

SUMMARY

The project site is mainly composed of agricultural fields, which are greatly disturbed and dominated by non-native plant species. Nonetheless, the site provides foraging habitat for several common and special-status wildlife species. The proposed project would potentially result in the following significant impacts: loss of valley elderberry longhorn beetle habitat; loss of individual giant garter snake; loss of active nests of common and special-status birds; and loss of native trees. Potentially significant indirect impacts include effects on stormwater runoff and increased light and glare. The project would also contribute to significant cumulative impacts related to the general loss of wildlife habitat. All of the project level impacts can be mitigated to a less-than-significant level with the mitigation measures identified in this section.

INTRODUCTION

This section is based on a review of a number of biological studies that have been previously conducted within the project site. In particular, this section is based on the following reports:

- *Lent Ranch General Plan Amendment, Rezone and Transportation System Management Plan: Draft Environmental Impact Report, Sacramento County Department of Environmental Review and Assessment, May 1999;*
- *Wetland Delineation- Lent Ranch Property, Gibson and Skordal Wetland Consultants, May 1998;*
- *Jurisdictional Determination- Irrigation Ponds and Ditch Associated with Lent Ranch, Gibson and Skordal Wetland Consultants, January 1999;*
- *Update of Biological Resources Inventory- Lent Ranch Property, Gibson and Skordal Wetland Consultants, July 1998;*
- *Special-Status Species Inventory of the Lent Ranch Drainage Area, Miriam Green Associates, January 1999;*
- *Lent Ranch Preliminary Arborist Report, Tree Care Incorporated, September 1997; and*
- *Tree Exhibits, Murray Smith and Associates, July 1997.*

Impact Sciences also conducted a review of the most recent lists of special-status species potentially occurring on the site. This review included lists from the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS).^{1,2,3,4,5}

In addition to the field work conducted by various biologists referenced in the above reports, an Impact Sciences biologist visited the site on February 4, and July 14, 2000, to confirm the previous biological information and to document any changes in vegetation or other biological conditions.

EXISTING CONDITIONS

The project site is within the newly incorporated City of Elk Grove, southeast of the City of Sacramento, and is bordered by West Stockton Boulevard and SR 99 to the east, and generally by Kammerer Road to the south. The site consists of 294.8 acres of largely non-native cropland with several residences and related structures. Drainage ditches and dirt roads cross the site, as well as a small paved landing strip, which runs parallel to West Stockton Boulevard.

The drainage ditches are approximately two to three feet in width and drain into a single main drainage ditch, which roughly bisects the site from east to west and is approximately 20 feet wide. The site is approximately 1 1/2 miles northwest of the Cosumnes River; however, drainage from the site flows west, toward Beach- Stone Lakes, as part of the Stone Lake Creek watershed. A small, shallow irrigation recovery basin with several trees and elderberry shrubs is located west of the western boundary of the site. The basin and off-site portions of the large drainage ditch are included in this analysis because they would be affected by stormwater drainage improvements proposed as part of the project.

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- 1 California Department of Fish and Game, *California Natural Diversity Data Base*, Records of Occurrence in Computer Report Format for the Bruceville, Elk Grove, Florin, and Galt USGS 7.5-minute quadrangle maps, November 1999.
 - 2 California Department of Fish and Game, *Special Animals*. California Department of Fish and Game, State of California Resources Agency, Sacramento, California, June 1999.
 - 3 Mark W. Skinner and Bruce M. Pavlik, *Inventory of Rare and Endangered Vascular Plants of California*, California Native Plant Society Special Publication No. 1 (Fifth Edition), 1994.
 - 4 California Department of Fish and Game, *Special Plants List*. California Department of Fish and Game, State of California Resources Agency, Sacramento, California, June 1999.
 - 5 California Native Plant Society, *Electronic Inventory of Rare and Endangered Vascular Plants of California*, Bruceville, Elk Grove, Florin, and Galt U.S. Geological Survey USGS 7.5-minute topographic quadrangle maps, June 1998.

Plant Communities

The agricultural fields on the site alternate seasonally between being cultivated with various row crops and lying fallow. Annual non-native grasses can become established along the fencelines, roads, and ditches and emergent riparian plants grow along the main drainage ditch. At the time of the site visit in February 2000, the main ditch was only sparsely vegetated due to agricultural grading and burning. Nonetheless, the ditch and nearby irrigation basin contained some wetland habitat values, with remnants of bulrush (*Scirpus acutus*), cattails (*Typha latifolia*), rabbit-foot grass (*Polypogon monspeliensis*), and curly dock (*Rumex crispus*) from the previous growing season. In addition, the site contains a number of trees, including native oaks (*Quercus* sp.). Despite the presence of some native plant species, the extensive disturbance from past and present agricultural use of the site does not provide any intact natural plant communities. Trees on the site are discussed in greater detail later in this section.

Common Wildlife

The Lent Ranch site provides habitat for a number of vertebrate wildlife species. Most of these species are typically found in agricultural, urban, or grassland habitats. Because the agricultural fields are disturbed by regular plowing, fertilizing, harvesting and other activities, and because the site is adjacent to large blocks of similarly managed farmland, many common wildlife species have likely been extirpated from the site. However, several special-status wildlife species are known to occur, or have the potential of occurring on the Lent Ranch site. These species are discussed separately in a later part of this section.

Amphibians and reptiles, which are particularly sensitive to disturbance and pollutants, are likely limited on site. Nonetheless, the Pacific chorus frog [*Pseudacris (Hyla) regilla*] is very common in moist areas of California, and likely occurs and breeds on site in any standing water, such as puddles in the main ditch or the basin west of the site, although none were detected during the Impact Sciences site visit. The drainage ditch does not contain sufficient water or intact vegetation to support other, more restricted or slower developing amphibian species, except perhaps in very low numbers. The tree litter near the existing houses and limited grassland vegetation may support small numbers of western fence lizards (*Sceloporus occidentalis*), gopher snakes (*Pituophis melanoleucus*), and alligator lizards (*Gerrhonotus multicarinatus*).

During the field reconnaissance in February 2000, 14 species of birds were identified either through vocalizations or through direct observation. These species included insectivorous and granivorous birds occurring in the grasslands, such as house finch (*Carpodacus mexicanus*), California towhee (*Pipilo fuscus*), savannah sparrow (*Passerculus sandwichensis*), mourning dove (*Zenaida macroura*), and western

meadowlark (*Sturnella neglecta*). Predaceous birds are common in open agricultural habitats; of these, red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), and American kestrel (*Falco sparverius*) were observed foraging on or near the property.

Although small rodent species can be adversely affected by agricultural activities such as plowing and harvesting, their reproductive rate allows some species to flourish in agricultural areas. These species include voles (*Microtus* sp.), pocket gopher (*Thomomys bottae*) and deer mice (*Peromyscus maniculatus*). Several large burrows along the main ditch were likely those of the larger California ground squirrel (*Spermophilus beecheyi*). Rodents and other small animals provide food for larger mammals such as coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*), as well as predatory birds.

Special -Status Resources

The following discussion describes biological resources present, or potentially occurring, on the project site that have been afforded special recognition by federal, state, and/or local resource agencies or jurisdictions, or recognized resource conservation organizations. Special-status habitats (habitats or plant communities considered rare or unique or that support special-status species), areas under the jurisdiction resource agencies, and wildlife movement corridors are also discussed in this section.

Special-Status Plant Species

Special-status plant species include those that are state- or federally-listed as rare, threatened, or endangered, federal candidates for listing, proposed for state or federal listing, or listed as federal species of concern or state species of special concern. In addition, plants included on Lists 1, 2, 3, or 4 of the CNPS inventory, or otherwise considered of concern by the CNPS, are also considered special-status.

The following discussion is based on the results of the February 2000 site survey, previous assessments in 1997 and 1999, and additional relevant information on various plant species. The 1997 assessment by Gibson and Skordal identified the Bogg's Lake hedge-hyssop, which occurs in vernal pools and freshwater marsh in the area, as having a low potential of occurring near the basin west of the site, but did not identify any suitable habitat on site for this species, due to the disturbed nature of the basin and ditches. Special-status plant species potentially occurring on the site or in the vicinity and/or identified in the 1999 County Draft EIR are presented in **Table 4.8-1**. Because these species all require intact wetland habitats, none of these species is expected to occur on the site.

**Table 4.8-1
Special-Status Plant Species Potentially Occurring on or in the Vicinity of the Lent Ranch Site**

Common and Scientific Name	Status			Habitat Requirements	Life Form and Flowering Period	Potential Occurrence
	Federal	State	CNPS			
Dwarf downingia <i>Downingia pusilla</i>	--	--	2	Valley and foothill grassland, vernal pools.	Annual Herb Mar- May	<i>Not Expected:</i> No suitable habitat on site.
Bogg's Lake Hedge-hyssop <i>Gratiola heterosepala</i>	--	CE	1B	Marsh and swamp edges, vernal pools, clay.	Annual Herb Apr-Aug	<i>Not Expected:</i> No suitable habitat on site.
Rose-mallow <i>Hibiscus lasiocarpus</i>	--	--	2	Freshwater marsh/swamp.	Perennial herb Jun-Sept	<i>Not Expected:</i> No suitable habitat on site.
Northern California black walnut <i>Juglans hindsii</i>	FSC	--	1B	Riparian woodlands.	Tree	<i>Not Expected:</i> No suitable habitat on site.
Delta tule pea <i>Lathyrus jepsonii var. jepsonii</i>	FSC	--	1B	Freshwater and brackish marsh/swamp.	Perennial Herb May-Sept	<i>Not Expected:</i> No suitable habitat on site.
Legenere <i>Legenere limosa</i>	FSC	--	1B	Vernal pools.	Annual herb Apr-Jun	<i>Not Expected:</i> No suitable habitat on site.
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	FSC	Rare	1B	Freshwater and brackish marsh/swamp; riparian scrub.	Perennial Herb Apr-Nov	<i>Not Expected:</i> No suitable habitat on site.
Slender orcutt grass <i>Orcuttia tenuis</i>	FT	CE	1B	Vernal pools.	Annual Herb May-Oct	<i>Not Expected:</i> No suitable habitat onsite.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	FSC	--	1B	Freshwater marsh/swamp.	Perennial Herb May-Oct	<i>Not Expected:</i> No suitable habitat onsite.

STATUS KEY:

CE: California Endangered
Rare: California Rare
FT: Federally Threatened
FSC: Federal Species of Concern

CNPS

1B: Plants rare, threatened, or endangered in California and elsewhere
2: Plants rare, threatened, or endangered in California but common elsewhere.

Special-Status Wildlife Species

Special-status wildlife species include those that are state- or federally-listed as threatened or endangered, proposed for listing as threatened or endangered, designated as state or federal candidates for listing, considered state species of special concern or federal species of concern, or that are considered a state special animal or state-listed as protected. Species potentially occurring on the site or in the vicinity are listed in **Table 4.8-2**. Those species observed or with moderate to high potential to occur on the site are discussed in more detail below.

Invertebrates

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*); **Federally Threatened**. This large, colorful beetle is found in mature elderberry shrubs in the Sacramento Valley, particularly in dense riparian stands along the Sacramento River. Adult beetles lay eggs on the elderberry, from which the larvae hatch and bore into the plant. After pupation, new adults emerge from the plant, leaving a characteristic exit hole. The presence of exit holes can confirm the presence of the valley elderberry longhorn beetle, although the FWS considers all elderberry plants with stems one inch or greater in diameter at ground level potential habitat.

An 8- by 30-foot patch of elderberry shrubs is located along the western edge of the basin west of the site. A recent (July 2000) survey of the shrubs by Impact Sciences biologists indicates that only three stems on shrubs within the patch were one inch or greater in diameter and no exit holes exist. The FWS Guidelines suggest that outside of the period of adult emergence (late March through June), beetles are largely confined to the plants with stems over one inch in diameter; therefore, beetles are not expected to occur on the smaller shrubs for most of the year. While exit holes can confirm the presence of Valley elderberry longhorn beetle, it does not prove their absence, since the entrance holes can be too small to be visible.

**Table 4.8-2
Special-Status Wildlife Species Potentially Occurring on or in the Vicinity of the Lent Ranch Site**

Common and Scientific Name	Status		Habitat Requirements	Potential Occurrence
	Federal	State		
<i>Invertebrates</i>				
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	--	Vernal pools with clear to tea-colored water in grass or mud-bottomed swales.	<i>Not Expected:</i> No suitable pools on site.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	--	Riparian forests containing elderberry (<i>Sambucus</i> spp.).	<i>High Potential:</i> Several elderberry shrubs alongside basin west of site.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	--	Clear to turbid vernal pools with grass bottomed swales in grasslands.	<i>Not Expected:</i> No suitable pools on site.
<i>Amphibians and Reptiles</i>				
California tiger salamander <i>Ambystoma californiense</i>	FC	CSC, CP	Grasslands and low foothills. Breeds in long lasting rain pools and uses nearby hardpan soils for summer refuge.	<i>Not Expected:</i> No suitable pools on site.
Northwestern pond turtle <i>Clemmys marmorata marmorata</i>	FSC	CSC, CP	Streams, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	<i>Not Expected:</i> No suitable pools/ creeks on site.
Giant garter snake <i>Thamnophis gigas</i>	FT	CT	Sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.	<i>Present:</i> Observed on lawn adjacent to on-site residence. Drainages on-site greatly disturbed, with little vegetation. Habitat considered poor.

Table 4.8-2 (continued)
Special-Status Wildlife Species Potentially Occurring on or in the Vicinity of the Lent Ranch Site

Common and Scientific Name	Status		Habitat Requirements	Potential Occurrence
	Federal	State		
<i>Birds</i>				
Cooper's hawk (nest) <i>Accipiter cooperi</i>	--	CSC	Forages and nests in dense woodland, preferably near riparian areas.	<i>Not Expected:</i> No suitably dense woodlands on site.
Tricolored blackbird <i>Agelaius tricolor</i>	FSC	CSC	Forages and nests in freshwater marsh and riparian scrub.	<i>Moderate Potential:</i> May forage on site, but site does not contain suitable nesting habitat.
Swainson's hawk <i>Buteo swainsoni</i>	FSC	CT	Forages in open grasslands and agricultural areas and nests in nearby trees, particularly near riparian habitats.	<i>Moderate Potential:</i> May forage or nest on site, but not observed in vicinity.
Northern harrier <i>Circus cyaneus</i>	--	CSC	Nests and forages in wetland and riparian habitats, shrub and grass uplands, and farmland habitats.	<i>Present:</i> Observed foraging nearby, but site does not contain suitable nesting habitat.
White-tailed kite <i>Elanus leucurus</i>	--	CFP	Forages in open vegetation and nests in riparian or oak woodlands.	<i>Present:</i> Observed foraging nearby, but site contains low quality nesting habitat.
Western burrowing owl (burrow) <i>Speotyto [Athene] cunicularia hypugeta</i>	FSC	CSC	Forages and nests in grasslands and open scrub with small mammal burrows.	<i>Moderate Potential:</i> Site contains suitable breeding and roosting burrows and foraging habitat.
Loggerhead shrike <i>Lanius ludovicianus</i>	FSC	CSC	Forages in grasslands with scattered shrubs, trees, fences or other perches. Nests in dense tree thickets.	<i>Moderate Potential:</i> May forage on site, but site contains low quality nesting habitat.
California horned lark <i>Eremophila alpestris actia</i>	--	CSC	Grasslands, disturbed areas, agriculture fields, and beach areas.	<i>Present:</i> Observed foraging in open fields on site. Suitable nesting habitat onsite.

STATUS KEY:Federal

FT: Federally Threatened
 FC: Federal Candidate for listing as threatened or endangered
 FSC: Federal Species of Concern

State

CE: California Endangered
 CT: California Threatened
 CP: California Protected
 CFP: California Fully Protected
 CSC: California Species of Special Concern

Amphibians and Reptiles

Giant garter snake (*Thamnophis gigas*); **Federal Threatened, California Threatened.** The giant garter snake inhabits marshes, sloughs, ponds, small lakes, low gradient streams, other waterways and agricultural wetlands such as irrigation and drainage canals and rice fields, and the adjacent uplands. The snake typically inhabits small mammal burrows and other soil crevices above prevailing flood elevations throughout its winter dormancy period (i.e., November to mid-March). Giant garter snakes typically select burrows with sunny exposure along south and west facing slopes. This species also uses

burrows as refuge from extreme heat during their active period (May to October). Burrows used by the snakes can occur at large distances from aquatic habitats. Overwintering snakes have been documented using burrows as far as 900 feet from the edge of aquatic habitat. CDFG studies indicate that giant garter snake populations currently are distributed in portions of the rice production zones of Sacramento, Sutter, Butte, Colusa, and Glenn Counties; along the western border of the Yolo Bypass in Yolo County; and along the eastern fringes of the Sacramento-San Joaquin River delta from the Laguna Creek-Elk Grove region of central Sacramento County southward to the Stockton area of San Joaquin County.

A giant garter snake was observed on the proposed project site during a site field survey conducted in July 2000. It was found on a lawn area adjacent to a residence located on the site. Habitat on-site for this species does not occur; ditches with suitable water and vegetation were not observed at the time of the field reconnaissance surveys in 1998, 1999 and 2000. The nearest suitable habitat for this species is immediately west of the project site where the extension of the on-site ditch does contain standing water, aquatic vegetation, and adequate prey.

According to NDDDB records, the nearest prior giant garter snake sightings were at least 3.5 miles from the project area, although an extirpated occurrence was reported approximately three miles northwest (Natural Diversity Data Base 1999).

Birds

Tricolored blackbird (*Agelaius tricolor*); *Federal Species of Concern, California Species of Special Concern.* This species inhabits freshwater marshes and riparian scrub and is a year-round resident of the Sacramento Valley and the coast, south of Sonoma County. Tricolored blackbirds typically forage in grasslands and croplands and breed in emergent wetlands with dense vegetation, including thickets of blackberries, thistles, or nettles. Much of the area on the site may provide foraging habitat for tricolored and mixed-species flocks of blackbirds, but no suitably dense vegetation is available for breeding on the Lent Ranch site.

Swainson's hawk (*Buteo swainsoni*); *Federal Species of Concern, California Threatened.* The Swainson's hawk breeds in the grasslands of the Sacramento and San Joaquin Valleys and other areas of Central California and migrates south to Central and South America during the winter. This species typically nests in or near riparian woodlands. The 1999 EIR for the Lent Ranch project site identified over a dozen active Swainson's hawk nests within ten miles of the project site, several within one to five miles of the site. This species likely forages periodically on the Lent Ranch site and may nest on the site. A large sticknest was observed in February 2000 alongside the small basin west of the site. Although the site

receives a moderate level of disturbance from agricultural activities, a Swainson's hawk or other bird of prey could have used the nest during the previous breeding season. However, this cannot be confirmed.

White-tailed kite (*Elanus Leucurus*); **California Fully Protected**. The white-tailed kite is a year-round resident of the coastal and lowland valleys of California and typically nests in riparian and oak woodlands. While the site contains a number of trees, it is unlikely that they provide suitable nest sites for this species, due to the sparse cover they provide. Kites were observed foraging in the site vicinity during the January 1999 field survey by Miriam Green Associates and likely forage periodically on the site. As described above, a large raptor nest was observed in February 2000 that, while in poor habitat for white-tailed kites, may have been used by either kites or Swainson's hawks.

Northern harrier (*Circus cyaneus*); **California Species of Special Concern**. Northern harriers prefer habitat consisting of open grasslands, meadows, and emergent wetlands, where it nests on the ground in shrub-dominated vegetation. This species forages and breeds in suitable habitat throughout the Sacramento Valley and coastal California. The agricultural fields and drainage ditches, where this species has been observed, provide suitable foraging habitat, but the disturbed condition of the site and the lack of suitable shrubs or tall grasses does not likely provide suitable cover during the breeding season for harriers to nest on site.

Burrowing owl (*Speotyto (= Athene) cunicularia hypugea*); **Federal Species of Concern, California Species of Special Concern**. Burrowing owls use mammal burrows, particularly those of the California ground squirrel, for roosting and nesting sites and are year-round residents in the Sacramento Valley. This small owl feeds on small animals and arthropods in dry, open habitats such as grasslands and alkaline flats. Many areas in California that do not support breeding burrowing owls provide important winter foraging habitat for owls migrating from other areas. A burrowing owl was observed approximately 3/4 mile west of the site in January 1999, using a ground squirrel burrow on the main irrigation ditch that extends through the Lent Ranch site. Much of the Lent Ranch site provides potentially suitable foraging habitat for this species, and the portion of the ditch on the project site contains several small mammal burrows that may be suitable for roosting and breeding.

Loggerhead shrike (*Lanius ludovicianus*); **Federal Species of Concern, California Species of Special Concern**. This predaceous songbird prefers open habitats with scattered shrubs, trees, fences, or other perches and typically nests in dense shrubs or trees. No suitable nesting habitat occurs on the Lent Ranch site, although this species may forage on the site.

California horned lark (*Eremophila alpestris actia*); **California Species of Special Concern**. The horned lark lives in a variety of open habitats where trees and large shrubs are absent, including grasslands and agricultural fields. A large flock of horned larks were observed foraging on the site in February 2000 and may nest on site in undisturbed areas.

Native Trees

A tree survey was conducted on the project site in July 1997.⁶ A field verification of the tree survey was conducted by Impact Sciences biologists in July 2000. This verification confirmed that the information contained in the tree survey is still accurate with one exception; an ornamental ash tree was found to have grown somewhat, from an 18-inch diameter trunk at breast height (dbh) to a 20-inch trunk. The following information is a summary of the results of this survey. A more complete discussion can be found in the tree report in **Appendix 4.8**.

The site contains a total of 159 trees, most of which are ornamental species, including eucalyptus (gum), olive, fig, plum, and ash. Of the total number of trees on site, 14 are native oak trees and 56 are non-native trees large enough to qualify as landmark trees (19" and greater). Oak trees are protected by a City Tree Ordinance, while City General Plan Policies encourage the preservation of landmark trees and heritage oaks, as described below in Policy and Regulatory Framework.

Jurisdictional Wetlands and Drainages

U.S. Army Corps of Engineers

Wetlands and permanent and intermittent drainages, creeks, and streams are generally subject to jurisdiction of the ACOE under Section 404 of the federal Clean Water Act. By ACOE definition, all aquatic or riverine habitats between the "ordinary high water mark" of rivers, creeks, and streams, are considered "waters of the U.S." and may fall under ACOE jurisdiction. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by ACOE as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (ACOE 1987). The

⁶ Murray Smith and Associates Engineering, *Lent Ranch Preliminary Arborist Report*, September 1997.

presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site.

The potentially jurisdictional wetlands, streambeds, and drainages on the site were evaluated by Gibson and Skordal Wetland Consultants in May 1998. Although the main drainage ditch contains a small amount of plants and hydrology typically associated with wetlands, the site does not fall under ACOE jurisdiction because the agency does not typically include drainages created in upland habitats.⁷ In addition, Gibson and Skordal analyzed potential impacts to jurisdictional wetlands off site resulting from potential water line improvements related to the project and the detention basin, and found that no jurisdictional wetlands would be affected. Although the ACOE permitting process was greatly revised recently, the definitions of jurisdictional wetlands have not changed. A more complete discussion of the survey methodology can be found in the wetland delineation report in **Appendix 4.8**.

California Department of Fish and Game

Drainages may also be subject to regulation by the CDFG under Sections 1601-1603 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or supported riparian vegetation. CDFG jurisdiction typically extends to the edge of the riparian vegetation canopy. According to Gibson and Skordal, the drainages on site do not fall under CDFG jurisdiction because they have relatively low wildlife habitat values and because the agency typically focuses on drainages receiving natural flows. The drainages on the site receive irrigation-generated flows.

Wildlife Movement Corridors

Wildlife corridors are generally described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human induced factors such as urbanization. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, thus adversely affecting both genetic and species diversity. Corridors somewhat mitigate the adverse effects of fragmentation by: (1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available;

⁷ U.S. Army Corps of Engineers Regulations 33 C.F.R. pt 328.3, 1996.

(2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

Before the development of the Sacramento Valley for agricultural, residential, and industrial uses, it consisted of vast wetlands and riparian forests that provided a rich variety of habitats and food sources for migratory and year-round resident species. Although development has restricted many species to wildlife refuges, undeveloped grazing lands, and riparian corridors, a number of animals, particularly migratory waterfowl and raptors, regularly utilize agricultural lands as temporary stopover sites during migration or during movements between natural open space areas.

The Lent Ranch site is surrounded on the northwest, west, and south by similar farmland. Generally northeast and east of the site are the City of Sacramento and the newly incorporated City of Elk Grove, which mainly consists of residential, commercial, and surrounding industrial areas. Immediately east of the site, SR-99 limits east-west wildlife movement for terrestrial species. The Lent Ranch site is likely used as stopover habitat for migrating birds during certain parts of the year; for example, the horned lark and burrowing owls seen on and near the site may be resident or migrant birds. The main ditch on site may also provide a local escape corridor for small animals during plowing, burning, harvesting and other agricultural activities. However, the site is not likely an essential part of a regional wildlife movement corridor because the site is regularly disturbed and because the surrounding area contains substantial acreage of similar agricultural lands, which would provide equal or better habitat for wildlife movement. In addition, the site only contains remnants of native plant communities, it is not located immediately adjacent to any of the natural habitat areas, and has not been previously documented as supporting any appreciable wildlife use. As a result, the site provides low to moderate values as a wildlife movement corridor.

WILDLIFE HABITAT/ SITE ECOSYSTEM VALUE

The various plant communities, plant and wildlife species, and topographical features (drainages) on the project site ultimately interact as part of the ecosystem of the site and surrounding areas. Each of the plant communities on the site, while independently supporting a number of plant and animal species, together create habitat and contribute to the area's overall ecosystem. The relative value of these habitats can be measured by such factors as:

- disturbance history;
- overall habitat parcel size;
- the surrounding environment;
- biological diversity and abundance;
- importance to particular plant and wildlife species;
- the presence of special-status species; and
- sensitivity status with local, state, and/or federal agencies which reflects the degree to which a habitat is limited or restricted in its distribution.

The following briefly discusses the relative value of on-site habitats with respect to these factors and the overall ecological value of the site.

Disturbance History

As a whole, the Lent Ranch site can be generally described as being greatly disturbed by agricultural practices, but providing moderate wildlife value as open space and foraging habitat. The disturbance history on the site consists of over 50 years of ongoing intensive agricultural uses as well as human and domestic animal disturbance related to the residences on the site.

Surrounding Environment

Much of the landscape surrounding the Lent Ranch site consists of similar agricultural lands. North of the site, the area is urbanizing, although all of the area south of the site remains largely agricultural. Sacramento County generally consists of an urban core near Interstates 50 and 80 that is surrounded by moderate- to high-density residential and commercial areas. Most of the surrounding area is managed for agriculture, although a number of nearby parks, creeks, rivers, and reserves provide riparian habitats. Approximately 1 1/2 miles southeast of the Lent Ranch site are Deer Creek and the Cosumnes River, which provide particularly valuable riparian habitat for a number of common and special-status species. The Cosumnes River Preserve, which is managed by the Nature Conservancy, is situated near this confluence and, along with nearby Howard Ranch, amounts to approximately 35,000 acres of protected habitat. The Stone Lakes National Wildlife Refuge is located near the Sacramento River approximately six miles west of the project site and consists of approximately 1,000 acres.

As described in the discussion of Wildlife Movement Corridors, the Lent Ranch site, like most agricultural land in the area, contributes to stopover habitat for resting and foraging migrating birds.

Although the site is relatively large and contiguous with other agricultural lands, it is a relatively small part of the surrounding, similar, landscape, which in many areas provides higher quality, native habitats than the project site. Nonetheless, the site's proximity to the high quality riparian preserves suggests species using these sites may also periodically visit the Lent Ranch site.

Biological Diversity and Importance to Plant and Wildlife Species

In general, larger areas of natural habitat are more valuable to plant and wildlife species because they support larger, more diverse, and potentially self-sustaining populations and communities. As described above, the Lent Ranch site, while unlikely able to support many viable populations alone due to its disturbed condition, is connected to a patchwork of similar areas throughout the Sacramento Valley. Although the disturbed agricultural fields and residences on the Lent Ranch site are not particularly diverse or important in and of themselves, they do provide foraging habitat for a number of bird species such as raptors and egrets; fallow fields also provide foraging habitat for migrating waterfowl and songbirds. In addition, the main drainage ditch and the basin off site attract a variety of common bird species, including mallard (*Anas platyrhynchos*), northern pintail (*Anas acuta*), northern harrier, green heron (*Butorides virescens*), killdeer (*Charadrius vociferus*), and black phoebe (*Sayornis nigricans*).

Presence of Special-Status Species and Plant Communities

Several special-status wildlife species have been documented or are likely to occur on the site. These include the valley elderberry longhorn beetle, Swainson's hawk, western burrowing owl, loggerhead shrike, and California horned lark. No special-status plant species are expected to occur on the site, nor does the site contain any special-status plant communities.

Conclusions

The site likely provides foraging value for resident and migratory birds and potential breeding habitat for several bird species. Nonetheless, the habitat quality of the site, and hence its biological value, is generally low due to historical and ongoing agricultural-related disturbance and a lack of native plant communities. The value of the Lent Ranch site as a biological resource lies in its contribution to the overall landscape. As part of a mosaic of agricultural areas in the Sacramento Valley, it provides temporary habitat over the course of the year.

POLICY AND REGULATORY FRAMEWORK

City of Elk Grove General Plan

The Conservation Element of the *General Plan* contains a number of policies that are intended to provide for the protection and preservation of natural resources in the county. Policies pertinent to the proposed Lent Ranch project are listed and addressed below under General Plan consistency.

In addition, the *General Plan* strongly encourages the preservation of Landmark trees, which are defined as those trees 19 inches or greater in diameter at four and one-half feet above the ground (commonly referred to as diameter at breast height, or dbh) and in good health. Landmark trees include non-native trees.

Additional Tree Protection Regulations

In addition to the City *General Plan* policies listed above, the City of Elk Grove regulates trees under the Tree Preservation and Protection Ordinance SCC No. 480. Removal of oak trees requires the submission of fees and an application describing the size, health, and location of the trees.

CDFG Guidelines/Swainson's Hawk Ordinance

In 1994, CDFG prepared a Staff Report describing mitigation of impacts to Swainson's hawks, which is a special-status bird species.⁸

Subsequent to preparation of this report, the County of Sacramento worked with staff of CDFG to develop an ordinance that provides a simplified means for individual development projects to mitigate impacts to Swainson's Hawk foraging habitat on a region-wide basis. County Ordinance SCC No. 1093 requires payment of fees per acre of land developed within the Urban Services Boundary. The ordinance is retroactive for specific projects, because it allows payment of fees to mitigate impacts associated with projects that meet the criteria of the ordinance, but were approved and conditioned to mitigate their impacts by other means, prior to the enactment of the Swainson's Hawk Ordinance (assuming mitigation has not already taken place). The fees are earmarked for purchase of suitable habitat for this species by the County and were determined by the CDFG to be suitable mitigation for significant or cumulatively

⁸ California Department of Fish and Game, *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California*, November 8, 1994.

significant impacts to Swainson's hawk foraging habitat if the site is over one mile from active nests. Sites within one mile of known hawk nest sites are not considered adequately mitigated by the payment of fees, and additional mitigation measures are required. These measures typically consist of providing protected habitat management land elsewhere in the region at a ratio of 1 acre per acre developed, if a portion of the land would be managed for agriculture; one half acre per acre developed if all the habitat management land would be managed specifically for hawk habitat; or alternative mitigation of equal or greater protection as approved by the Environmental Services Division of the CDFG.

State and Federal Regulations

Section 2080 of the California Endangered Species Act, and Section 9 of the Federal Endangered Species Act, prohibit the "take" of state- or federally-listed threatened and endangered species or their habitat. In addition, the Migratory Bird Treaty Act and various sections of the California Fish and Game Code prohibit the take of individual birds, active bird nests, or eggs of most common and special-status bird species. Special permits are generally required for the take of any species protected under these regulations.

As previously described, the wetland habitat and drainage ditches on and adjacent to the Lent Ranch site are not subject to ACOE jurisdiction. Similarly, it is expected that Lent Ranch would not fall under CDFG jurisdiction. The Regional Water Quality Control Board (RWQCB) also regulates the discharge of fill into waters of the U.S. in order to ensure that clean water goals are met.

PROJECT IMPACTS

Impact Methodology

Direct impacts of a proposed project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas) which in turn, directly affects plant and wildlife species dependent on that habitat. To determine areas of expected impact on biological resources, the proposed project map was evaluated with respect to biological resources on site and in the surrounding area. All areas within the development grading limits on the project map were assumed to be converted to a developed condition.

The significance of project impacts on biological resources can be difficult to determine, particularly given that the ability of plant and animal species to adapt to such changes will vary. Therefore, the level of significance of potential impacts on habitat areas is determined by an evaluation of the overall biological

value of a habitat area with respect to significance threshold criteria (described below). The relative value of the site is measured by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment, and the presence of special-status resources. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individuals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered of special status by resource agencies. These factors are evaluated based on the results of biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions.

Significance Threshold Criteria

Significant impacts on biological resources resulting from the project were determined from criteria stated in the California Environmental Quality Act (CEQA) *Statutes and Guidelines*. Appendix G (Environmental Checklist) of the *Guidelines* states that a project could have a significant impact on biological resources if it 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 CDFG or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;
- 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.

Section 15065(a) of the CEQA *Guidelines* also states that a project may have a significant effect on the environment when 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; or
- reduce the number or restrict the range of an endangered, rare, or threatened species.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Impacts are sometimes locally important but not significant according to CEQA, because although they would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide, or region-wide, basis.

“Special-status species” refers to the following: any plant or animal species listed by CDFG or USFWS as a threatened or endangered species, proposed for listing as threatened or endangered, or considered as a candidate for listing as threatened or endangered; those species listed by the USFWS as a federal Species of Concern; those species considered by CDFG as a state Species of Special Concern or as a Protected, Fully Protected, or Specially Protected species; and any plants listed by the CNPS as a List 1, 2, 3, or 4 species, or otherwise considered of local concern by the CNPS. Some of the species in these listing categories would also be considered “endangered, rare, or threatened” as defined by Section 15380 of the CEQA *Guidelines*.

Impacts of Proposed Project

The following section focuses on the effects of implementation of the project on plant communities, common and special-status plant and wildlife species, special-status habitats, and wildlife movement corridors located on and in the vicinity of the site. Because most biological resources, particularly plants and wildlife, are dependent upon the condition, extent, and character of specific ecosystems and habitat types, impacts on these resources are generally discussed in terms of the effect of project-related activities on natural habitat areas, i.e., on plant communities. However, direct impacts with respect to specific plant and wildlife resources (e.g., active nests, dens, and individual plants and animals) are also evaluated and discussed when impacts on these resources, in and of themselves, could be considered significant or conflict with local, state and federal laws or regulations.

On-Site and Off-Site Development

Plant Communities

Impact 4.8-1 Project construction will result in the direct conversion of approximately 285 acres of agricultural land onsite and approximately 8 acres offsite for the detention basin that provides suitable foraging habitat for the Swainson's hawk. This is considered a significant impact.

The principal direct impact of implementation of the proposed project is to convert all 294.8 acres of the property from an agricultural and residential condition to a commercially developed condition. The site contains limited habitat values in the form of large trees and native trees, open vegetation, and the periodically wet basin and ditches. Although the existing habitat on the site is greatly disturbed, it provides habitat values for common and special-status species.

As previously stated, the site regularly experiences a high level of disturbance and is dominated by agricultural crop species and non-native grass species; therefore, the site has limited biological value. In addition, the site does not contain special-status plant species. However, because the site is considered suitable foraging habitat for Swainson's hawks and is within 10 miles of at least 13 known nest sites, and because the CDFG regards the loss of suitable foraging habitat within 10 miles of an active nest a substantial adverse effect on breeding birds, the loss of approximately 285 acres onsite and approximately 8 acres offsite of agricultural land is considered a significant impact (approximately 10 acres of the site is already in a developed condition).

Common Wildlife

Impact 4.8-2 Project construction has the potential to result in the direct loss of active bird nests or the abandonment and loss of such nests on and in the vicinity of the project site. This is considered a potentially significant impact.

In addition to the loss of agricultural and grassland vegetation, construction onsite and offsite and operation of the proposed project could potentially directly disturb wildlife on and adjacent to the project site. Most species are expected to be displaced to adjacent areas of similar habitat, provided it is available at the onset of construction activity. However, wildlife that emigrate from the site are vulnerable to mortality by predation and unsuccessful competition for food and territory. In addition, animal species

of low mobility (particularly burrowing mammals, amphibians, and reptiles) could be destroyed during site preparation and construction.

Because of the relatively common nature and low number of the wildlife species that would be displaced or inadvertently destroyed by construction activities, project implementation is not expected to reduce current populations to below self-sustaining levels or otherwise substantially affect common wildlife species populations in the immediate area. Therefore, no significant impacts to common wildlife species would occur.

However, a number of bird species, particularly migratory waterfowl and songbirds, could be adversely affected as a result of construction or other site-preparation activities. Such activities could result in the direct loss of active nests or the abandonment and subsequent loss of active nests by adult birds. Bird nests with eggs or young are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss of active bird nests would be a potentially significant impact.

Special-Status Resources

The following describes the project impacts on special-status resources, including special-status plant and wildlife species, special-status plant communities, jurisdictional wetlands, and wildlife movement corridors.

Special-Status Plants

Because no special-status plant species have been identified or are expected to occur on the Lent Ranch site or in the vicinity of the project site, project implementation would not result in a significant impact to any plant resources.

Special-Status Wildlife

The potential direct impacts on special-status wildlife species occurring, or potentially occurring on the project site are discussed below in terms of the actual loss of active nests, dens, and individual animals.

Invertebrates

Impact 4.8-3 Construction of off-site stormwater drainage infrastructure may disturb or require removal of elderberry shrubs that provide suitable breeding and foraging habitat for

the valley elderberry longhorn beetle. This is considered a potentially significant impact.

Miriam Greene and Associates and Impact Sciences biologists examined the elderberry shrubs west of the site that could be affected by proposed stormwater drainage improvements, and found that three stems were large enough to provide suitable habitat for **valley elderberry longhorn beetles**. The special-status species assessment determined that the stems did not have exit holes, suggesting that the beetle is not present on the site. Because these shrubs provide suitable breeding and foraging habitat, the loss of these shrubs as a result of construction activities and drainage improvements for the project would constitute a significant impact.

Amphibians and Reptiles

Impact 4.8-4 Construction activity may result in the direct loss of an individual Giant garter snake observed on-site. This is considered a potentially significant impact.

As previously stated, the site does not provide suitable habitat for Giant garter snake. However, because a single individual snake was observed on-site, project construction activities could result in a loss of individual snakes. The loss of individual Giant garter snakes would be considered a significant impact.

Birds

Impact 4.8-5 Construction activity has the potential to disrupt breeding and nesting activity of sensitive bird species known to occur in the project area. This is considered a potentially significant impact.

Although the Lent Ranch site provides suitable foraging habitat for **tricolored blackbirds, northern harriers, and loggerhead shrikes**, no suitable nesting habitat is present on or adjacent to the site; therefore, project implementation is not expected to result in any significant impacts on these species.

California horned lark, white-tailed kites, and burrowing owls have been observed on or near the site and suitable nesting habitat occurs on site for these species. Although no active nests were located during site surveys, should these species nest on the project site prior to project implementation, construction or site preparation activities could result in the direct loss of nests, eggs, or young, or abandonment of the nest by the adults. In addition, burrowing owls may occupy burrows outside of the nesting season (February 1 through August 31), and roosting birds could be destroyed during construction activities.

Depending on the number and extent of nests of these species on the site that may be disturbed or removed, the loss of active nests or burrows would be a potentially significant impact. The burrowing owl observed west of the site, on the banks of the main drainage ditch, may also be adversely affected by the proposed drainage improvements. Construction activities during the breeding season could result in the direct loss of nests, eggs, or young, or abandonment of the nest by the adults of these species, which would be considered a potentially significant impact.

Swainson's hawks have not been documented on the Lent Ranch site but the nearest nest site was documented approximately 1 1/4 mile southeast of the site, near the Cosumnes River. In addition, at least 13 other known nest sites are located within 10 miles of the Lent Ranch site. Although this species typically favors riparian areas with large, dense trees for nest sites, it regularly forages in surrounding agricultural areas. Because of the proximity of the site to known nesting sites and the presence of suitable nesting habitat, Swainson's hawks may nest on the site. Construction activities during the breeding season could result in the direct loss of nests, eggs, or young, or abandonment of the nest by the adults, which would be considered a potentially significant impact. The loss of foraging habitat was previously addressed in the discussion of affects to plant communities.

Jurisdictional Resources

The survey conducted by Gibson and Skordal concluded that the drainages on the project site and the adjacent basin site would not fall under ACOE or CDFG jurisdiction. Because the site does not contain jurisdictional wetlands, no areas under ACOE or CDFG jurisdiction would be affected.

Native Trees

Impact 4.8-6 Project development would result in the loss of native and landmark-sized trees, which is in conflict with the City's Tree Ordinance. This is considered a potentially significant impact.

It is expected that all 14 of the native oaks, 56 landmark-sized trees, and 89 other non-native trees would be removed. Any trees remaining on the site could be subject to potential impacts from the following: disturbance to trees from grading and construction activities that may affect the branches, trunk, or roots directly from mechanical damage, and indirectly due to alterations in soil structure, drainage, microbiology, etc.

From a habitat perspective, the regular disturbance, wide spacing, and limited understory vegetation of the existing trees on the project site provide limited foraging habitat and cover for wildlife. Therefore, the loss of these trees would not significantly affect existing habitat values. Removal of oak trees greater than 6" in diameter at breast height would conflict with the City's Tree Ordinance and General Plan Policies. Consequently, the loss of oak trees is considered a potentially significant impact. The loss of oak trees regulated by these policies would require a tree removal permit from the City, as well as replacement according to a City-mandated ratio. Impacts to landmark trees are also discussed in **Section 4.11, Visual Quality**.

Wildlife Movement Corridors

The Lent Ranch Marketplace project site is not expected to serve as an essential component of a regional terrestrial movement corridor for any species, situated as it is alongside similar agricultural lands with similar wildlife habitat values in the Sacramento Valley. Although use of the site by migrating birds would be limited after project implementation, based on the limited habitat value of the site, the actual migration would not be significantly affected. Because development on the site would not affect any known regionally important movement corridors for terrestrial wildlife, impacts on terrestrial wildlife movement would be less than significant.

Indirect Impacts

Indirect impacts on biological resources would occur to those habitat areas surrounding the development envelope, as well as to remaining habitat areas within the proposed development area, after the completion of the proposed project. It is expected that implementation of the proposed project could result in indirect impacts to biological resources in the following ways:

- an increased human presence in the area and noise associated with this presence;
- an increase in populations of non-native plant species;
- an increase in stormwater runoff and degradation of water quality; and
- an increase in light and glare.

Indirect impacts associated with the proposed project are not quantifiable, but are reasonably foreseeable. As such, the discussion that follows provides a common-sense identification of the types of secondary impacts and their relative magnitude such that decision makers and the general public are aware of the indirect impact potential associated with implementation of the project.

Increased Human Presence

The general area contains some development, particularly to the north and east of State Route 99. Implementation of the Lent Ranch project would increase human presence in the area west of State Route 99. The most substantial effects include increased automobile trips, which would increase the potential for vehicle-wildlife collisions. In general, wildlife using the adjacent agricultural areas are already subject to ongoing human and habitat disturbance resulting from farming activities. Because the wildlife in the surrounding area are already likely adapted to high levels of disturbance, increased human presence in the form of automobiles and commercial use of the site is expected to be less than significant.

Increase in Populations of Non-Native Plants

After project completion, a number of non-native plant species that are more adapted to urban environments are expected to increase in population within the immediate area. Ornamental and non-native plants used in landscaping and gardens can disperse seeds into surrounding areas and, because of the ability of some of these species to more readily adapt to varying soil and weather conditions, displace native plant populations.

It is difficult to anticipate the level of potential impact of non-native species populations; the level of impact is more directly related to the reproductive success and population distribution of these species, and not necessarily to the number of people and urban structures. Currently, the majority of plants on the site are non-native and are not invasive, particularly the regularly harvested crops. Similarly, ornamental landscaping is presently found in the development located east of State Route 99. In addition, the adjacent agricultural areas are similarly non-native and regularly harvested. The level of use of non-native plants and the potential for these plants to escape into the surrounding area is not expected to increase; therefore, increases in populations of non-native plants resulting from project implementation is expected to be less than significant.

Stormwater Runoff

Construction activity could increase sedimentation in local waterways due to wind and water driven erosion of soil. Compliance with the City's Land Grading and Erosion Control Ordinance as well as use of Best Management Practices outlined in the Storm Water Pollution Prevention Plan required by the NPDES program (refer to **Section 4.7, Hydrology and Water Quality, Mitigation Measure MM4.7-1**) would minimize biological impacts associated with short term sedimentation both on and offsite to a less than significant.

As discussed in **Section 4.7, Hydrology and Water Quality**, the project would increase the area of impervious surfaces and result in an increase in stormwater runoff. The following discussion addresses the potential impacts of stormwater runoff on biological resources.

Paved surfaces would increase the quantity of runoff entering the large off-site, agricultural ditch system during storm events. Urban runoff contains almost every type of water pollutant, including suspended solids, bacteria, heavy metals, oxygen-demanding substances, nutrients, and oil and grease. Primary sources of urban runoff pollutants include animal droppings, atmospheric fallout, land erosion, lawn runoff (pesticides, herbicides, fertilizers), and parking lot runoff.⁹ Depending on the magnitude and frequency of storm events and the overall water quality, this runoff can cause increased eutrophication, depleted oxygen levels, long-term build-up of toxic compounds and heavy metals, and other adverse effects to biological resources associated with the ditch system.

The project is subject to the requirements of the National Pollutant Discharge Elimination System during both construction and operation. As part of this permit process, the applicant is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) containing design features and best management practices (BMPs) appropriate and applicable to the project. The SWPPP would address material storage and handling procedures, equipment operation, storage, maintenance, and repair procedures, construction site cleanliness, and erosion control measures (refer to **Section 4.7, Hydrology and Water Quality**, Mitigation Measure **MM4.7-3**). Through the NPDES program, any commercial use that locates on the site and which may utilize or generate hazardous substances would require permits and be subject to enforcement requiring them to provide primary and secondary containment of such substances to prevent their release into ground or surface water bodies. Finally, the project is subject to the City Land Grading and Erosion Control Ordinance. Implementation of these project design measures would reduce stormwater runoff impacts to a less-than-significant level.

Increased Light and Glare

Impact 4.8-7 **Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and invertebrates. This would result in a significant impact.**

⁹ Robert A. Corbitt, *Standard Handbook of Environmental Engineering*, (New York City: McGraw-Hill Publishing Company, 1989), p. 753.

Nighttime illumination is known to adversely affect animals in natural and open areas. Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and invertebrates. Increased nighttime illumination can also confuse migrating birds, particularly during typically foggy spring weather. If uncontrolled, such light, where proximal to remaining open areas, such as those south of the site, could adversely impact the animal species composition that occurs in these areas.

Commercial development of the site would increase the number of nighttime light and glare sources on the site over current levels, which are currently limited to the residences in the eastern part of the site. Because lighting and glare are expected to substantially increase and because the lighting would potentially result in unnecessary illumination outside of developed areas, impacts to biological resources associated with increased lighting and glare would be considered potentially significant.

MITIGATION MEASURES

Measures Recommended by the EIR

Common and Special-Status Birds

MM4.8-1(a) Prior to improvement plan approval or building permit issuance, whichever comes first, implement one of the following alternatives to mitigate for the loss of 293 acres of Swainson's hawk foraging habitat:

- Preserve 293 acres (1 acre for each lost) of similar habitat within a 10-mile radius of the project site to be protected through fee title or conservation easement acceptable to the California Department of Fish and Game
- Prepare and implement a Swainson's Hawk Mitigation Plan to the satisfaction of the California Department of Fish and Game that includes preservation of Swainson's hawk foraging habitat.
- Submit a payment of a Swainson's hawk impact mitigation fee per acre impacted to the Department of Planning and Community Development in the amount as set forth in Chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent said Chapter remains in effect.

Timing/Implementation: Prior to improvement plan approval.

Enforcement/Monitoring City of Elk Grove Planning Department and CDFG.

MM4.8-1(b) In accordance with CDFG mitigation guidelines for Swainson's hawks, if active Swainson's hawk nests are found within 1/2 mile of the construction site, clearing and construction shall be postponed or halted, at the discretion of the biological monitor, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. If a nest tree is found on the project site prior to construction and will be removed, then appropriate permits from CDFG shall be obtained pursuant to CDFG guidelines.¹⁰

Timing/Implementation: **Prior to and during construction activities.**

Enforcement/Monitoring **City of Elk Grove Planning Department and CDFG**

MM4.8-2(a)

MM4.8-5(a) No earlier than 45 days and no later than 20 days prior to the commencement of any construction that would occur during the nesting/breeding season (February 1 through September 1), a field survey shall be conducted by a qualified biologist to determine if active nests of special-status birds such as **white-tailed kite, California horned lark, burrowing owl, Swainson's hawk**, or common bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code occur on the site. These surveys shall include all areas in or within 250 feet of the construction zone, including the extent of the directly affected portion of the drainage ditch. In addition, nesting surveys for Swainson's hawks shall include all areas in or within 1 mile of the construction site in order to ascertain the specific long-term mitigation replacement ratios for loss of foraging habitat discussed below under mitigation measure 4.8-9.

Timing/Implementation: **No earlier than 45 days and no later than 20 days prior to grading.**

Enforcement/Monitoring **City of Elk Grove Planning Department and CDFG.**

MM4.8-2(b)

MM4.8-5(b) Within 30 days prior to any construction activities outside of the breeding season (September 1 through January 31), a qualified biologist shall conduct a burrow survey to determine if burrowing owls are residing on the site, in order to ensure no owls are inadvertently buried during construction. If owls are observed on the site prior to

¹⁰ California Department of Fish and Game, *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California*, November 8, 1994.

ground-disturbance activities, measures such as flagging the burrow and avoiding disturbance, passive relocation, or active relocation to move owls from the site, as determined by a qualified biologist and as approved by the CDFG, shall be implemented. In addition, a qualified biologist shall monitor initial grading to ensure that no owls are harmed during the process.

All surveys for burrowing owls shall be conducted according to CDFG protocol.¹¹ This protocol requires, at a minimum, four field surveys of the entire site and areas within 500 feet of the site by walking transects close enough that the entire site is visible. The surveys should be at least three hours long, either from one hour before sunrise to two hours after or two hours before sunset to one hour after. Surveys shall not be conducted during inclement weather, when owls are typically less active and visible.

Timing/Implementation: **Thirty days prior to construction activities occurring between September 1 through January 31.**

Enforcement/Monitoring **City of Elk Grove Planning Department and CDFG**

MM4.8-2(c)

MM4.8-5(c) Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, if active songbird nests or active owl burrows are found within the survey area, clearing and construction within a minimum of 250 feet for owls and 100 feet for songbirds, or as determined by a qualified biologist to ensure disturbance to the nest will be minimized shall be postponed or halted. Construction will not resume within the buffer until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. The perimeter of the protected area shall be indicated by bright orange temporary fencing. No construction activities or personnel shall enter the protected area, except with approval of the biologist.

Timing/Implementation: **During project grading and construction.**

Enforcement/Monitoring **City of Elk Grove Planning Department and CDFG**

Implementation of the above measures would ensure that no active nests are disturbed and no individual hawks, owls, or other special-status bird species are lost as a result of construction activities and lost

¹¹ California Department of Fish and Game, *Staff Report on Burrowing Owl Mitigation*, 1995.

foraging habitat for Swainson's hawks is mitigated; thus potentially significant impacts to these species would be reduced to less-than-significant levels.

Valley Elderberry Longhorn Beetles

The project applicant shall implement the following measure to reduce potential impacts to the beetle to a less-than-significant level.

MM4.8-3 If the existing stand of elderberry must be removed, prior to approval of grading permits, the project applicant shall undertake consultation with the USFWS pursuant to Section 10(a) of the Federal Endangered Species Act for an incidental take permit for removing the existing elderberry stand. Under this permit, the USFWS may allow transplantation of all elderberry plants with a stem diameter of one inch or greater while monitored by a qualified biologist and using USFWS-approved timing and procedures to reduce loss of plants or beetles. Prior to transplantation, a site shall be selected in consultation with the USFWS for protection in perpetuity and based on connectivity to other suitable beetle habitat areas.

Additional elderberry plants shall be planted in the mitigation area at ratios of 2:1 to 5:1, depending on the quality of the beetle habitat being removed.¹² For plants with stem diameters one inch or greater with no emergence holes, the ratio is 2:1. If beetles are present as evidenced by emergence holes in 50 percent or less of the shrubs one inch or more in diameter, the ratio is 3:1. If emergence holes are present in over 50 percent of the shrubs one inch or more in diameter, then the ratio of replacement shrubs is 5:1. Because the number of the shrubs to be planted is dependent on the presence or absence of beetle exit holes, the stems larger than 1 inch in diameter would need to be reexamined prior to removal.

Timing/Implementation: **Prior to issuance of Grading Permits.**

Enforcement/Monitoring ***U.S. Fish and Wildlife Service and City of Elk Grove Planning Department.***

¹² U.S. Fish and Wildlife Service, *General Compensation Guidelines for the Valley Elderberry Longhorn Beetle*, July 9, 1999.

Giant Garter Snake

Measures to minimize direct or indirect harm or loss of individual giant garter snakes that may inadvertently occur on the project site during grading and construction activities include the following. Most of these measures are consistent with those required by the USFWS as documented in the Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California, prepared by the USFWS (File No. 1-1-F-97-149).

MM4.8-4(a) Prior to grading or other site preparation activities, the applicant shall install temporary fabric fencing, a minimum of 3 feet in height, along the western edge of the property to prevent giant garter snakes from entering construction areas. The fencing will need to be regularly inspected and maintained. Exclusion fencing must remain in place and be maintained for the duration of the construction activities in order to prevent snakes from entering construction areas.

Timing/Implementation: **Prior to issuance of grading permits.**

Enforcement/Monitoring **City of Elk Grove Planning Department**

MM4.8-4(b) Construction activities, particularly within the western portion of the site, should be conducted as much as is feasible within the active period of the snake (generally from May 1 to October 1). Direct impacts are lessened during this time because snakes are actively moving and avoiding danger. More danger is posed to snakes during their inactive period, because they are occupying underground burrows or crevices and are more susceptible to direct effects, especially during excavation.

Timing/Implementation: **Prior to project grading and during construction.**

Enforcement/Monitoring **City of Elk Grove Planning Department.**

MM4.8-4(c) Any dewatered habitat must remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.

Timing/Implementation: **During construction activities.**

Enforcement/Monitoring **City of Elk Grove Planning Department.**

MM4.8-4(d) Construction personnel shall participate in a Service-approved worker environmental awareness program. Under this program, workers shall be informed about the presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about: (1) the life history of the giant garter snake; (2) the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas, such as rice fields, to the giant garter snake; and (3) the terms and conditions of the biological opinion. Proof of this instruction shall be submitted to the Sacramento U.S. Fish and Wildlife Office.

Timing/Implementation: **Prior to project grading and construction.**

Enforcement/Monitoring **U.S. Fish and Wildlife Service and City of Elk Grove Planning Department.**

MM4.8-4(e) Within 24-hours prior to commencement of construction activities, the site shall be inspected by a qualified biologist who is approved by the Service's Sacramento Fish and Wildlife Office. The biologist will provide the Service with a field report form documenting the monitoring efforts within 24-hours of commencement of construction activities. The monitoring biologist needs to be available thereafter; if a snake is encountered during construction activities, the monitoring biologist shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away from construction activities on their own. Capture and relocation of trapped or injured individuals can only be attempted by personnel or individuals with current Service recovery permits pursuant to Section 10(a)1(A) of the Act. The biologist shall be required to report any incidental take to the Service immediately by telephone at (916) 979-2725 and by written letter addressed to the Chief, Endangered Species Division, within one working day. The project area shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred.

Timing/Implementation: **Within 24 hours prior to project grading and construction.**

Enforcement/Monitoring **U.S. Fish and Wildlife Service and City of Elk Grove Planning Department.**

Native Trees

MM4.8-6(a) Valley oaks that meet the criteria contained in the City's Tree Preservation Ordinance will be avoided by construction and protected during all construction activity, if feasible.

To protect oak trees, the following measures will be implemented:

- a. Before initiating any construction activity near the protected oak trees, install chain-link fencing or a similar protective barrier at least one foot outside the dripline of each tree or as far as possible from the tree trunk where the existing road is within the tree dripline. The barrier fencing will remain in place for the duration of construction activity.
- b. Any required pruning of oak trees shall be conducted before construction activity begins. Oak trees that require pruning of branches larger than two inches in diameter shall be pruned by a certified arborist. No pruning of the six-foot-diameter tree will be permitted.
- c. No signs, ropes, cables (except cables that may be installed by a certified arborist or other professional tree expert), or other items shall be attached to the oak trees.
- d. No vehicles, construction equipment, mobile home/office, supplies, materials, or facilities shall be driven, parked, stockpiled, or located within the driplines of oak trees.
- e. No grading shall be allowed within the driplines of oak trees, except where paved roadway already exists. Removal of pavement within the driplines of oak trees shall be conducted in the presence of a certified arborist to ensure that damage and stress to any oak tree is minimized.
- f. Conduct any work necessary within the dripline by hand.
- g. Paving within the driplines of oak trees shall be stringently minimized. When paving is absolutely necessary, porous material shall be used or a piped aeration system shall be installed under the supervision of a certified arborist.
- h. Landscaping beneath oak trees may include non-plant materials such as boulders, cobbles, and wood chips. The only plant species that shall be planted within the driplines of oak trees are those that are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.
- i. No sprinkler system shall be installed in such a manner that it irrigates within the driplines of oak trees.

Timing/Implementation: Prior to and during construction activities.

Enforcement/Monitoring CDFG and City of Elk Grove Planning Department.

MM4.8-6(b) For any oak trees with a diameter of six inches or more measured at 4.5 feet above grade that are removed due to project construction, a tree mitigation plan shall be submitted to the City of Elk Grove in accordance with City requirements. Pursuant to City Tree

Ordinance, the number of oak trees to be replanted will be determined based on the number of inches of oak trees to be removed. Mitigation areas, if needed, shall be within the project area limits. The plan shall include the following components:

- a. number, location and species of the replacement trees to be planted,
- b. methods of irrigation for planted trees,
- c. planting and maintenance schedule, and
- d. plan for care of planted trees for a three-year establishment period and replacement of any planted trees that do not survive.

Timing/Implementation: **Prior to issuance of grading permits.**

Enforcement/Monitoring **Tree mitigation plan to be submitted by the applicant to the City of Elk Grove Planning Department.**

Indirect Impacts

Increased Light and Glare

MM4.8-7 All lighting along the perimeter of the site shall be downcast luminaries and shall be shielded and oriented in a manner that will prevent spillage or glare into the surrounding area.

Timing/Implementation: **Prior to improvement plan approval.**

Enforcement/Monitoring **City of Elk Grove Planning Department.**

CONSISTENCY WITH GENERAL PLAN POLICIES

Table 4.8-3 identifies the General Plan Conservation, and Open Space Element policies that are directly applicable to the proposed project, and presents an evaluation of the consistency of the project with these statements. The final authority for interpretation of these policy statements, and determination of the project's consistency rests with the City Council.

**Table 4.8-3
General Plan Conservation and Open Space Element Policy Consistency**

General Plan Policies	Consistency with General Plan	Analysis
<p>Policy CO-62: Ensure no net loss of marsh and riparian woodland acreage, values or functions.</p>	Not Applicable	The project site does not contain any marsh or riparian woodland acreage.
<p>Policy CO-108: Natural appearance channels will be encouraged for watercourses in newly developing areas (outside of identified in-fill areas).</p>	Not Applicable	This Policy appears under Section V, Urban Streams. There are no urban streams or watercourses on the project site; there are only drainage ditches.
<p>Policy CO-130: Make every effort to protect and preserve non-oak native, excluding cottonwoods, and landmark trees and protect and preserve native oak trees measuring 6 inches in diameter at 4.5 feet above ground in urban and rural areas, excluding parcels zoned exclusively for agriculture.</p>	Yes	There are 159 trees on the project site consisting of mostly ornamental species. Of the 159 trees, 14 are native oaks. Although every effort would be made to preserve oak trees, the project would be required to comply with the requirements of the City Oak Tree Ordinance with respect to any oak trees removed and would mitigate any potential impacts by planting replacement trees consistent with City requirements.
<p>Policy CO-131: Native trees other than oaks, which cannot be protected shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed. In addition, with respect to oaks, a provision for a comparable on-site area for the propagation of oak trees may substitute for replacement tree planting requirements at the discretion of the County Tree Coordinator when removal of a mature oak tree is necessary in accordance with consistent policy.</p>	Not Applicable	The General Plan states (Conservation Element, page 83) that Policy CO-131 should apply only to non-discretionary projects. Policy CO-133 applies to discretionary projects.
<p>Policy CO-132: If the project site is not capable of supporting all the required replacement trees a sum equivalent to the replacement cost of the number of trees that cannot be accommodated shall be paid to the County's Tree Preservation Fund. The replacement cost of trees shall be established in accordance with the Council of Tree and Landscape Appraiser's standards for appraising trees.</p>	Yes	It is anticipated that the project site would be able to accommodate any replacement trees required pursuant to the City's Oak Tree Ordinance, and any replacement trees would be planted consistent with City requirements.

General Plan Policies	Consistency with General Plan	Analysis
<p>Policy CO-133: For discretionary projects involving native oaks, ensure no net loss of canopy area by (1) preserving the main, central portions of consolidated and isolated groves constituting the existing healthy and unhealthy native oak canopy <u>and</u> (2) provide an area on-site to mitigate any canopy lost. Native oak mitigation area must be a contiguous area on-site which is equal to the size of canopy area lost and shall be adjacent to existing oak canopy to ensure opportunities for regeneration. If on-site mitigation area is not available due to area limitations, developer shall provide off-site mitigation consistent with policy proposed in CO-136.</p>	Yes	The project would comply with the requirements of the City Oak Tree Ordinance with respect to any oak trees removed and would mitigate any potential impacts by planting replacement trees consistent with City requirements. In addition, there are no “oak groves” on the project site.
<p>Policy OS-1 Permanently protect, as open space, areas of natural resource value, including wetlands preserves, riparian corridors, woodlands, and floodplains.</p>	Yes	The project site does not contain such areas of natural resource value as wetlands, riparian corridors, woodlands or floodplains. However, the project site has been identified as potential foraging habitat for several common and special-status species, including the Swainson’s Hawk. The project would mitigate potential impacts to the Swainson’s Hawk and other special-status species through the implementation of the mitigation measures identified in this EIR. See Section 4.8, Biological Resources.
<p>Policy OS-2 Maintain open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement and sustain ecosystems.</p>	Yes	See analysis of Policy OS-1, above.
<p>Policy OS-7 The City shall adopt a comprehensive Open Space Preservation Action Plan.</p>	Yes	Adoption of an Open Space Preservation Action Plan is the responsibility of the City, either independently of or in conjunction with other local jurisdictions. However, the project would implement the mitigation measures identified in this EIR, which would, among other things, preserve open space habitat or contribute to its preservation. See analysis of Policy OS-1, above.

CUMULATIVE IMPACTS

Impact 4.8-8 Cumulative development in the southern Sacramento County area would result in the loss of a number of other agricultural areas and the connectivity they provide between preserved open space areas and as temporary resting and foraging sites for migrating birds. The loss of an additional 293 acres of habitat as a result of the Lent Ranch project would significantly contribute to the ongoing conversion of wildlife habitat in

the Southern Sacramento County area to a developed condition. When viewed in terms of the overall value of this habitat to both common and special-status wildlife species, this additional loss of wildlife habitat is substantial and therefore, considered a significant cumulative impact. Finally, continued development in the area also cumulatively contributes to the increased nighttime light and glare, which can disturb breeding and foraging behavior of birds, mammals, and invertebrates. This would result in a significant cumulative impact.

A number of development projects are currently under way or proposed for locations in southern Sacramento County. Buildout of approved and planned uses such as the East Franklin Specific Plan, Laguna Ridge Specific Plan area, South Point planning area, and associated infrastructure such as the Grant Line interchange improvements has the potential to cumulatively affect biological resources in the area, including reducing the amount of available habitat, eliminating sensitive species, and constricting wildlife movement. This section discusses the cumulative impacts of the Lent Ranch project on biological resources with respect to the overall development trends in the area.

The Lent Ranch project site, although largely agricultural, provides habitat for a variety of common wildlife species and even some special-status species. When viewed individually, the loss of the project site does not represent a substantial loss of wildlife habitat. However, the implementation of anticipated cumulative development in the southern Sacramento County area would result in the loss of a number of other agricultural areas and the connectivity they provide between preserved open space areas and as temporary resting and foraging sites for migrating birds. The loss of an additional 293 acres of habitat as a result of the Lent Ranch project would significantly contribute to the ongoing conversion of wildlife habitat in the Southern Sacramento County area to a developed condition. When viewed in terms of the overall value of this habitat to both common and special-status wildlife species, this additional loss of wildlife habitat is substantial and therefore, considered a significant cumulative impact. Finally, continued development in the area also cumulatively contributes to the increased nighttime light and glare, which can disturb breeding and foraging behavior of birds, mammals, and invertebrates. This is considered a cumulatively significant impact.

CUMULATIVE MITIGATION MEASURES

Wildlife Habitat

The implementation of mitigation measures for the loss of Valley elderberry beetle habitat and Swainson's hawk foraging habitat would preserve and manage suitable foraging habitat for these species

off site, which, according to the USFWS programmatic consultation and Swainson's hawk ordinance were determined by the City, Sacramento County, USFWS and CDFG to be suitable mitigation both for project and cumulative impacts to loss of habitat. Therefore, after mitigation, the loss to these species would be less-than-significant.

Because the habitat that would be managed on behalf of the Valley elderberry beetle and Swainson's hawks would provide high quality riparian habitats or agricultural lands with reduced disturbance, they would be expected to reduce the cumulative impact to many common and special-status species which potentially inhabit or forage on the site to a less than significant level.

UNAVOIDABLE SIGNIFICANT IMPACTS

Implementation of the measures described above would reduce the potential direct project-specific impacts on valley elderberry longhorn beetles, giant garter snakes, common and special-status bird nests, and native trees to a less-than-significant level. Indirect impacts on biological resources resulting from increases in stormwater runoff and light and glare would also be reduced to a less than significant level. The conversion of 293 acres of agricultural land to urban use was not considered a significant impact given the disturbed nature of the property.

On a cumulative basis, each future off-site development project is subject to its own environmental review. Assuming each future project complies with the County Swainson's hawk ordinance and CDFG protocols, then cumulative impacts to foraging habitat for the hawk are mitigated to below a level of significance. Consequently, no cumulatively significant long-term impact to the Swainson's hawk are anticipated. Participation in this program also provides high quality habitat that is expected to reduce impacts to other wildlife species that could be affected by cumulative development.

All cumulative projects must also comply with USFWS mitigation designed to protect elderberry longhorn beetles and giant garter snakes, or undertake consultation with USFWS for an incidental take permit to remove a elderberry plant, since this plant is habitat for the beetle. Compliance with either the USFWS mitigation guidelines or the conditions of the incidental take permit issued pursuant to a Section 10 consultation are considered to adequately mitigate project specific and cumulative impacts to the elderberry longhorn beetle and the giant garter snake.

With regard to habitat for common wildlife, implementation of anticipated cumulative development in the southern Sacramento County area would result in the conversion of a number of agricultural areas to urban use, which would remove the connectivity they provide between preserved open space areas and

as temporary resting and foraging sites for migrating birds. This loss is considered an unavoidable significant cumulative impact and was recognized as such in the Final EIR for the General Plan. Statement of Overriding Considerations have been made as part of the General Plan update EIR for outlining the economic, social, and other benefits associated with this conversion.

With respect to indirect impacts, each project is required to participate in the NPDES permit program for stormwater runoff, which effectively reduces water quality impacts to below a level of significance.

Finally, planned urbanization of the project area would create new sources of light and glare. While project specific measures can be undertaken to orient or shield lights to minimize illumination of adjacent lands, the combined effect of all new developments approved or planned in the area would create an unavoidable significant cumulative light and glare impact.