them, and mitigation measures would not be warranted. If, however, the surveys establish that California tiger salamanders are on the site, or if the applicant chooses to forego conducting surveys and, instead, presume that this species is present, then the applicant would need to comply with provisions of the federal and state Endangered Species Acts and would need to seek take authorization from the USFWS and CDFG for project-related losses as required by law. To obtain a take permit, consultation with the U.S. Fish and Wildlife Service would need to be initiated either through a federal nexus (i.e., Section 7 consultation, usually through the USACE or the Bureau of Land Management) or through the HCP process (i.e., Section 10 consultation). Because a federal nexus has not been identified to date, it is likely that the applicant would engage in the Section 10 consultation process.

Mitigation. The following mitigations are designed to reduce project impacts to a less-than-significant level under CEQA. These mitigations are designed to avoid and minimize impacts where possible and then compensate for any residual impacts.

Mitigation Alternative 1: Avoidance. Impacts to California tiger salamanders and their habitat should be avoided to the maximum extent practicable. However, because the entire site constitutes suitable aestivation habitat for this species, complete avoidance would not be feasible.

Mitigation Alternative 2: Minimization. Implementation of the following measures should be taken during site development to avoid take of individual California tiger salamanders.

- A qualified onsite monitor should be present during the initial site grading. The monitor would only need to monitor the site during the rough grading activities. Monitoring could cease once the build-out site has been completely denuded of habitats.
- Exclusion fencing (e.g., silt fencing) should be erected around construction zones to minimize the potential of a CTS dispersing onto the site during construction and should remain in place for the duration of construction. Any CTS detected during these procedures will be moved to suitable habitat by a biologist possessing USFWS authorization to handle CTS.
Mitigation Alternative 3: Compensation. To offset impacts during the CEQA process, as well as to obtain federal and state take authorization for impacts to this species, compensation would be required. Because the entire site is being proposed for project build-out, onsite compensation would not be feasible. Therefore, compensation should occur at a suitable offsite location via the purchase of credits from a nearby conservation bank or by placing suitable habitat under a conservation easement. Because the existing conditions represent a non-sustaining situation, the loss of aestivation habitat should be compensated for at a replacement-to-removal ratio at a minimum of 1:1 (one acre of habitat created or preserved for each acre disturbed). The project applicant is considering potential mitigation options on ranchlands in the hills on the east side of San Benito County that have identified CTS source populations, including both breeding and aestivation habitat. A management plan for these lands would need to be developed in accordance with USFWS guidelines and should include a mechanism for managing these lands in perpetuity.

3.3.4 Impacts to Burrowing Owls

Potential Impacts. Marginally suitable nesting habitat for burrowing owls was present throughout the site in the form of California ground squirrel burrows. Given the current land use practices associated with dry land farming, it is highly unlikely that burrowing owls would breed onsite. Additionally, the site does not appear to be used as foraging habitat, as no evidence of foraging (i.e., feathers and regurgitation pellets) was detected during site visits conducted by LOA during the breeding and non-breeding seasons in 2007 and 2008. Therefore, impacts to burrowing owl habitat are considered less than significant.

While unlikely, the possibility of the burrowing owl’s occurrence on the project site warrants prudent protection measures, should any individuals move onto the site prior to or at the time of site development and associated construction activities. If a burrowing owl were to occupy burrows on or near the project site prior to project-related development activities, these activities could result in the abandonment of active burrows or direct mortality to owls. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual
owls constitute a violation of state and federal laws (see Section 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. Site development could potentially result in the mortality of burrowing owls. Mitigation measures that protect burrowing owls from possible direct mortality or nest failure would be warranted. Therefore, the project applicant should implement the following measures to ensure that adverse impacts to burrowing owls as a result of project construction are avoided.

- **Mitigation Measure 3.3.4a:** A pre-construction survey should be conducted by a qualified biologist for burrowing owls within 30 days of the onset of construction. This survey should be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 1995). All suitable habitats of the project site should be covered during this survey.

- **Mitigation Measure 3.3.4b:** If pre-construction surveys undertaken during the breeding season (February 1 through August 31) locate active nest burrows within or near construction zones, then these nests should not be disturbed, and a construction-free buffer of 250 feet (or as determined by a qualified biologist) should be established around all active owl burrows. The buffer area(s) should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season or until it has been determined by a qualified biologist that chicks have fledged and are independent of their parents.

- **Mitigation Measure 3.3.4c:** During the non-breeding season (September 1 through January 31), resident owls may be relocated to alternative habitat. The relocation of resident owls must be according to a relocation plan prepared by a qualified biologist. Passive relocation would be the preferred method of relocation. The relocation plan must provide for the owl’s relocation to nearby lands possessing available nesting and foraging habitat.

- **Mitigation Measure 3.3.4d:** If burrowing owls are determined to either be breeding or over-wintering on the project site, compensation measures for the loss of habitat will be required in conjunction with CDFG standards (typically 6.5 acres per owl pair or unpaired resident owl).

Full implementation of the measures identified above would mitigate impacts to burrowing owls potentially occurring on the site.
3.3.5 Disturbance to Nesting Raptors

Potential Impacts. Although no tree nests or ground nests were observed on or adjacent to the site during the October 2007 and February 2008 surveys, large trees immediately to the east and south of the site provide potential nesting habitat for tree-nesting raptors. If a raptor, regardless of its federal or state status, were to nest on or adjacent to the site prior to construction, construction activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or other special status birds or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. A qualified biologist should conduct a pre-construction survey for tree- and ground-nesting raptors throughout the site and in all trees within 250 feet of the site no more than 30 days prior to the onset of ground disturbance, if such disturbance will occur during the breeding season (February 1 through August 31). Pre-construction surveys should be used to determine the presence or absence of nesting raptors. If nesting raptors are detected during the survey within 250 feet of proposed project-related development activities, a suitable construction-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 ft.) would be determined at that time and may vary depending on location and species. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents. Pre-construction surveys during the non-breeding season are not necessary for most nesting raptors, including all tree-nesting raptors, as they are expected to abandon their roosts during construction.

Implementation of the above measures would mitigate impacts to tree- and ground-nesting raptors to a less-than-significant level.

3.3.6 Impacts to American Badgers

Potential Impacts. Impacts to the American badger would be similar to those for the burrowing owl. Conversion of the project site’s open agricultural land to housing and a college campus
would result in a less-than-significant loss of habitat for the American badger but may result in harm or injury to individuals of this species, which would constitute a significant adverse impact.

**Mitigation.** Pre-construction surveys conducted for raptors and specifically for burrowing owls should also be used to determine the presence or absence of badgers on individual project sites. In the unlikely event that an active badger den is identified during pre-construction surveys within or immediately adjacent to the construction envelope, a construction-free buffer of up to 300 ft. or a suitable distance specified by the resource agencies (i.e., CDFG) should be established around the den. Because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor should be present onsite during construction activities to ensure the buffer is adequate to avoid direct impact to individuals or nest abandonment. The onsite monitor would be necessary until it is determined that young are of an independent age and construction activities would not harm individual badgers. Once it has been determined that badgers have vacated the site, the burrows could be collapsed or excavated, and ground disturbance could proceed.

### 3.3.7 Impacts to San Joaquin Kit Foxes

**Potential Impacts.** The entire project site consists of agricultural habitat, and no ground squirrel burrows possessing the dimensions suitable for the San Joaquin kit fox were observed on the site during the October 2007 and February 2008 surveys, although protocol-level surveys including 100% visual coverage of the site were not conducted for this species.

As discussed in Section 3.3.2, project development would result in a less-than-significant loss of habitat for the San Joaquin kit fox. However, it is possible, though highly unlikely, that an individual kit fox could move onto the site incidentally prior to construction. Construction-related activities may result in harm or injury to individual kit foxes, should they occur on the site. This would be considered a significant adverse impact.

**Mitigation.** While unlikely, the possibility of the San Joaquin kit fox’s occurrence on the project site warrants prudent protection measures, should any individuals wander onto the site at
the time of site development and associated construction activities. As such, the project proponent should implement the protection measures outlined in the “U.S. Fish and Wildlife Service standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance,” provided in Appendix C and summarized below. While these recommendations were developed by the USFWS Sacramento office, they would be applicable to this project site as well.

- Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on the project site and evaluate their use by kit foxes. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS shall be contacted immediately to determine the best course of action. If no kit fox activity is detected, a written report shall be submitted to the USFWS within five days after completion of the surveys.

- Permanent and temporary construction activities and other types of project-related activities should be carried out in a manner that minimizes disturbance to kit foxes, should their presence be detected on the site during pre-construction surveys. Minimization measures include, but are not limited to: restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.

- The Ventura field office of the USFWS and the Fresno field office of the CDFG will be notified in writing within three working days in case of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Implementation of these measures would minimize the risk that construction activities during site development would result in mortality to individual kit foxes.

3.3.8 Loss of Habitat for Native Wildlife

Potential Impacts. The entire site is regularly managed for agricultural uses resulting in an open space that provides only low-quality habitat for species that occur regionally. Only disturbed habitats occur on the site. Due to the low-quality habitat that would be impacted by
project development, the loss of habitat for native wildlife resulting from the proposed project would constitute a less-than-significant impact.

**Mitigation.** Mitigation measures are not warranted.

### 3.3.9 Interference with the Movement of Native Wildlife

**Potential Impacts.** The project site itself provides minimal dispersal habitat for native wildlife and does not function as a significant movement corridor for native wildlife because it is not unique to the region and is bordered to the west and south by human development. Site development is not expected to have a significant effect on home range and dispersal movements of native wildlife that may occur in the region. Therefore, the project would result in a less-than-significant impact on the movements of native wildlife.

**Mitigation.** Mitigation measures are not warranted.

### 3.3.10 Disturbance to Waters of the United States or Riparian Habitats

**Potential Impacts.** Pending a site verification by the USACE, no wetlands or other jurisdictional waters presumably occur on the project site. Therefore, state and federal regulations protecting jurisdictional waters would not be relevant to development of the site. The project would also have no effect on riparian habitats or other sensitive natural communities, as none of these occur on the project site.

**Mitigation.** Mitigation measures are not warranted.

### 3.3.11 Degradation of Water Quality in Seasonal Drainages, Stock Ponds, and Downstream Waters

**Potential Impacts.** Extensive grading often leaves the soils of construction zones barren of vegetation and, therefore, vulnerable to erosion. Eroded soil can be carried as sediment in seasonal creeks to be deposited in creek beds and adjacent wetlands. The site itself and the surrounding areas are comprised of fairly level terrain. Therefore, the potential for erosion and the degradation of water quality in local creeks is negligible.
Furthermore, the applicant is expected to comply with the provisions of a City or County grading permit, including standard erosion control measures that employ best management practices (BMPs). Compliance with the above permit(s) should result in no impact to water quality in seasonal creeks, reservoirs, and downstream waters from the proposed project and should not result in the deposition of pollutants and sediments in sensitive riparian and wetland habitats.

Mitigation. Mitigation measures are not warranted.

3.3.12 Local Ordinances or Habitat Conservation Plans

Potential Impacts. No local ordinances, HCPs, or NCCPs are in effect for this project. While a draft HCP had been underway in this region for some time, this effort is no longer moving forward and, as such, the project will not conflict with an HCP/NCCP. Therefore, the proposed project would not be impacted by any local policies related to biological resources.

Mitigation. Mitigation measures are not warranted.
LITERATURE CITED


**APPENDIX A: VASCULAR PLANTS OF THE STUDY AREA**

The plants species listed below were observed on the Gavilan College/Fairview Corners site during the field survey conducted by Live Oak Associates in 2007 and 2008. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

- **OBL** - Obligate
- **FACW** - Facultative Wetland
- **FAC** - Facultative
- **FACU** - Facultative Upland
- **UPL** - Upland
- **+/−** - Higher/lower end of category
- **NI** - No investigation

<table>
<thead>
<tr>
<th>APIACEAE – Carrot Family</th>
<th>Poisson hemlock</th>
<th>FACW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conium maculatum*</td>
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| ASTERACEAE - Sunflower Family     |                 |      |
| Baccharis pilularis               | Coyote brush    | UPL  |
| Centaurea solstitialis*          | Yellow star thistle | UPL |
| Cirsium vulgare                  | Bull thistle    | FACU |
| Heterotheca grandiflora          | Telegraph weed  | UPL  |
| Xanthium spinosum                | Spiny cocklebur | FAC+ |

| BORAGINACEAE – Borage Family      |                 |      |
| Amsinckia menziesii              | Small-flowered fiddleneck | UPL |

| BRASSICACEAE – Mustard Family     |                 |      |
| Hirschfeldia incana*             | Summer mustard  | UPL  |

| CONVOLVULACEAE – Morning-Glory Family |     |      |
| Convulvulus arvensis*             | Field bindweed | UPL  |

| EUPHORBIACEAE – Spurge Family     |                 |      |
| Eremocarpus setigerus             | Turkey mullein  | UPL  |

| FABACEAE – Legume Family          |                 |      |
| Medicago polymorpha*             | Burclover       | UPL  |

| GERANIACEAE – Geranium Family     |                 |      |
| Erodium botrys*                  | Broadleaf filaree | UPL |
| Geranium dissectum*              | Wild geranium   | UPL  |

| LAMIACEAE – Mint Family           |                 |      |
| Trichostema lanceolatum           | Vinegarweed     | UPL  |

| MALVACEAE – Mallow Family         |                 |      |
| Malva sp.*                        | Mallow          | UPL  |

| ONAGRACEAE – Evening Primrose Family |     |      |
| Epilobium sp.                      | Willowherb     | -    |

| PAPAVERACEAE – Poppy Family       |                 |      |
| Eschscholzia californica          | California poppy | UPL  |

| PLANTAGINACEAE – Plantain Family  |                 |      |
| Plantago lanceolata*              | English plantain | FAC- |
POACEAE - Grass Family

* Avena sp.  Wild oat  -
* Bromus diandrus*  Ripgut brome  UPL
* Bromus hordeaceus*  Soft chess  FACU-
* Hordeum marinum ssp. gussoneanum*  Mediterranean barley  FAC
* Phalaris californica  Canary grass  FAC
* Triticum aestivum*  Common wheat  UPL

POLYGONACEAE – Buckwheat Family

* Rumex crispus*  Curly dock  FACW-

* Introduced non-native species
APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE STUDY AREA

The species listed below are those that may reasonably be expected to use the habitats of the study area routinely from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the study area in October 2007 and/or February 2008 have been noted with an asterisk.

CLASS AMPHIBIA (Amphibians)
ORDER CAUDATA (Salamanders)
FAMILY: AMBYSTOMATIDAE (Mole Salamanders and Relatives)
California tiger salamander *Ambystoma californiense*

ORDER ANURA (Frogs and Toads)
FAMILY: PELOBATIDAE (Spadefoot Toads)
Western spadefoot *Spea hammondii*

FAMILY: BUFONIDAE (True Toads)
Western toad *Bufo boreas*

FAMILY: HYLIDAE (Treefrogs and Relatives)
Pacific treefrog *Pseudacris regilla*

FAMILY: RANIDAE
Bullfrog *Rana catesbeiana*
California red-legged frog *Rana aurora*

CLASS REPTILIA (Reptiles)
ORDER SQUAMATA (Lizards and Snakes)
SUBORDER SAURIA (Lizards)
FAMILY: PHRYNOSOMATIDAE
Western fence lizard *Sceloporus occidentalis*

CLASS AVES (Birds)
ORDER CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: CATHARTIDAE (New World Vultures)
Turkey vulture *Cathartes aura*

ORDER FALCONIFORMES (Vultures, Hawks and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures and Harriers)
Red-shouldered hawk *Buteo lineatus*
*Golden eagle *Aquila chrysaetos*
Rough-legged hawk *Buteo lagopus*
Ferruginous hawk *Buteo regalis*
*Red-tailed hawk *Buteo jamaicensis*
White-tailed kite *Elanus leucurus*
Sharp-shinned hawk *Accipiter striatus*
Northern harrier *Circus cyaneus*

FAMILY: FALCONIDAE (Caracaras and Falcons)
Prairie falcon  
Merlin  
**FAMILY: FALCONIDAE (Caracaras and Falcons)**  
*American kestrel  
**ORDER GALLIFORMES (Magapodes, Curassows, Pheasants and Relatives)**  
**FAMILY: ODONTOPHORIDAE (New World Quail)**  
California quail  
**ORDER COLUMBIFORMES (Pigeons and Doves)**  
**FAMILY: COLUMBIDAE (Pigeons and Doves)**  
*Rock dove  
Band-tailed pigeon  
*Mourning dove  
**ORDER STRIGIFORMES (Owls)**  
**FAMILY: STRIGIDAE (Typical Owls)**  
Western screech owl  
Great horned owl  
**ORDER APODIFORMES (Swifts and Hummingbirds)**  
**FAMILY: TROCHILIDAE (Hummingbirds)**  
Anna’s hummingbird  
Allen’s hummingbird  
**ORDER PICIFORMES (Woodpeckers and Relatives)**  
**FAMILY: PICIDAE (Woodpeckers and Wrynecks)**  
Downy woodpecker  
**ORDER PASSERIFORMES (Perching Birds)**  
**FAMILY: TYRANNIDAE (Tyrant Flycatchers)**  
*Say’s phoebe  
Black phoebe  
**FAMILY: CORVIDAE (Jays, Magpies and Crows)**  
Steller’s jay  
Western scrub-jay  
American crow  
Common raven  
**FAMILY: TROGLODYTIDAE (Wrens)**  
House wren  
**FAMILY: TURDIDAE (Thrushes)**  
American robin  
**FAMILY: MIMIDAE (Mockingbirds and Thrashers)**  
*Northern mockingbird  
**FAMILY: STURNIDAE (Starlings and Allies)**  
European starling  
**FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)**  
Brown-headed cowbird  
Red-winged blackbird  
*Western meadowlark  
*Brewer’s blackbird  
**FAMILY: FRINGILLIDAE (Finches)**
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purple finch</td>
<td><em>Carpodacus purpureus</em></td>
</tr>
<tr>
<td>House finch</td>
<td><em>Carpodacus mexicanus</em></td>
</tr>
<tr>
<td>American goldfinch</td>
<td><em>Carduelis tristis</em></td>
</tr>
<tr>
<td><em>Lesser goldfinch</em></td>
<td><em>Carduelis psaltria</em></td>
</tr>
<tr>
<td><strong>FAMILY: PASSERIDAE (Old World Sparrows)</strong></td>
<td></td>
</tr>
<tr>
<td>House sparrow</td>
<td><em>Passer domesticus</em></td>
</tr>
</tbody>
</table>

**CLASS MAMMALIA (Mammals)**

**ORDER DIDELPHIMORPHIA (Marsupials)**
**FAMILY: DIDELPHIDAE (Opossums)**
- Virginia opossum: *Didelphis virginiana*

**ORDER RODENTIA (Rodents)**
**FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)**
- *California ground squirrel*: *Spermophilus beecheyi*
**FAMILY: GEOMYIDAE (Pocket Gophers)**
- *Botta's pocket gopher*: *Thomomys bottae*
**FAMILY: MURIDAE (Mice, Rats and Voles)**
- Norway rat: *Rattus norvegicus*
- House mouse: *Mus musculus*

**ORDER CARNIVORA (Carnivores)**
**FAMILY: CANIDAE (Foxes, Wolves and Relatives)**
- Domestic dog: *Canis familiaris*
- Coyote: *Canis latrans*
- Red Fox: *Vulpes vulpes*
- Gray Fox: *Urocyon cinereoargenteus*
**FAMILY: PROCYONIDAE (Raccoons and Relatives)**
- Raccoon: *Procyon lotor*

**FAMILY: MUSTELIDAE (Weasels and Relatives)**
- Western Spotted Skunk: *Spilogale gracilis*
- Striped Skunk: *Mephitis mephitis*

**FAMILY: FELIDAE (Cats)**
- Feral cat: *Felis catus*
APPENDIX C: U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

Prepared by the Sacramento Fish and Wildlife Office, June 1999

Contact information updated by LOA, April 2008
INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act). Project applicants should contact the Service in Ventura to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Formal authorization for the project may be required under either section 7 or section 10 of the Act. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). Such protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

All surveys, den destructions, and monitoring described in this document must be conducted by a qualified biologist. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, biologist(s) must be able to identify coyote, red fox, gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints such as an individual in-fill oil well, communication tower, or bridge repair. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a
STANDARD RECOMMENDATIONS

future urban development). The Service recommends that on these small projects, the biologist
survey the proposed project boundary and a 200-foot area outside of the project footprint to
identify habitat features, and make recommendations on situating the project to minimize or
avoid impacts. If habitat features cannot be completely avoided, then preconstruction surveys
should be conducted.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30
days prior to the beginning of ground disturbance and/or construction activities or any project
activity likely to impact the San Joaquin kit fox. Surveys should identify kit fox habitat features
on the project site and evaluate use by kit fox and, if possible, and assess the potential impacts to
the kit fox by the proposed activity. The status of all dens should be determined and mapped (see
Survey Protocol).

Written results of preconstruction/preactivity surveys must be received by the Service within five
days after survey completion and prior to the start of ground disturbance and/or construction
activities. If a natal/pupping den is discovered within the project area or within 200-feet of the
project boundary, the Service shall be immediately notified. If the preconstruction/preactivity
survey reveals an active natal pupping or new information, the project applicant should contact
the Service immediately to obtain the necessary take authorization/permit.

If take authorization/permit has already been issued, then the biologist may proceed with den
destruction within the project boundary, except natal/pupping dens (active or inactive). Protective
exclusion zones can be placed around all known and potential dens which occur outside the
project footprint (conversely, the project boundary can be demarcated, see den destruction
section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take
authorization/permit from the Service. This determination would be made by the Service during
the early evaluation process (see Survey Protocol). These other projects would include, but are
not limited to: linear projects; projects with large footprints such as urban development; and
projects which in themselves may be small but have far reaching impacts (i.e., water storage or
conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection
measures presented in this document. The take authorization/permit may include measures
specific to the needs of the project, and those requirements supersede any requirements found in
this document.
EXCLUSION ZONES

The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances. The following radii are minimums, and if they cannot be followed the Service must be contacted:

<table>
<thead>
<tr>
<th>Den Type</th>
<th>Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential den</td>
<td>50 feet</td>
</tr>
<tr>
<td>Known den</td>
<td>100 feet</td>
</tr>
<tr>
<td>Natal/pupping den (occupied and unoccupied)</td>
<td>Service must be contacted</td>
</tr>
<tr>
<td>Atypical den</td>
<td>50 feet</td>
</tr>
</tbody>
</table>

**Known den:** To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

**Potential and Atypical dens:** Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Construction and other project activities should be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited within the exclusion zones.

DESTRUCTION OF DENs

Disturbance to all San Joaquin kit fox dens should be avoided to the maximum extent possible. Protection provided by kit fox dens for use as shelter, escape, cover, and reproduction is vital to the survival of the species. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. **Destruction of any known or natal/pupping kit fox den requires take authorization/perm from the Service.**
Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use. If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal’s normal foraging activities. The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgement of the biologist, the animal has escaped from the partially destroyed den.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then destruction shall cease and the Service shall be notified immediately.

CONSTRUCTION AND OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of project-related disturbance should be minimized. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be
included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under number 13 of this section must be followed.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets should be permitted on project sites.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control
must be conducted, zinc phosphide should be used because of proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped individual. The representative will be identified during the employee education program. The representative's name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has expected impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and agency personnel involved in the project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the above-mentioned people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for advice.

12. Any contractor, employee, or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.

13. The Ventura Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during
project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers given below. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, California 95814, (916) 654-4262.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

2493 Portola Road, Suite B
Ventura, CA 93003
(805) 644-1766
"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species’ range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.