4.8 VEGETATION AND WILDLIFE

4.8.1 INTRODUCTION

This chapter describes the effects that the proposed project could have on vegetation, wildlife, and wetland resources in the region. All data provided in this section was obtained from field visits of the SVSP and Urban Reserve area in April 2007 and during the 2005/2006 and 2006/2007 wet season surveys a, aerial photographs and from review of the following documents:

- City of Roseville *General Plan* (2004), and as amended through August 2009
- City of Roseville *Zoning Ordinance* as amended (1997)
- *Placer County General Plan* (1992, as amended)
- *Sierra Vista Specific Plan* (2009)
- North Fork Associates, *Biological Resources Assessment for the Sierra Vista Specific Plan Project*, June 9, 2009.
- *Comprehensive Clean Water Act Section 404 Application for Sierra Vista* (September 2006)
- *Arborist Survey Report* (2009) ECORP
- *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (December 15, 2005)
- *California Natural Diversity Database (CNDD)*
- *West Roseville Specific Plan FEIR,* February 2009

The documents listed above are available for review during normal business hours at:

City of Roseville Permit Center

311 Vernon Street

Roseville, CA 95678

During circulation of the Notice of Preparation (NOP), the City received comments from the Sierra Club regarding impacts to vernal pools and associated uplands, aligning CEQA mitigation with federal permits, and consistency of mitigation with the City's MOU with the USFWS. In addition, comments were received from the Sierra Club regarding mitigation ratios consistent with the Vernal Pool Recovery Plan. Placer County requested that information be included for roadways that extend into the Placer County/Curry Creek area to ensure that there are no fatal flaws relative to biological resources if Road B were to extend westward. Nearby residents wrote that they were

concerned about the impact to salmon habitat as a result of construction water runoff. They noted a beaver dam a quarter mile west of Fiddyment Road.

Refer to Appendix B of this EIR to view the comments received on the project during circulation of the NOP.

4.8.2 ENVIRONMENTAL SETTING

The project area is located in the eastern Central Valley at elevations of approximately 75- to 110-feet. The project area supports non-native annual grassland, with flat to gently rolling topography. Although most of the project area is currently uncultivated, there is evidence of former wheat cultivation and pastureland. Evidence of recent disking is exhibited throughout the project area. Three former farmstead residences are located in the western portion of the project area, and contain ornamental trees (e.g. eucalyptus) and other features such as stock ponds. No other developed features exist on the landscape except for the transmission line corridor that passes through the center of the project area, dirt ranch roads, and fences.

Wetlands and other waters are embedded within the annual grassland. Curry Creek flows from east to west through the southern portion of the project area, and supports scattered riparian and emergent vegetation. Two intermittent tributaries, vernal pools and seasonal wetland swales, and other seasonal wetlands occur throughout the project area. The predominant plant communities are annual grassland, and agricultural land.

Hydrology

The SVSP area is in the Lower Sacramento River Watershed. The main hydrologic feature within the project area is Curry Creek, a perennial drainage that meanders east to west across the southern portion of the project area. Curry Creek is a tributary to the East Main Drain Canal, which ultimately drains into the Sacramento River. A tributary to Curry Creek (Federico Creek) meanders through the central portion of the project area. The project area also supports seasonal wetland swales, vernal pools, and other seasonal wetlands that are saturated and/or inundated during the rainy season.

Biological Communities

Four general biological communities were observed within the Project area during field visits including non-native annual grassland, stream complex, rural mix landscape, and agriculture (strawberry stand).

Figure 4.8-1 shows the locations of on-site biological communities.

Annual Grasslands

Most of the project area supports disturbed, non-native annual grassland that has been managed in different ways. Although most of the project area is currently fallow, there is evidence of former wheat cultivation, regular disking, and pasture land. Most of the project area has been disked over the years. During the April 2007 field surveys, the area was dominated by wheat. Large patches of bare ground and ruderal vegetation such as vetch, turkey mullein, common knotweed, and bindweed occur throughout the project area. The western portions of the project area appear to have been historically heavily grazed; however, during the field surveys no cattle were observed on any portion of the Project area. The areas along the southern Project area boundary appeared to be recently and regularly disked. All of the fallow areas appear to be dominated by non-native grass species such as medusa-head grass, soft chess, ripgut grass, and slender wild oats. Other common non-native herbaceous species include yellow star-thistle, vetch, filaree, Fitch's spikeweed, and virgate tarweed. Native species present include: common fiddleneck, rusty popcornflower, ookow, white brodiaea, and Ithruriel's spear.

Non-native annual grassland habitats generally occupy what was once native grassland consisting primarily of perennial bunch grasses. Prior to its conversion to agricultural production by settlers, the Great Valley supported a diversity of habitats made up of vast grasslands, valley oak savannahs, riparian woodlands, and marshes.

Stream Complex

Curry Creek is a perennial drainage that contained flowing and standing water at the time of the field surveys. Curry Creek was historically an intermittent stream that has been converted to more of a perennial condition through the addition of irrigation runoff from upstream development. Certain reaches of Curry Creek are associated with riparian

FIGURE 4.8-1

ONSITE BIOLOGICAL COMMUNITIES

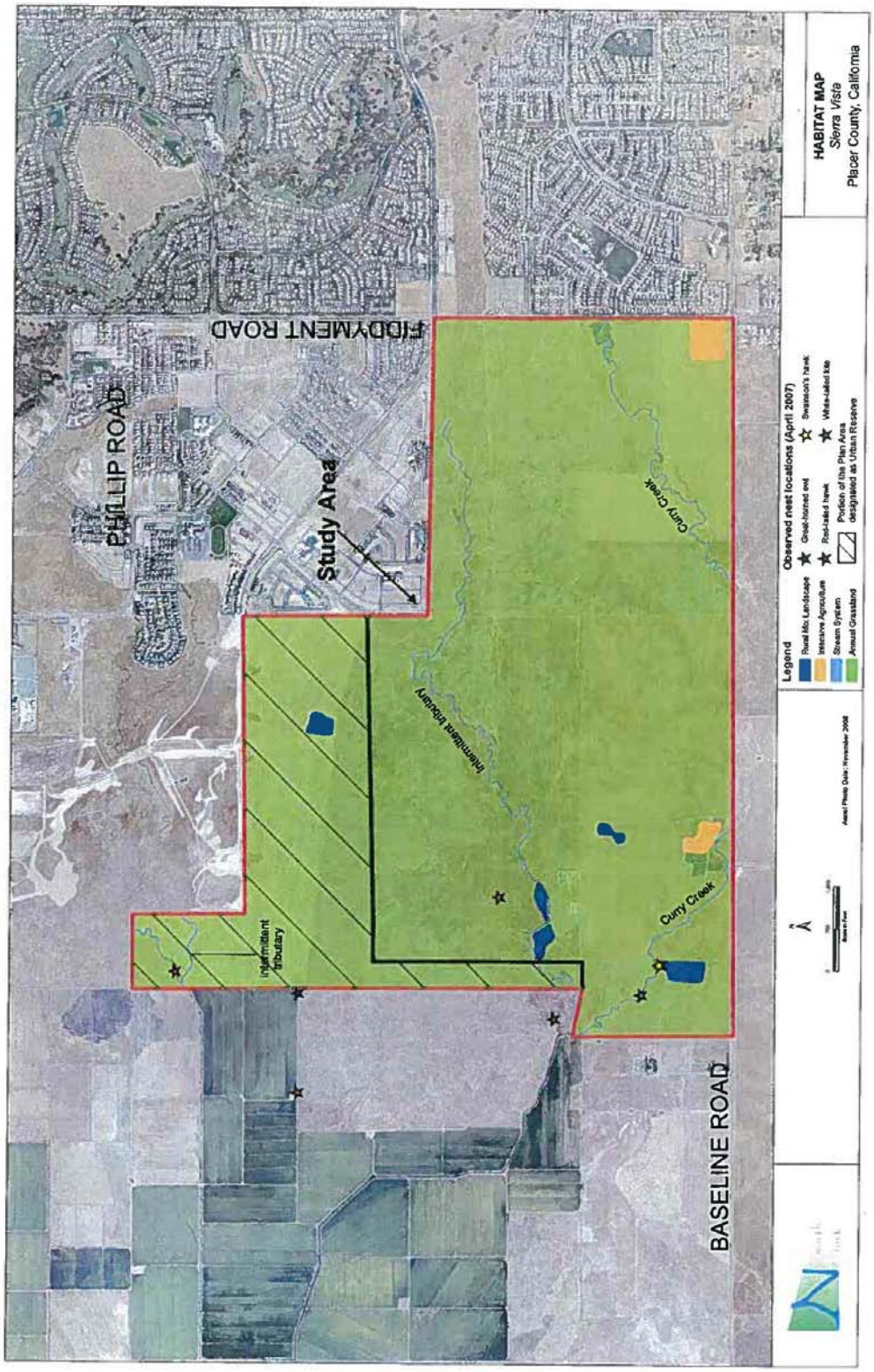


Figure 4.8-1

habitat and emergent marsh. The reach of Curry Creek that meanders through the southeastern corner of the project area between Fiddyment Road and Baseline Road supports a continuous cattail marsh along nearly its entire course. Small patches of emergent marsh are also present along the remainder of Curry Creek between Baseline Road and the western boundary of the project area. Curry Creek supports small, scattered patches of willow-dominated riparian scrub occurring in association with the cattail marsh between Fiddyment Road and Baseline Road. The reach that meanders through the southwest corner supports some scattered willows as well as a few large Fremont cottonwood trees. The emergent marsh vegetation is largely contained within the channel of Curry Creek and the willows are scattered and are not continuous enough Two intermittent tributaries to Curry Creek run east to west across the center of the Project area and the northern tip (Urban Reserve area) of the site. The tributary in the center of the Project area is referred to as Federico Creek. These intermittent streams drain into Curry Creek offsite to the west. They do not support emergent marsh vegetation and were mostly dry during the time of field surveys in April 2007. A low terrace adjacent to Federico Creek supports relatively deep vernal pools that appear less disturbed than vernal pools occurring elsewhere within the project area. This is likely due to the limited disking that has occurred adjacent to the streams.

Strawberry Fields

During field surveys in April 2007, two small portions of the project area supported agricultural activities. These are the small fields along Baseline Road, which have been planted with strawberries and are irrigated. One of the fields is at the corner of Baseline Road and Fiddyment Road, and the other is east of Watt Avenue, north of Curry Creek.

Rural Mix Landscape

A couple of farmsteads are located in the western portion of the project area. These farmsteads include ornamental tree groves (mostly eucalyptus and other farming and ranching features such as buildings, barns, and stock ponds. Other than the Fremont cottonwoods and willows along the streams, the rural mix landscape supports the only trees within the project area. These include pines, eucalyptus, olive, white mulberry, elm, fig, English walnut and catalpa. The homestead landscape is disturbed; however, evidence of the surrounding natural habitats is present along the

edges of the rural landscape in the form of tree species such as valley and interior live oaks and natural wetland features.

Waters of the United States

Over the past five years, several federal jurisdictional delineations were prepared for the various ownership parcels within the Project and Urban Reserve area. Delineations were completed by ECORP, Foothill Associates and Gibson & Skordal and all have been subsequently verified by the U. S. Army Corps of Engineers (USACE)[1]. A total of 36.434 acres of waters of the United States occur within the Project area. Figure 4.8-2 indicates the locations of wetlands on the site.

Curry Creek

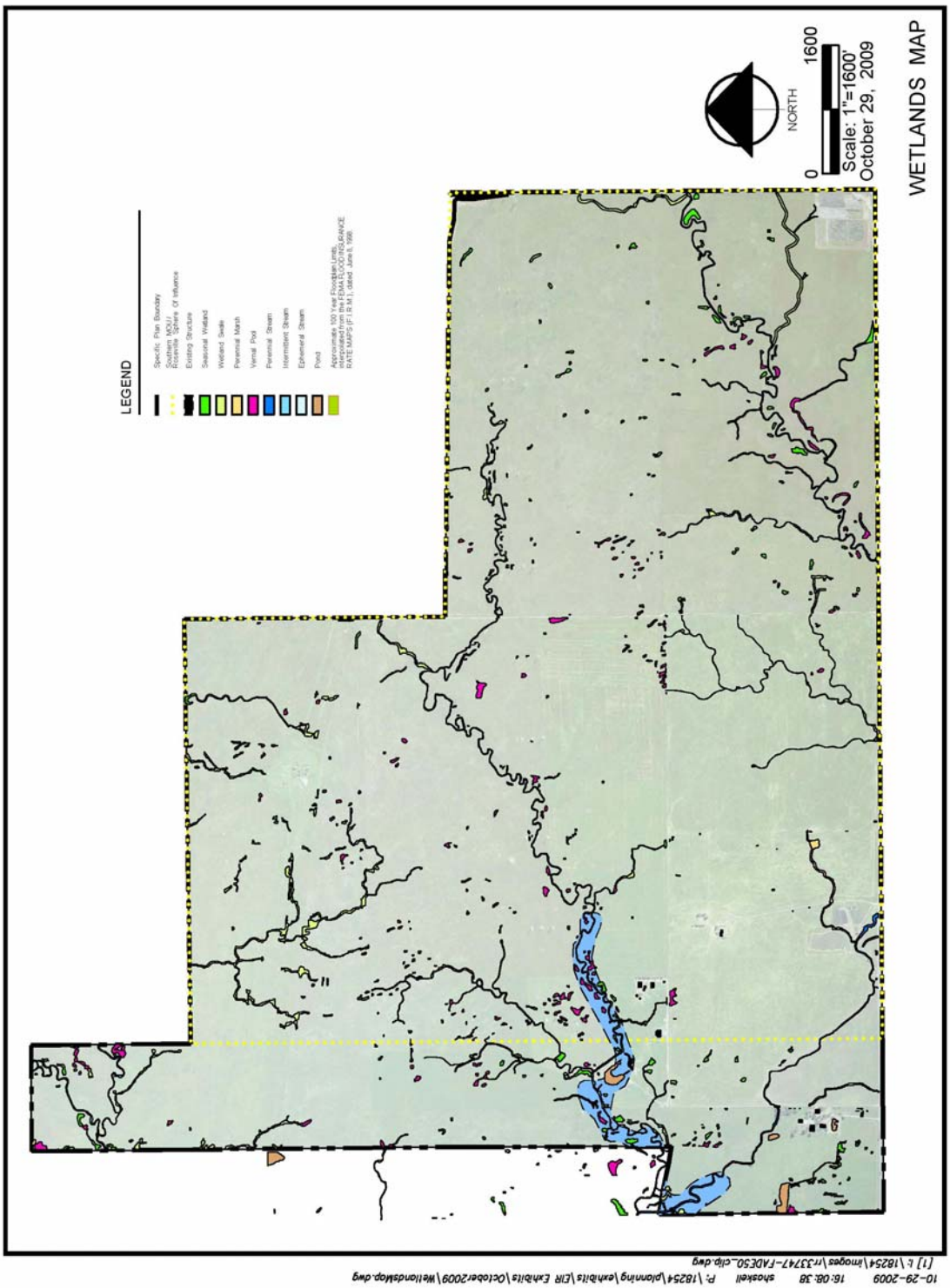
Curry Creek enters the project area from a culvert under Fiddyment Road approximately 0.5 mile north of Baseline Road. It meanders through the southeast corner of the project area before crossing Baseline Road approximately one mile west of Fiddyment Road. It re-enters the project area approximately 0.4 mile east of the western boundary and then traverses the project area until it exits the project area in a northwesterly direction. Much of the water in the creek is likely coming from urban irrigation and runoff. Other than the scattered riparian vegetation, the banks of Curry Creek consist of annual grassland. Curry Creek comprises 2.150 acres within the project area.

Anadromous fish species, such as Central Valley spring and winter-run Chinook salmon and steelhead, do not occur within Curry Creek, which, as it runs through the Project area, is a small intermittent drainage corridor. It is shallow and does not contain sufficient depths of water to support fish for most of the year. Curry Creek supports only resident warm water fish species.

[1] *Comprehensive Clean Water Act Section 404 Application for Sierra Vista* (September 2006)

FIGURE 4.8-2

WETLANDS MAP



Intermittent Tributaries

Intermittent streams flow during rain events and for a period of time after rain events. Intermittent streams receive a baseflow contribution from a seasonally perched ground water table and/or receive surface water from a source that contributes water in the absence of precipitation (e.g., irrigation runoff). Intermittent streams typically exhibit defined bed and banks and have an ordinary high water line. A total of 5.070 acres of intermittent streams occur in the project area. A small reach of the western portion of Federico Creek was classified as an ephemeral stream (totaling 0.019 acres in the project area).[2] Ephemeral streams typically flow only in response to direct rainfall and surface runoff, and do not receive baseflow contribution from a seasonal perched ground water table. They did not convey water during field surveys in April 2007. However, they did contain small pools of water at several locations throughout their course. These deeper areas supported native creeping spikerush and fringed water-plantain. The creek beds support a diversity of non-native species and native vernal pool flora, particularly along the upper reach of the tributary in the central portion of the project area, as described above.

Seasonal Wetland Swales

Seasonal wetland swales are sloping linear wetlands that do not exhibit the bed-and-bank morphology typical of streams. Seasonal wetland swales are scattered throughout the project area and flow to either Curry Creek or the two tributaries. Most of these features are relatively disturbed due to regular disking. The seasonal wetland swales along the northern project area boundary support cultivated wheat and other upland species, along with wetland species such as perennial rye, Mediterranean barley, creeping spikerush, Vasey's coyote-thistle, and iris leaved rush. Less disturbed wetland swales, such as the wetland swale that flows into the intermittent tributary in the central portion of the project area, support mostly native vernal pool flora (e.g., double-horned downigia, Fremont's goldfields, stipitate popcornflower, and dwarf wooly-heads). There are also substantial stretches of swales without depressions that support a dominance of non-native species (perennial rye and Mediterranean barley). A total of 9.879 acres of wetland swales occur in the project area and 7.749 acres occur within the Urban Reserve.

[2] Gibson and Skordal 2009

Vernal Pools

Vernal pools are depressional wetlands underlain by hardpans or duripans that pond with winter and spring rainfall but are dry in the summer and fall. They typically support a variety of invertebrate populations including federally listed branchiopods and endemic flora. There are 10.654 acres of vernal pools in the project area, and 2.994 acres within the non-participating Urban Reserve parcels. Due to past land practices; most of the vernal pools show signs of disturbance. Species found in these vernal pools include stipitate pop cornflower, Fremont's goldfields, double-horned and Solano downingia, Vasey's coyote-thistle, vernal pool buttercup, Pacific foxtail, and annual hairgrass.

Seasonal wetlands

Seasonal wetlands are seasonally inundated and/or saturated depressions. They are similar to vernal pools; however, they support mostly a non-native flora and are not dominated by vernal pool endemics. Within the project area, these depressions collect rain water or receive water from baseflow and/or overbank flooding from adjacent stream during high flows. These depressional seasonal wetlands have been degraded as a result of ongoing disturbance from past farming and/or disking for fire suppression. Common vegetation within the seasonal wetlands includes curly dock, perennial rye, spiny-fruit buttercup, tall flatsedge, Vasey's coyote thistle, and European mannagrass. A total of 5.735 acres of seasonal wetlands occur in the project area, and 1.936 occurs within the Urban Reserve. One wetland originally delineated as emergent marsh (0.859 acre) was functioning like a seasonal wetland at the time of the field surveys in 2007.

Stock Ponds

There are a few large ponds (totaling 2.067 acres) in the western portion of the project area. They are associated with farmsteads, with trees and patches of emergent vegetation (cattails, water plantain, and creeping spikerush) around the perimeter. The ponds were mostly dry at the time of the field visits in April 2007.

Oak Woodland and Tree Resources

Oak woodland is defined as groups of oak trees that have at least 30 percent canopy cover. Very few trees occur within the project site, and no oak woodland occurs within the project area. Several mature cottonwood trees occur along Curry Creek and in other scattered locations. The Arborist Survey Report (2209) inventoried trees within the Project area.[3] In the Project area there are 42 Fremont cottonwood, 18 willow, eight black walnut, five interior live oak, three Oregon ash, and one valley oak. Three eucalyptus stands are present, each associated with former farmsteads.

In the Urban Reserve area there are a total of 21 Fremont cottonwood trees.

Wildlife Occurrence and Use

The region surrounding the project site is becoming increasingly urbanized with residential development. The project site is in an area adjacent to this urban expansion, with existing development to the east and north and proposed development to the south and west.

The project area and surrounding undeveloped landscapes provide suitable habitat for many wildlife species. During the winter and spring months when vernal pools, swales and other seasonal wetlands are inundated, these habitats support a variety of aquatic invertebrates including several special status species, and are key habitats for wintering waterfowl, wading birds, and several amphibian species such as Pacific chorus frog.

Open grassland provides suitable habitat for several breeding and wintering raptors, particularly for foraging habitat. Several prey species were detected during surveys including pocket gopher, meadow vole, and black-tailed jackrabbit. During the spring and summer seasons, locally breeding raptors such as Swainson's hawk, red-tailed hawk, white-tailed kite, northern harrier, and American kestrel are dependent on grassland and agricultural foraging habitats.

During field surveys in April 2007, four red-tailed hawk nests, one Swainson's hawk nest, one possible white-tailed kite nest, and one great-horned owl nest were found within the project area or in adjacent land to the west. Northern harrier and American kestrel were observed foraging in the

[3] Arborist Survey Report (ECORP, 2009)

project area. During the winter, additional species, such a ferruginous hawk, rough-legged hawk, Cooper's hawk and sharp-shinned hawk, also forage in these landscapes.

Grassland habitats are also important nesting habitat for many ground-nesting birds, such as western meadow lark, and horned lark, and are home to several common reptiles such as gopher snake, valley garter snake, and western fence lizard. The trees and the cattail marsh within Curry Creek provide suitable nesting opportunities for red-winged blackbirds and other species that forage in grassland habitats. The flowing and pooled water provide an important source of drinking water for many birds and mammals.

The WAPA electric transmission line through the project site provides cover and burrowing habitat around the tower footings, and perches and nesting opportunities on the towers. During the survey in April 2007, two red-tailed hawk nests were identified on the transmission towers.

There are 12 plant species and 23 species of animals that either occur or have some potential to occur within the project area because of the presence of suitable habitat. Table 4.8-1 lists these species, their habitat and potential for occurrence within the project area.

Wildlife

Aquatic Invertebrates

Three special status invertebrates potentially occur in seasonal wetland habitats in the project area vernal pool tadpole shrimp and Conservancy fairy shrimp (both federally listed endangered species) and vernal pool fairy shrimp (federally threatened). Each of these species occurs in vernal pools and other seasonal wetland habitats throughout the Central Valley, and each is known to occur or potentially occurs in western Placer County. There are numerous records of vernal pool fairy shrimp in southwestern Placer County. There are few records of vernal pool tadpole shrimp. The Conservancy fairy shrimp was recently detected in western Placer County, which has resulted in an expansion of the range for this species that includes the Project area. As a result of urbanization, populations of these species have declined throughout their range. Collectively, these species occur within a range of specific environmental conditions that include soil type, vegetation characteristics, water depth, water temperature, inundation duration and water quality.

TABLE 4.8-1
SPECIAL STATUS SPECIES
THAT COULD OCCUR IN PROJECT AREA

Species	Federal	State	CNPS	Habitat	Potential for Occurrence
Plants					
Henderson's bent grass *Agrostis hendersonii*	-	-	List 3.2	Valley and foothill grassland; vernal pools	Possible. Marginal habitat is present
Big-scale balsam-root *Balsamorhiza macrolepis var. macrolepis*	-	-	List 1 B.2	Cismontane woodland; valley and foothill grassland	Unlikely. Disturbance may preclude this species.

CSC- California Species of Special Concern

FE- Federally Endangered

FT- Federally Threatened

CT- California Threatened

CF- California Fully Protected

CE- California Endangered

CNPS- California Native Plant Society

List 1B- Rare or Endangered in CA

List 2- Rare and Endangered in CA, more common elsewhere

List .1- Seriously endangered in CA

List .2- Fairly endangered in CA

*- Rookeries are tracked and are of special interest to CDFG

TABLE 4.8-1 (Continued)
SPECIAL STATUS SPECIES
THAT COULD OCCUR IN PROJECT AREA

Species	Federal	State	CNPS	Habitat	Potential for Occurrence
Dwarf downingia *Dowingia pusilla*	-	-	List 2.2	Valley and foothill grassland; vernal pools	Occurs. Found at several locations during surveys in both the project area and Urban Reserve
Bogg's Lake hedge-hyssop *Gratiola heterosepala*	-	CE	List 1B.2	Vernal pools	Possible. Marginal habitat is present.
Rose mallow *Hibiscus lasiocarpus*	-	-	List 2.2	Marshes and swamps (freshwater)	Possible. Marginal habitat is present.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	-	-	List 1 B.2	Vernal pools	Possible. Suitable habitat is present.
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*	-	-	List 1B.1	Vernal pools	Unlikely. Nearest known occurrence is considered to be a misidentification (CDFG 2007)
Legenere *Legenere limosa*	-	-	List 1B.1	Vernal pools and seasonal wetlands	Possible. Marginal habitat is present
Pincushion navarretia *Navarretia myersii* spp. *Myersii*	-	-	List 1 B.1	Vernal pools	Possible. Suitable habitat is present.
Slender Orcut grass *Orcuttia tenuis*	FT	CE	List 1 B.1	Vernal pools	Unlikely. Marginal habitat occurs in the project area. Prefers larger, deeper pools. Not known in Placer County.
Sacramento Valley Orcutt grass *Orcuttia viscida*	FE	CE	List 1 B.1	Vernal pools	Unlikely. Marginal habitat occurs in the project area. Prefers larger, deeper pools. Not known in Placer County
Sanford's arrowhead Sagittaria sanfordii	-	--	List 1 B.2	Marshes, swamps, and other wetlands	Possible. Suitable habitat is present along streams.
Invertebrates					
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	-	-	Vernal pools, swales, seasonal wetlands	Occurs. Observed during 2005-2007 wet season surveys.

TABLE 4.8-1 (Continued)
SPECIAL STATUS SPECIES
THAT COULD OCCUR IN PROJECT AREA

Species	Federal	State	CNPS	Habitat	Potential for Occurrence
Conservancy fairy shrimp *Branchinecta conservatio*	FE	-	-	Vernal pools, swales, seasonal wetlands	Unlikely. Not detected during surveys.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	-	-	Vernal pools, swales, seasonal wetlands	Unlikely. Not detected during surveys.
Amphibians					
California tiger salamander *Ambystoma californieinse*	FT	CSC	-	Vernal pools, vernal pool grasslands, ponds	Unlikely. Not detected during surveys and no recent or historical records from western Placer County
California red-legged frog *Rana aurora draytonii*	FT	CSC	-	Deeper pools and streams with emergent or overhanging vegetation	Unlikely in project area. Marginal habitat. No recent records from western Placer County
Western spadefoot *Spea hammondii*	-	CSC	-	Vernal pools, upland grasslands	Possible. Not detected during surveys; however, suitable habitat and known from nearby locations.
Reptiles					
Western pond turtle *Clemmys marmorata*	-	CSC	-	Ponds, marshes, river, streams and ditches with basking sites and vegetation	Unlikely. Marginal habitat
Giant garter snake *Thamnophis gigas*	FT	CT	-	Streams, irrigation channels, seasonal wetlands	Unlikely. Marginal habitat.
Birds					
Tricolored backbird *Agelaius tricolor*	-	CSC	-	Open water areas with tall emergent vegetation or in willow and blackberry thickets	Possible. Suitable habitat.
Great egret (rookery) *Ardea alba*	-	*	-	Colonial nester in tall trees.	Unlikely. Marginal habitat.

TABLE 4.8-1 (Continued)
SPECIAL STATUS SPECIES
THAT COULD OCCUR IN PROJECT AREA

Species	Federal	State	CNPS	Habitat	Potential for Occurrence
Great blue heron (rookery) *Ardea herodias*	-	*	-	Colonial nester in tall trees	Unlikely. Marginal habitat.
Burrowing owl *Ahtene cunicularia*	-	CSC	-	Grasslands, agricultural lands	Occurs. On individual observed in 2005. Suitable habitat.
Swainson's hawk *Buteo swainsoni*	-	CT	-	Grasslands, agricultural lands	Occurs. Observed nesting in the southwestern corner of the project area (2007)
Ferruginous hawk Buteo regalis	-	CSC	-	Grasslands, agricultural lands	Likely- winter only.
Northern harrier *Circus cyaneus*	-	CSC	-	Grasslands, seasonal wetlands, agricultural lands	Occurs. Observed foraging. (2007)
Snowy egret (rookery) *Egretta thula*	-	*	-	Colonial nester in dense tules.	Unlikely. Marginal habitat.
White-tailed kite Elanus leucurus	-	CFP	-	Open grassland, and farmlands. Nests in tall trees near foraging areas.	Occurs. Possible nest observed in the southwestern corner of the project area. (2007)
Greater sandhill crane *Grus candadensis tabida*	FT	-	-	Seasonal wetlands, irrigated pastures, alfalfa and corn fields.	Unlikely. Marginal habitat
Loggerhead shrike *Lanius ludovicianus*	-	CSC	-	Grasslands, pastures, agricultural lands	Occurs. Observed foraging.
California black rail *Laterallus jamaicesis*	-	T	-	Shallow, perennial freshwater marshes	Unlikely. Habitat along Curry Creek, but few regional occurrences.
Long-billed curlew Numensius americanus	-	-	-	Winter foraging and roosting habitat in pastures, seasonal wetlands and some cultivated lands	Likely for wintering.

TABLE 4.8-1 (Continued)
SPECIAL STATUS SPECIES
THAT COULD OCCUR IN PROJECT AREA

Species	Federal	State	CNPS	Habitat	Potential for Occurrence
Black-crowned night-heron (rookery) *Nycticorax nycticorax*	-	*	-	Colonial nester in trees and tule patches	Unlikely. Marginal habitat.
Mammals					
Pallid bat *Antrozous pallidus*	-	CSC	-	Shrublands, grasslands, woodlands, forests; rocky areas, caves, hollow trees	Possible for foraging, unlikely for roosting.
Twonsend's big-eared bat *Corynorhinus twonsendii twonsendii*	-	CSC	-	Most low to mid-elevation habitats; caves, mines, and buildings for roosting.	Possible for foraging, unlikely for roosting.
Yuma myotis *Myotis yumanensis*	-	CSC	-	Forests and woodlands; caves, mines, and buildings for roosting	Possible for foraging, unlikely for roosting.

In general, vernal pool and seasonal wetland habitats that meet the general definition of habitat are considered suitable habitat by these species.

ECORP conducted wet season surveys for listed branchiopod, completing the second year of the two wet season surveys in 2006-2007. Where one of the listed branchiopods were found within a watershed, it was assumed that that all suitable habitat within that watershed was occupied and no further sampling was conducted in that watershed. Where listed branchiopods were not found, sampling continued through the second wet season. As a result, those watersheds where listed branchiopods were not found were subject to two full wet season protocol surveys. Of the 432 pools sampled during the 2005-2006 season, four were found to be occupied by vernal pool fairy shrimp. During 2006-2007 surveys, vernal pool fairy shrimp were found in two additional locations, for a total of five watersheds within the project area. Two of the watersheds are entirely within the Urban Reserve area, and one is entirely within the project area. The remaining two watersheds cover portions of both the Urban Reserve and project area. These occupied watersheds encompass 4.216 acres of vernal pool fairy shrimp habitat in the project area, and 3.826 acres of habitat in the Urban Reserve.

Neither the vernal pool tadpole shrimp nor the Conservancy fairy shrimp were detected during these surveys. Each species has a very restricted known distribution in western Placer County compared with the vernal pool fairy shrimp. Thus, while these species could potentially occur, they are considered unlikely to occur in the project area.

California tiger salamander is a federally threatened species and a state species of special concern. It can be found in vernal pools and seasonal ponds, including stock ponds, in grassland, from sea level to about 1,500 feet in central California. No known tiger salamanders occur in the project vicinity. No specific surveys were conducted for the salamander. The species was not detected during extensive vernal pool and seasonal wetland surveys for listed branchiopods and western spadefoot. Thus, it is unlikely that the species occurs in the project area.

California red-legged frog is a federally listed threatened species and is designated as a state species of special concern. Once common, most of the remaining populations occur in the Coast Ranges. The nearest known occurrence in Placer County is at Michigan Bluff, approximately 50 miles northeast of the project site, a considerable distance away. No red-legged frogs have been found in the project vicinity. Although Curry Creek provides potential habitat, bullfrogs are predators of the California red-legged frog (CRLF), and were detected within Curry Creek which makes it unlikely that the CRLF is present within the project area. There is no potential habitat within the Urban Reserve areas.

Western spadefoot toad is a state species of special concern. It occurs throughout the Central Valley and adjacent foothills up to 4,500 feet. The American spadefoot toads are of typical shape to most burrowing frogs. They are round, with short legs and protruding eyes. As suggested by their name, this frog has hard, keratinous protrusion present on their feet, which helps them to dig. Like most burrowing frogs, they will dig backwards into the ground.

ECORP indicate that there are four occurrences within five miles of the project. All of the recorded sites have likely been disturbed or are threatened due to past and ongoing urbanization in the Roseville area. While the project area contains suitable habitat for the spadefoot, species-specific surveys conducted by ECORP in 2006 and 2007 on the majority of the project area did not detect the species within the project area. Surveys for the Baybrook property and the Chan property were not conducted due to lack of rainfall and inundation of vernal pools at that time.

Giant garter snake is a state and federally listed threatened species. The Natomas Basin contains the nearest known occurrence, approximately five miles to the west. While the Project area is not within the known current distribution of giant garter snake, Curry Creek is hydrologically connected to the Natomas Basin. The project area supports marginally suitable habitat for the snake. Thus while occurrence is unlikely, there remains the potential for occurrence within the Project area.

Greater sandhill crane is a state listed threatened species. Portions of the Sacramento-San Joaquin Delta and Cosumnes River basin are principal wintering grounds for the crane. Most traditional foraging areas are near communal roost sites (within 2-3 miles) that are flooded with several inches of standing or slowly moving water. Foraging habitat includes harvested fields, irrigated pastures, alfalfa fields and seasonally flooded habitats. The potential for occurrence in the Project area is considered low.

Northern harrier is a state species of special concern. While population declines in California have been noted for many years, the species can be locally abundant. They occur primarily in open wetland, grassland, and agricultural habitats. The northern harrier is a ground-nesting raptor, which nests on the ground in marsh, grassland, and some agricultural habitats, particularly grain fields. They forage in seasonal wetland, grassland, and agricultural habitats. Several adult northern harriers were observed foraging in the project area during the survey. The cattail marsh and associated seasonal wetland habitats along Curry Creek, particularly in the eastern portion of the project area, provide suitable nesting habitat for this species. No nests were observed at the time of the survey.

White-tailed kite is a state species of special concern and a state fully protected species. The white-tailed kite nests in riparian forests and woodlands, and occasionally in isolated trees. They forage in grasslands, seasonal wetlands, and agricultural fields.

A possible white-tailed kite nest was observed in a locust tree along Curry Creek in the southwestern corner of the project area. An adult kite was observed exhibiting defensive behavior; however, the nest was positioned such that no activity could be discerned. Due to the presence of the kite and its behavior, nesting activity is highly probable in the project area. The project area provides suitable foraging habitat for the white-tailed kite.

Swainson's hawk is a state listed threatened species. It forages in open grassland in the Central Valley and Great Basin and nests in riparian forests, remnant oak woodlands, isolated trees, and roadside trees. They forage primarily in agricultural habitats, particularly those that optimize availability of prey, and also use irrigated pastures, and annual grasslands. The scattered valley oak, cottonwood, willow, and eucalyptus trees located in the project area provide suitable nesting opportunities.

One Swainson's hawk nest was observed in the southwestern corner of the project area during surveys in April 2007. It is located in a eucalyptus tree on the north side of the farmstead. Numerous nest sites are known to occur in the vicinity of the project area. The entire project site is considered suitable foraging habitat for the Swainson's hawk.

Ferruginous hawk is designated as a state species of special concern. It typically does not nest in California. Individuals migrate into California during the winter where they utilize open grassland and agricultural land for foraging and roosting. The project site provides suitable grassland wintering habitat for this species. While it probably is only an occasional visitor, its potential for occurrence during the winter is high.

California black rail is a state-listed threatened species. Until recently, the current range of this species was thought to be restricted mainly to coastal marshes. In the 1990's populations were discovered in freshwater marshes in Yuba County. Recently the black rail was detected in the City of Rocklin in Clover Valley and along Yankee Slough southeast of Sheridan. The black rail typically inhabits marshes dominated by bulrushes and cattails. A relatively narrow range of conditions is required for occupancy and successful breeding. Too much water will prevent nesting and too little water will lead to abandonment of the site. Because of its continuing range expansion, it is possible that it might occupy the emergent marsh of the project site.

Long-billed curlew, until recently, was a state species of special concern. The population was significantly reduced at the end of the 19th century by hunting. Numbers have rebounded sufficiently in more recent times, so that it no longer is a state species of special concern. The species is not included on the recent revision to this list. While none were reported during surveys, the long-billed curlew likely occasionally occurs in the plan area during the winter. The open grazed

grasslands are suitable foraging and roosting habitat for this species, which is fairly wide-ranging during the winter season.

Western burrowing owl is a state species of special concern. It is a small ground-dwelling owl, typically occupying the burrows created by ground squirrels. They also occupy artificial habitats, such as those created by pipes and small culverts. Burrowing owls forage in grassland and agricultural habitats with low vegetative height.

No burrowing owls or active burrows were detected during the most recent field survey. ECORP recorded a burrowing owl occupying a debris pile in the project area during October 2005. It was not observed during subsequent surveys by ECORP in 2006. The nearest recorded burrowing owl site is approximately one mile north of the project area, and has presumably been displaced as a result of the development of the West Roseville Specific Plan.

An evaluation of the habitat during the April 2007 field surveys determined that the SVSP had relatively little ground squirrel activity and thus few potential nesting opportunities for burrowing owl. The entire project area is otherwise considered suitable for burrowing owls and is likely occasionally used for foraging.

Tri-colored blackbird is a state species of special concern and more than 99% of the global population occurs in the state. In any given year, more than 75% of the breeding population can be found in the Central Valley. They breed in colonies that require the following: open accessible water; a protected nesting area including either flooded or thorny or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony.

The tri-colored blackbird was not observed during the field survey. However, the cattail marsh along Curry Creek in the southeastern portion of the project area provides potential nesting habitat, and the surrounding grasslands provide suitable foraging habitat. The nearest known reported occurrence is in Lincoln.

Loggerhead shrike is a species of special concern. It is a permanent resident and winter visitor throughout California. They prefer open habitats with scattered trees, shrubs, posts, fences, utility lines or other perches. It nests in small trees and shrubs, and forages in pastures and agricultural

lands. One loggerhead shrike was observed during the field survey in April 2007. No nests were located. The entire Project area is suitable foraging habitat, while nesting habitat is limited.

Heron/Egret Rookeries

Rookeries are colonial nesting sites for heron and egret species. While these species are not considered special status species, rookeries are included on the CDFG's special animals list because these breeding colonies can support a large segment of local populations. There are currently no rookeries in the project area. The eucalyptus groves may provide potential rookery sites for all of these species, and the cattail marsh associated with Curry Creek may provide potential breeding habitat for black-crowned night heron and snowy egret. However, these species typically nest in association with marshes and irrigated pasture land or irrigated crop land that provides a greater source of food than do the un-irrigated pasture lands in the project area. Thus the occurrence of a rookery onsite is considered unlikely.

4.8.3 REGULATORY SETTING

Federal

The U.S. Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (FESA) except for anadromous fish species and other salt water species. Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain authorization from the USFWS through either Section 7 (Interagency Consultation) or Section 10 (a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The authorization process, be it through Section 10 or Section 7, is used to determine whether a project would jeopardize the continued existence of a listed species or cause the destruction or adverse modification of designated critical habitat for the species, and what mitigation measures would be required to avoid jeopardizing the listed species and/or minimize incidental take of the listed species.

"Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Incidental take is defined as a take of listed fish or wildlife that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or private party. Section 10 (a) (1) (B) requires an applicant for an incidental take permit to submit a "conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will

undertake to minimize and mitigate such impacts." Where Section 7 is involved, incidental take authorization is provided by the incidental take statement included in the Biological Opinion.

City/U.S. Fish and Wildlife Service MOU

In August 2000, the City and the USFWS entered into a memorandum of understanding (MOU) to prepare a Habitat Conservation Plan (HCP) or equivalent permit process to minimize the indirect impact and incidental take of vernal pool species from future City growth. Co Consistent with this agreement, the City of Roseville, the SVSP Landowners, and the USFWS, the USACE, and the U.S. Environmental Protection Agency (EPA) conducted an extensive early consultation process. The group met on 14 different occasions between March 2007 and August 2008 with the following objective: to reach basic agreement on a land use plan and mitigation strategy that could be permitted under Section 404 of the Clean Water Act utilizing a Section 7 Consultation process for ESA compliance. Modifications to the proposed land use plan were made based on feedback received, which resulted in additional avoidance areas.

Vernal Pool Recovery Plan

The SVSP is located within the area covered by the "Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon" (December 15, 2005), also referred to as the Vernal Pool Recovery Plan. According to the preface, such plans are voluntary guidance documents, not regulatory documents, which broadly address conservation needs of the species. Recovery plans are necessarily expansive, identifying many options and strategies that may contribute to recovery.

According to the Vernal Pool Recovery Plan, "no agency or other entity is required by the Endangered Species Act to implement the recovery strategy or specific recommended action in a recovery plan," (page J-2), and that recovery plans are also "not land use plans and cannot restrict activities proposed by other agencies or the public." (Page J-4).

A recovery plan neither expands nor contracts any obligations under the ESA. Whether or not the USFWS has adopted a recovery plan, all persons are subject to the prohibitions against take of a listed species in Section 9 of the ESA, and all federal agencies must comply with the requirement under Section 7 of the ESA to ensure that its actions do not jeopardize the continued existence of a listed species or adversely modify designated critical habitat

Migratory Bird Treaty Act of 1918 (MBTA)

The MBTA makes it "unlawful to take any migratory bird listed in 50 CFR Part 10, including nests, eggs, or products". This regulation is pertinent to any shrub or tree removal required for a proposed project, or project-related disturbance that could affect nesting migratory birds. The MBTA could require that elements of the proposed project (particularly vegetation removal) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed. Disturbance that cases nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "taking".

Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Waters of the United States. Section 401 prohibits the discharge of any pollutant into the Waters of the United States without certification that the discharge would not violate applicable water quality standards, and Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates "point sources" of water pollution. Section 404 of the Act requires a USACE permit for discharges of dredged or fill materials into waters of the United States (as defined in the Code of Federal Regulations (33 CFR Section 328.3 [a]; 40 CFR Section 230.3 [s]). Section 404 of the CWA is administered by the USACE.

State

California Endangered Species Act (CESA)

The California Department of Fish and Game (CDFG) administer a number of laws and programs designed to protect biological resources. CESA regulates the listing and take of state-endangered (SE) and state-threatened (ST) species. CESA establishes that it is the policy of the State of California to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under CESA cannot be taken without adequate mitigation and compensation. The definition of take under CESA is narrower than that described under FESA, as the state definition does not include "harm" or "harass." Rather, Fish and Game Code Section 86 defines "take" to mean "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Typically, the CDFG implements endangered species protection and take determinations through the issuance of incidental take permits pursuant to Fish and Game Code Section 2081. Species listed under CESA cannot be "taken" without mitigation and compensation.

California candidate species are given protection that is equal to that provided to listed species. In addition, separate and apart from CESA, CDFG also identifies what it calls Species of Special Concern (CSC) based on limited distribution, declining populations, diminishing habitat, and/or unusual scientific, recreational, or educational value. These species are not afforded the same legal protection as listed species, but may be added to official lists in the future. The designation of CSC is intended by the CDFG as a management tool for consideration in future land use decisions. As a consequence, the CDFG typically requests that CEQA lead agencies give consideration to minimization of impacts to CSC species when approving projects.

Natural Communities Conservation Planning Act

Sections 2800–2835 of the California Fish and Game Code detail the State's policies on the conservation, protection, restoration, and enhancement of the State's natural resources and ecosystems. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used as a tool to eliminate conflicts between the protection of the State's natural resources and the need for growth and development. In addition, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners, and as a mechanism for multi-species and multi-habitat management and conservation. A Natural Communities Conservation Plan (NCCP) can be an alternative to an incidental take permit issued under CESA as a source of take authorization for state-listed species.

Fully Protected Species Four sections of the California Fish and Game Code (Sections 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], and 5515 [fish]) list 37 fully protected species. CESA prohibits take or possession at any time of fully protected species. CDFG is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. CDFG has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.

Protection of Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e. hawks, owls, eagles, and falcons), including their nests or eggs. Typical violations involve removal of vegetation in which nests are located resulting in destruction of active nests. Violation of Section 3503.5 could also involve failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction.

Sections 3511 and 3503.5 of the Fish and Game Code

The CDFG derives its authority from the Fish and Game Code of California. Species listed under CESA cannot be "taken" without mitigation and compensation.

Sections 1600-1607 of the Fish and Game Code

Under Section 1600-1607 of the California Fish and Game Code, CDFG regulates activities that would substantially alter the flow, bed, channel, or bank of streams and lakes. The lateral limits of CDFG's jurisdiction are defined in the statute as the bed, channel, or bank of any river, stream, or lake designated by CDFG in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit…" In practice, CDFG usually determines its lateral limit of jurisdiction to be the top of bank or the outer edge of the riparian vegetation, whichever is farther from the middle of the water body in question.

State Water Resources Control Board

The State Water Resources Control Board administers Section 401 of the Clean Water Act. Section 401 of the CWA requires that an applicant for a Section 404 permit must first obtain a certification, or a waiver thereof, that the project will not violate applicable state water quality standards. In California, the authority to either grant certification or waive the requirement for certification has been delegated by the State Water Resources Control Board to the nine regional boards, including, in the Roseville area, the Central Valley Regional Water Quality Control Board. A request for certification or waiver is typically, but not is not required to be submitted to the regional board at the same time that the Section 404 application is filed with the USACE. The regional board has 60 days from receipt of a complete application to review the application and act. Because no USACE

permit is valid under the CWA unless "certified" by the state, the regional boards may effectively veto or add conditions to any USACE permit.

Additionally, implementation of the State Water Resources Control Board NPDES General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities ("General Permit") would reduce impacts associated with erosion and runoff from construction sites. As described in more detail in Section 4.13, Hydrology and Water Quality (see subsection 4.13.3 and Impact 4.13-4), for any construction that would disturb one or more acres of land, the "discharger" must obtain coverage under the General Permit. In order to obtain coverage under the General Permit, the discharger must undertake a risk assessment, develop a Storm Water Pollution Prevention Plan (SWPPP), implement Best Management Practices (BMPs) in accordance with the SWPPP, and comply with monitoring and reporting requirements and other management practices to prevent or reduce pollution.

Local

Placer County Conservation Plan (PCCP)

For the past several years, Placer County has been working with regulatory agencies and stakeholders to prepare a Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) to address the conservation of natural communities, endangered species and other less sensitive species of native wildlife that could be affected by actions in the County and other participating agencies such as the Placer County Water Agency (PCWA) and the City of Lincoln. As part of the process, the County intends to apply for a Clean Water Act Section 404 Programmatic General Permit (PGP), CDFG Master Streambed Alteration Agreement (MSAA) and Clean Water Act Section 401 Water Quality Certification. Collectively, the NCCP, HCP, PGP, MSAA, and Water Quality Certification application have been termed the Placer County Conservation Plan (PCCP). At this time the County is focusing on Phase 1, which addresses lands within western Placer County (lands west of Auburn to the western county line). Listed species that are presumed to be covered by such a plan include but are not limited to: Swainson's hawk, vernal pool fairy shrimp, vernal pool tadpole shrimp, and several listed fish species. The City of Roseville is currently not participating in the PCCP because of the City's existing MOU with the USFWS. Uses and mitigation proposed as part of the SVSP are designed to be compatible with the PCCP.

Placer Legacy Open Space and Agricultural Conservation Program

The Placer Legacy program, in conjunction with resource agencies and local stakeholders, is intended to protect and conserve open space and agricultural lands in Placer County. A key element of the program is to enable the County to make itself a willing buyer to persons wishing to sell interest in lands having value for conservation purposes.

City of Roseville

City of Roseville Design and Construction Standards

Implementation of Section 111 of the City's Construction Standards would reduce impacts associated with erosion and runoff from construction sites containing soil or other materials that could degrade water quality if discharged to local streams and changes in surface water or groundwater quality from storm water runoff by requiring the development of an Erosion Control Plan. The erosion control plan would include a description of the site, time restrictions, erosion and sediment controls to be used, means of waste disposal, control of post-construction sediment, erosion control measures, maintenance responsibilities, landscaping during and after grading, and non-storm water management controls.

Further Section 111.6 of the Construction Standards contains the following specifications for grading adjacent to wetlands:

Grading activities adjacent to sensitive wetland or creek areas shall be conducted under the conditions set forth under the Grading Permit. These conditions shall also include:

1. Prior to construction within any phase of the project, high visibility temporary construction fencing shall be installed along the parcel adjacent to the preserve or creek. Fencing shall be maintained daily until permanent fencing is installed, at which time the temporary fencing shall be removed from the project site.

2. With the exception of access required for maintenance and/or emergency vehicles, the project shall be designed to prevent vehicle access into the Open Space Preserve. Post and cable fencing or other improvements shall be utilized to meet this requirement.

3. Landscaping adjacent to the Open Space Preserve shall be California native, drought-tolerant groundcover, shrubs, plants and trees.

4. The Pre-Construction meeting shall address the presence of the Open Space Preserve, the sensitive habitats present and minimization of disturbance to the Open Space Preserve. During grading and construction the preserve area shall be avoided and shall not be used for parking, storage, or project staging. The contractor shall remove all trash blown into the preserve from adjacent construction on a daily basis. After construction is complete, the temporary fencing shall be removed from the preserve, along with all temporary erosion control measures.

City of Roseville Zoning Ordinance-Tree Preservation (Chapter 19.66)

The City of Roseville Tree Preservation Ordinance protects native oak trees 6-inches or more in diameter at breast height (dbh) and specific landmark trees. As specified below, the ordinance requires a permit for any activity that would harm, destroy, kill or remove any protected tree. In addition to removal, grading (cut or fill) and trenching within the dripline are subject to permit approval.

19.66.030 Tree Permits. Permit required. No person shall conduct any regulated activities within the protected zone of any protected tree; or harm, destroy, kill or remove any protected tree unless authorized by a tree permit.

B. Type of Permit.

1. Administrative Tree Permit. An administrative tree permit is required for any regulated activity affecting one or more protected trees, when the regulated activity is not associated with a discretionary project, does not include the removal of a protected tree, and the requested encroachment does not exceed 20 percent of the projected zone of any individual protected tree.

2. Tree Permit. A tree permit is required for any regulated activity within the protected zone of a protected tree where the encroachment exceeds 20 percent of the protected zone, or where the regulated activity is related to a discretionary project. In addition, a tree permit is required for the removal of any protected tree, unless otherwise exempted by this chapter.

Tree permits may be conditioned to include replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the removed trees (an inch being equivalent to a 15-gallon tree). The total of replacement trees shall equal the combined diameter of the trees removed. A minimum of 50 percent of replacement trees shall be native. The preferred replacement alternative is onsite.

The tree ordinance specifies requirements for Arborist's Reports as specified in 19.66.050:

A. Minimum Information: The arborists report shall include the following information:

1. Identification of each protected tree by number;
2. Botanical name of tree(s) by tree number;
3. Common name of tree(s) by tree number;
4. Location by tree(s) number;
5. Diameter at breast height (DBH) by tree number;
6. Height by tree number (optional);
7. Dripline radius by tree number;
8. Condition by tree number; and
9. Recommendations for each protected tree by number.

City/U.S. Fish and Wildlife Service MOU

As an outgrowth of the August 2000 City of Roseville/USFWS MOU, the City in coordination with the USFWS and USACE is preparing a Preserve Area Overarching Management Plan (Overarching Plan). The Overarching Plan will replace various existing operation and management plans for open space Preserves established by 404 Permit that are located within the City limits. The Overarching Plan will consolidate preserve management under a single plan allowing for more consistent management across Preserves. The Overarching Plan adapts and reallocates monitoring resources to collect more comprehensive and meaningful monitoring data, and combines reporting requirements under a single cover increasing report preparation and review efficiencies for both the City and the federal reviewing agencies. It is anticipated that following dedication to the City, SVSP Open Space Preserve areas will be managed by the City, in accordance with the City's Overarching Plan.

City of Roseville Floodplain Development Regulations

Implementation of Chapter 9.80 of the Municipal Code (Flood Damage Prevention) would control the alteration of natural flood plains, stream channels, and natural protective barriers which help accommodate or channel flood waters. In addition, regulations would control fill, grading, dredging and other development which may increase flood damage. Specifically 9.80.30 includes:

A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

D. Controlling fill, grading dredging and other development which may increase flood damage and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

City of Roseville General Plan

The City of Roseville General Plan establishes goals and policies for the preservation of the value of biological resources in the community. These policies are specific to vegetation and wildlife. However, other policies intended to preserve water quality, air quality, and other features also benefit and protect biological resources.

Goal 1: Preserve, protect and enhance a significant system of interconnected natural habitat areas, including creek and riparian corridors, oak woodlands, wetlands, and adjacent grassland areas.

Goal 2: maintain healthy and well-managed habitat areas in conjunction with one another, maximizing the potential for compatible open space, recreation, and visual experiences.

Goal 3: Protect special status species and other species that are sensitive to human activities.

Policy 1: Incorporate existing trees into development projects, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

Policy 2: Preserve and rehabilitate continuous riparian corridors and adjacent habitat along the city's creeks and waterways.

Policy 3: Require dedication of the 100-year flood plain or comparable mechanism to protect habitat and wildlife values in perpetuity.

Policy 4: Require preservation of contiguous areas in excess of the 100-year flood plain as merited by special resources or circumstances. Special circumstances may include but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.

Policy 5: Limit recreation activities within the 100-year flood plain and require additional setback areas for trails and other public recreation uses so that natural resource areas are not adversely impacted.

Policy 6: Provide for the protection and enhancement of native fishery resources, including continued coordination with the California Department of Fish and Game to release water into Linda Creek.

Policy 7: Require cumulative mitigation plans for wetlands, where feasible, in association with specific plans.

Policy 8: Consider substitute site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

Policy 9: Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas.

Policy 10: Manage public lands with special status species to encourage propagation of the species and discourage non-indigenous, invasive species.

Policy 11: Habitat preservation and mitigation for woodlands, creeks, riparian and seasonal wetland areas should occur within the defined boundaries of the impacting projects where long-term resource viability is feasible and desirable.

Policy 13: Work with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation banking.

The *Wetland Mitigation Guidelines* in the General Plan provide that "[i]In conjunction with required environmental review per CEQA," the City shall "regulate the preservation, mitigation, monitoring and maintenance of wetland areas in coordination with the California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency. For federally non-regulated wetlands, the City may require compensation or mitigation based on the value of the resource and reserves the right to consider not-in-kind compensation".

Wetland preservation, mitigation, monitoring and maintenance efforts in Roseville shall, where feasible, comply with the following principles:

- Avoidance of resources as a first priority, with compensation or mitigation implemented when avoidance is determined not to be feasible or desirable;
- No net loss of wetland acreage, values or function, or habitat of comparable value is provided;
- Comprehensive rather than incremental preservation, compensation or mitigation programs;
- Preservation, compensation or mitigation efforts focused on enhancing and expanding existing resource areas rather than creating isolated resource pockets;
- Preserves, compensation or mitigation areas created that are large enough to be self-sustaining and ensure the long-term preservation of wetland resources and required watersheds, provide an adequate buffer, and have a sufficient number of wetlands to support adequate species populations and range;

- Preserves and compensation or mitigation areas selected on their representative habitat quality, watershed integrity, defensibility, buffer, size, plant species, variety, and presence of special status species.

When avoidance is determined not to be feasible or desirable, compensation or mitigation shall occur based on the following priorities:

1. On-site within the identified project or specific plan area when long-term resource viability is feasible.
2. Off-site, but within the City of Roseville, when on-site compensation or mitigation is determined not to be feasible or desirable.
3. Off-site outside the City, only when the above two options are determined not to be feasible or desirable. Compensation or mitigation efforts outside the City should be in proximity and accessible to Roseville residents and should be coordinated with regional preservation and banking efforts. Proposals to provide wetland compensation or mitigation outside the City shall be accompanied by documentation indicating how the compensation or mitigation proposal benefits the resource and the City and how the loss of open space resources in the City will be mitigated.

All wetland preserve, compensation or mitigation areas shall be designated as permanent open space and maintained as specified in implementation measures 6 and 7 of the general plan. City property may be utilized for preservation or mitigation if such efforts do not conflict with existing resources, recreational opportunities or other City goals, policies and programs. Pedestrian and cyclist access to preservation and compensation or mitigation areas shall be well-defined and limited to minimize impacts upon the resources. Areas identified s having special status species shall be monitored and managed to encourage the continued viability of the species and discourage non-indigenous invasive species.

City of Roseville Beaver Management Policy

The Beaver Management Policy was created as a General Plan implementation measure. The policy provides the criteria and process for beaver management actions. This includes identifying the circumstances, or criteria, that would trigger a management response. Issues that could trigger a management response include public health and safety, potential impacts to public utilities or public improvements, and potential impacts to preserve, resource mitigation areas and/or other

significant natural resources. In general the policy is built on a progressive management strategy that initially calls for the least invasive techniques to discourage problem beaver dams. This may involve partially breaching the dam or installing devices to prevent excessive ponding behind the dam if site conditions allow and the action would alleviate the initial concern. Depending on site conditions, tree wraps and scent deterrents could also be used in an attempt to discourage tree and vegetation removal and therefore limit available resources that can be used by beaver for dam reconstruction. It should be noted that the policy does allow for the sequence of progressive management actions leading to dam removal to be bypassed and the beaver dam removed if circumstances warrant as determined by the Public Works or Environmental Utilities Director.

Applicable SVSP Measures

The specific plan includes several polices designed to protect existing resources listed below:

- No net loss of wetland functions, habitat and values
- Development of a "vernal pool strategy" consistent with the City/USFWS MOU
- Designation of creek corridors/floodplains as open space

4.8.4 IMPACTS

Methods of Analysis

This analysis of potential project impacts to biological resources (wildlife and vegetation) background and historic record searches, review of previous field investigations and reconnaissance level visits to the site, and the Biological Resources Assessment (North Fork Associates 2009) prepared for the project. Background research included reviewing the CDFG Natural Diversity Database (CNDDB) and the California Native Plant Society's Electronic Inventory to determine the potential for occurrence of special status plant or wildlife species in the project vicinity.

A series of natural resource investigations were conducted for the Project area. Reports detailing the results were reviewed for this EIR to determine which species have been observed in the Project area (refer to Table 4.8-1).

Thresholds of Significance

For purposes of this EIR, a significant impact is assumed to occur if development proposed in the SVSP would do any of the following:

- *Conflict with the provisions of an adopted Habitat Conservation Plan, natural Conservation Community Plan, or other approved local regional, or state habitat conservation plan*
- *Have a substantial adverse effect, either directly through habitat modifications or indirectly, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by CDFG or USFWS*
- *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological modification, 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 polices or ordinance protecting biological resources such as a tree preservation ordinance*
- *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*
- *Substantially reduce the number or restrict the range of an endangered, rare, or threatened species.*

Notably, the significance thresholds quoted above addressing impacts to "wetlands" apply only to "federally protected wetlands as defined by Section 404 of the Clean Water Act." These criteria are based on 1998 amendments to Appendix G of the CEQA Guidelines, which focused on federally regulated wetlands. Since 1998, the extent of federal jurisdiction over wetlands has been the subject of two decisions of the United States Supreme Court, which, in effect, have narrowed the jurisdiction of the Corps of Engineers compared with what the Corps assumed previously. In *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, (2001) 531 U.S. 159, the United States Supreme Court held that the "migratory bird rule" was not an adequate basis to regulate isolated waters under Section 404 of the CWA. In 2006, in *Rapanos v. United States* (2006)

126 S. Ct. 2208, the Supreme Court further attempted to clarify the Corps' jurisdiction. The test established in *Rapanos* is that, with respect to waters that are not isolated, only waters that possess a "significant nexus to waters that are navigable-in-fact" are subject to regulation under the Clean Water Act.

In contrast, the Roseville General Plan does not limit its protection of "wetlands" to those recognized as "waters of the United States." Indeed, the General Plan provides that "[f]or federally non-regulated wetlands, the City may require compensation or mitigation based on the value of the resource and reserves the right to consider not-in-kind compensation." To the extent feasible, mitigation under the General Plan shall seek to achieve "no net loss of wetland acreage, values or function, or habitat of comparable value is provided".

In light of these General Plan policies, the City has determined that an additional significance threshold dealing with "non-federal" wetlands is appropriate. Under this additional threshold of significance, impacts to biological resources could be considered significant if the project would:

- *Have a substantial adverse effect on non-federal wetlands through direct removal, filling, hydrological modification, or other means*.

IMPACT 4.8-1	LOSS OF FEDERALLY PROTECTED WETLANDS AND "OTHER WATERS" OF THE UNITED STATES	
Applicable Policies and Regulations	Section 404 and 401 of the Clean Water Act City/USFWS MOU City of Roseville General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-1(a) Ensure No Net Loss of Wetlands MM 4.8-1 (b) Wetland Avoidance/ Mitigation Plan	WMM 4.7-2 Wetland Protection Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Jurisdictional wetland delineations have been completed for all of the parcels in the SVSP area and the USACE verified the delineations. A total of 36.49 acres of wetlands or "other waters" of the U.S. have been identified in the SVSP area. These wetlands consist of several types of wetlands as shown in Tables 4.8-2, 4.8-3 and 4.8-4 (including habitat for fairy shrimp and non-fairy shrimp habitat). All wetlands identified in the SVSP area were determined to be jurisdictional. No non-jurisdictional wetlands are present.

TABLE 4.8-2
DIRECT IMPACTS TO WATERS OF THE UNITED STATES
IN THE SVSP PROJECT AREA
Non-Shrimp Habitat

Wetland Type	Total Impacts[4]	Total Preserved[5]	Total Existing
Ephemeral Stream	0.03375	0.034	0.0204
Intermittent Stream	0.5597	2.6997	3.2593
Perennial Stream	0.9455	3.1992	3.9369
Pond	1.045	1.0220	2.0670
Perennial Marsh	0.8887	0.106	0.8588
Seasonal Wetland	4.7653	1.7386	6.1743
Wetland Swale	10.1257	1.8712	10.8653
Vernal Pool	6.8913	3.1932	9.3075
Total Non-Shrimp Habitat	**25.5587**	**13.7379**	**36.4895**

[4] Total impacts include both on- and off-site impacts

[5] It should be noted that total preserved and total existing are on-site totals and do not include offsite impact.

TABLE 4.8-3
DIRECT IMPACTS TO WATERS OF THE UNITED STATES
IN THE SVSP PROJECT AREA
Shrimp-Habitat[6]

Wetland Type[7]	Total Impacts
Seasonal Wetland	2.2780
Vernal Pool	0.5855
Wetland Swale[8]	3.2568
Total	**2.9507**

TABLE 4.8-4
TOTAL DIRECT IMPACTS TO WATERS OF THE UNITED STATES
IN THE SVSP PROJECT AREA

Wetland Type	Total Impacts[9]	Total Preserved[10]	Project Area Total
Total all wetlands	**25.5587**	**13.7379**	**36.4895**

Source: North Fork Associates, Gibson & Skordal, and ECORP, 2010.

Wetlands on site are not of a high quality, and are scattered throughout the SVSP area. No portion of the SVSP area contains a concentration of high quality vernal pools. The open space preservation areas proposed in the SVSP area are aligned along drainage courses and include moderate concentrations of both vernal pools and seasonal wetlands located in proximity to these drainage courses. Implementation of the SVSP is anticipated to result in the total loss of approximately 25

[6] These impacts are a subset of the impacts listed in Table 4.8-2

[7] Suitable habitat within occupied watersheds

[8] This total includes those portions of wetland swales that are depressional and pond water.

[9] The total impacts include both on- and off-site impacts.

[10] The total preserved and total existing are onsite totals and do not include offsite impacts.

acres of wetlands and "other waters" of the U.S. Approximately 13.74 acres would be preserved as part of the SVSP.

Figure 4.8-2 –*Offsite Mitigation Wetland Preserve Areas*, identifies the sites that are proposed for use for off-site preservation and restoration. These sites include the Toad Hill Ranch Mitigation Bank, Western Placer Schools Mitigation Site, and a portion of Koshman Ranch. The applicants have indicated that other approved mitigation/conservation banks may be used to satisfy a portion of the off-site mitigation. While other banks have not been identified, these banks would be approved by the Corps and USFWS, and the project would have to be within the banks' approved service area.

Approximately 13.74 acres would be preserved as part of the Project, within areas designated as open space, while wetlands in other areas are assumed to be filled by development of the project. Loss of wetlands would occur as a result of grading in preparation for development, construction of roads and utility corridors, creation of storm water detention basins along stream corridors, and other ground-disturbing activities related to construction. Impacts would also result from construction of Westside Drive from the SVSP north through the Urban Reserve to the WRSP. This impact would be considered **significant**.

Mitigation is proposed to reduce the impacts to vernal pool habitat. The mitigation proposed in Table 4.8-6 are typical minimum requirements of the USACE and USFWS. Further, MM 4.8-1 requires vernal pool restoration to be completed in accordance with current USACE and USFWS guidelines and City General Plan policies requiring no net loss of wetland functions, habitat and values. MM 4.8-1 (b) requires a Wetland Avoidance/Mitigation Plan. This mitigation also covers the impacts caused by extending Westside Drive through the Urban Reserve area as part of the SVSP. The proposed mitigation would reduce impacts to a **less than significant** level.

TABLE 4.8-5

SUMMARY OF MINIMUM MITIGATION REQUIRED

Habitat Type	Location	Direct Impact	Indirect Impact	Preservation @2:1	Restoration @ 1:1	Creation @ 1:1
Non-Fairy Shrimp	On-and off-site	22.3019	0	0	0	22.3019
Fairy Shrimp	On-and off-site	3.2568	1.3260	9.1656	3.2568	0.00
Grand Total		**25.5587**	**1.3260**	**9.1656**	**3.2568**	**22.3019**

TABLE 4.8-6

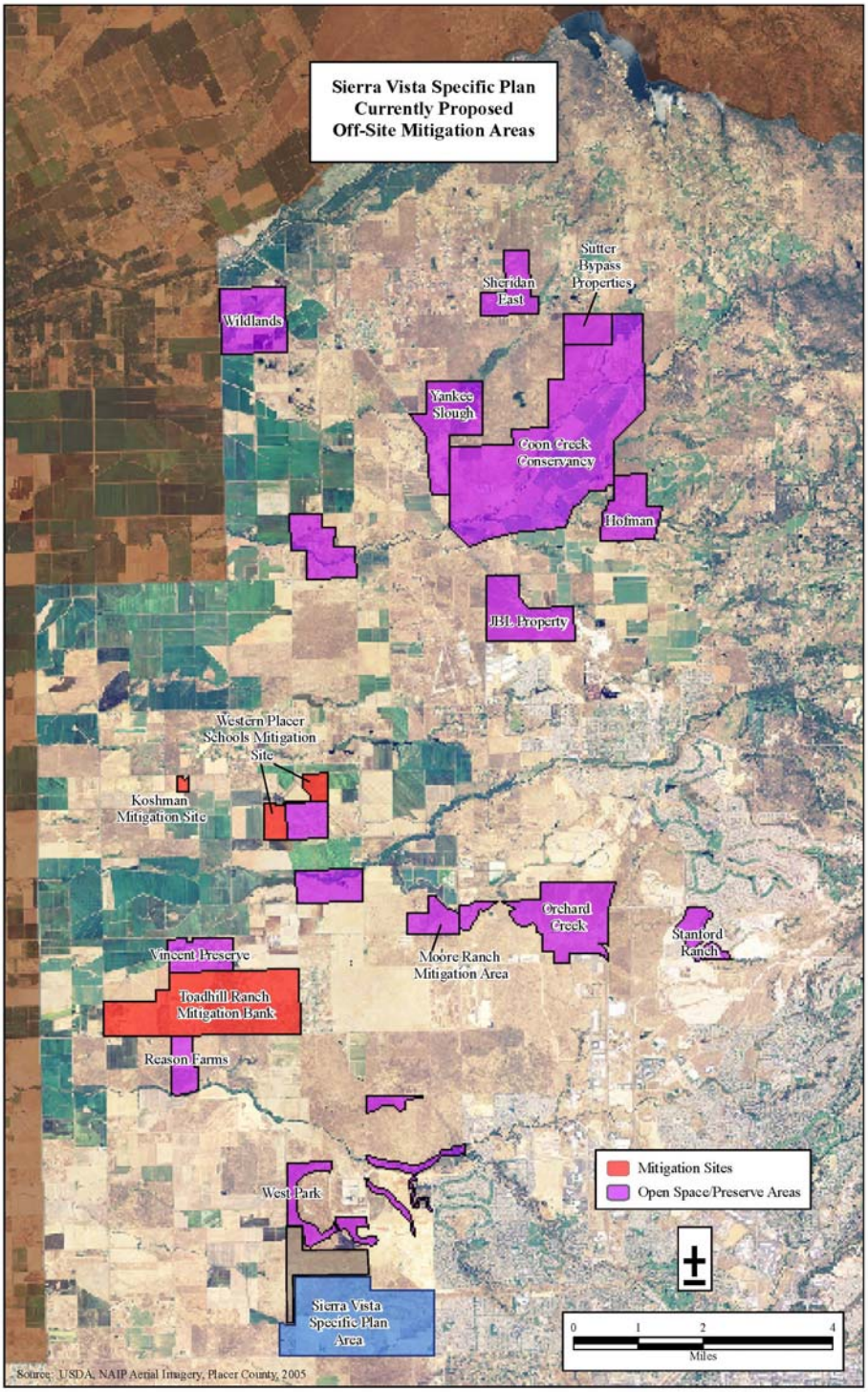
SUMMARY OF MINIMUM MITIGATION ACRES PROPOSED

On-site Preservation	Off-site Preservation	Preservation Total	On-site Creation	Off-site Restoration	Creation/Restoration Total
0.843	8.3226	9.1656	45.5	3.2568	48.7568

The overall proposed restoration/creation mitigation would be at a ratio of 2:1 which meets or exceeds the City of Roseville standards for no net loss. The goal of the SVSP conservation strategy is to achieve no net loss of wetlands through a combination of onsite avoidance and preservation, onsite enhancement and creation of wetlands, offsite acquisition and preservation of existing vernal pool complexes, and purchase of vernal pool credits at an agency approved mitigation bank. These wetlands, both onsite and offsite, would be preserved and managed in perpetuity to provide for the long-term viability of the protected wetlands. The project applicants have identified several offsite mitigation areas as shown in Figure 4.8-2, which are located in Placer County.

FIGURE 4.8-3

OFFSITE WETLAND PRESERVE AREAS



The components that make up the wetland mitigation package include:

Onsite Preservation: The 0.843 acres of on-site preservation includes all preserved vernal pools and depressional seasonal wetlands within occupied vernal pool shrimp watersheds that will be located more than 250 feet from the edge of development. It does not include preserved vernal pools and seasonal wetlands in non-occupied watersheds or preserved vernal pools and seasonal wetlands in occupied watersheds that will be within 250 feet of the edge of development.

Offsite Preservation: The 8.3226 acres of off-site preservation will consist of vernal pools and depressional seasonal wetlands preservation credits purchased from approved mitigation banks and/or preserved vernal pools and depressional seasonal wetlands located on a portion of Koshman Ranch.

Onsite Creation: The 45.5 acres of on-site creation will consist of a diverse mix of seasonal wetlands and emergent marsh constructed within the preserved open space corridors.

Offsite Restoration: The 3.26 acres of off-site restoration will consist of constructed vernal pool and depressional seasonal wetland restoration credits purchased from approved mitigation banks and vernal pools and depressional seasonal wetlands constructed on a portion of Koshman Ranch.

Because the USACE has a no-net loss policy for wetlands subject to its jurisdiction, satisfaction of the "no net loss" performance standard in MM 4.8-1 (a) can be achieved through the 404 permit process. The Section 404 Individual Permit Application has been submitted by the SVSP applicants to the USACE for review. The basic premise of the 404 permit program is that no discharge of material can be permitted into the waters of the U.S. if a practicable alternative exists that is less damaging to the aquatic environment, or if the nation's waters would be significantly degraded. Therefore, Applicants for Section 404 permits must show that they have:

- Taken steps to avoid wetland impacts where practicable
- Minimize potential impacts to wetlands
- Provide compensation for any remaining unavoidable impacts through activities to restore or create wetlands.

Regulated activities discharges are controlled by a 404 permit review process, which includes a period designated for public and agency comments. An individual permit is required for those projects that would not meet the terms and conditions of nationwide or other general permits and/or would have more than minimal impacts on the environment. This application includes an analysis of impacts on wetlands and provides a detailed mitigation and monitoring plan for the SVSP. As described in the application, the SVSP has been designed to incorporate habitat preservation.

Under the USACE mitigation policy, restoration of wetland habitats is normally preferred over wetland creation. This approach is consistent with the City/USFWS MOU. The USACE will determine whether the adequacy of the proposed wetland mitigation, and require modification of the mitigation plan if it is deemed inadequate. The applicants must obtain a 404 permit prior to discharging any dredged or fill material into any waters of the U.S. Because the 404 permit would ensure no net loss of wetlands it would reduce impacts to a **less than significant** level.

URBAN RESERVE

Approximately 13.86 acres of wetlands are present within Urban Reserve based on previous wetland delineations and as summarized in the Biological Resources Assessment. Development of the Urban Reserve would likely impact wetlands at levels similar to the SVSP. Future development in this area would cause further losses to wetland resources as a result of grading and other ground disturbance related to development of the property. This impact is considered **significant**.

Previously adopted WMM 4.7-2, identified in the WRSP EIR, would continue to apply to the Urban Reserve are and requires that specific plans or development plans in the Urban Reserve be delineated through a jurisdictional delineation of wetlands and "other waters" of the U.S. submitted for USACE review, and that mitigation plans provide for no net loss of wetlands. Avoidance could be accomplished through onsite avoidance, onsite wetland construction, offsite wetland construction, offsite wetland restoration or offsite acquisition where approved by the permitting agencies. This would reduce the impact to a **less than significant** level.

IMPACT 4.8-2	LOSS OF FEDERALLY LISTED VERNAL POOL CRUSTACEANS AND THEIR HABITAT	
Applicable Policies and Regulations	Federal Endangered Species Act City/USFWS MOU General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-1 (a) No Net Loss of Wetlands; MM 4.8-1 (b) Wetland Avoidance/Mitigation Plan MM 4.8-4 Offsite Preservation of Grassland	WMM 4.7-2 Wetland Protection Policies, and WMM 4.7-3 Vernal Pool Crustacean Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Suitable habitat for vernal pool crustaceans such as vernal pool fairy shrimp, and vernal pool tadpole shrimp, is present in the SVSP area. Vernal pool fairy shrimp have been observed within the project area. Loss of wetland habitat would occur as a result of grading and other ground disturbing activities related to the development of the project area. As shown in Table 4.8-3, 3.373 acres of vernal pool crustacean habitat would be impacted by the project. Potential impacts to avoided vernal pool habitat include possible disturbance resulting from passive recreation, changes to hydrological conditions or erosion of adjacent uplands that could result in the deposition of sediment within the wetlands. Additionally, after project construction, vernal pool habitat that avoided could be subject to further indirect impacts resulting from urban runoff, increased human access (i.e., proximity to development, trails, etc.), vandalism or other human disturbances, and an increase in exotic weed species. Maintenance activities such as fire break maintenance, weed abatement, and construction and maintenance of trails and utilities, could also degrade habitat.

For purposes of this analysis, it was assumed that vernal pools and depressional seasonal wetlands that are within occupied watersheds and located within 250 feet of development and/or construction activities could be indirectly impacted.

Direct loss of habitat for vernal pool crustaceans federally listed as threatened or endangered and indirect degradation of this habitat is considered to be a **significant impact**.

Mitigation is proposed to reduce the impacts to vernal pool habitat as shown in Table 4.8-6 and discussed above. Further, MM 4.8-1 requires vernal pool restoration to be completed in accordance with the "no net loss" performance standard required by MM 4.8-1 (a), current USACE and USFWS guidelines, and City General Plan Policy as set forth in the Wetland Mitigation Guidelines. MM 4.8-1 (b) requires a Wetland Avoidance/Mitigation Plan. Furthe, MM 4.8-4 Offsite and On-site Preservation of Grassland Habitat will ensure 1,026 acres of grassland is preserved which would provide wetland protection. The proposed mitigation would reduce impacts to a **less than significant** level.

URBAN RESERVE

Vernal pool habitat and vernal pool fairy shrimp are known to occur within the Urban Reserve area. As part of the Project area surveys, the Richland parcels were surveyed and vernal pool fairy shrimp where observed. Development of the Urban Reserve would result in take of potential vernal pool crustacean habitat as well as degradation of habitat due to ongoing maintenance activities, urban runoff, erosion, human and domestic animal access, and introduction of nonnative invasive plants. This would be a **significant** impact.

Previously adopted WMM 4.7-3, identified in the WRSP EIR, would continue to apply to the Urban Reserve area and requires wetland delineations. Previously adopted WMM 4.7-2 also would continue to apply, and would ensure no net loss of habitat by using generally acceptable mitigation ratios and practices for loss of vernal pool crustacean habitat. These mitigation measures would reduce impacts on vernal pool crustacean species to a **less than significant** level.

IMPACT 4.8-3	LOSS OF RARE PLANT POPULATIONS	
Applicable Policies and Regulations	Federal Endangered Species Act California Endangered Species Act Native Plant Protection Act General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-1 No Net Loss of Wetlands; MM 4.8-1 (b) Wetland Avoidance/Mitigation Plan	WMM 4.7-2 Wetland Protection Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

The project area contains 10.6 acres of vernal pool habitat. Vernal pools represent potential habitat for dwarf dowingia, legenere, and other special status plants (see Tables 4.8-2 and 4.8-3). Surveys for special status plants were conducted by ECORP in 2006. The floristic surveys were done at the appropriate time of the year, according to the guidelines issued by CDFG and USFWS. ECORP mapped 0.29 acres of vernal pools supporting dwarf downingia in the project area. At present dwarf dowingia is the only special status plant species known to occur within the project area. It is not state or federally listed, but is on the CNPS List 2.2.

Potential habitat for other special status species, including Bogg's Lake hedge hyssop, slender orcutt grass, Sacramento orcutt grass, and Sanford's arrowhead, and upland species such as big-scale balsamroot is present within the project area. Although focused special status plant surveys were conducted during the bloom period for these species, none of these species were observed in the SVSP area.

Impacts to special status plant species could result from grading and other ground disturbing activities related to development of the SVSP. Implementation of the SVSP is anticipated to result in the direct loss of approximately 7 acres of vernal pool wetlands. Additionally, indirect impacts could occur to vernal pools that would remain as part of the project by changes to hydrological conditions that result from grading or other topographic changes such that precipitation runoff supplies are interrupted and prevent the pools from filling properly, or erosion of adjacent uplands causes siltation of the pools. Loss of special status plants would be considered a **significant impact**.

Compliance with FESA would reduce impacts associated with the loss of federally listed vernal pool crustaceans and their habitat, and the loss and degradation of rare plant populations, by requiring any project that would result in the take of any federally listed threatened or endangered species to obtain authorization from the USFWS. Protection, preservation, and replacement of special status plants can be achieved through implementation of MM 4.8-1 No Net Loss of Wetlands, (consistent with both federal law and City General Plan policies) and MM 4.8-1 (b) Wetland Avoidance/Mitigation Plan. Special status plants would receive protection through the preservation, enhancement, or restoration and protection of potential habitat for these species. Additionally, this type of restoration effort is required to contain success criteria acceptable to and monitored by the USFWS, as well as the drafting of and compliance with a formal restoration plan. Implementation of MM 4.8-1 would reduce this impact to a **less than significant** level.

URBAN RESERVE

The Urban Reserve contains vernal pools and therefore it is likely that rare plants are present within the area, similar to the SVSP. Loss of special status plant species due to grading or other ground disturbing activities would be considered a **significant** impact.

WMM 4.7-2 requires that surveys for special status plants be conducted prior to development in the Urban Reserve. If no special status plants are determined to be present, then no further mitigation would be required. However, if special status plants are determined to be present in the area, then the project applicant shall ensure that no net loss of special status plant species will occur. This measure, in addition to compliance with the FESA would reduce the impact to plants to a **less than significant** level.

IMPACT 4.8-4	LOSS OR DEGRADATION OF HABITAT FOR WESTERN SPADEFOOT	
Applicable Policies and Regulations	Federal Endangered Species Act State Endangered Species Act California Fish and Game Code	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-1 (a) No Net Loss of Wetlands; MM 4.8-2 Relocate Western Spadefoots; MM 4.8-4 Off-site and On-site Preservation of Grassland Habitat	WMM 4.7-5 Spadefoot Protection Policies and WMM 4.7-2 Relocate Western Spadefoots
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Western Spadefoot

Within the SVSP area, potential habitat for the western spadefoot includes vernal pools, seasonal wetlands, and adjacent grassland habitat. Impacts on this species would occur as a result of the loss of vernal pools, seasonal wetlands and grassland habitat due to grading or other ground disturbance related to development of the SVSP. This species is a state and federal species of concern, and is fully protected pursuant to the California Fish and Game Code.

Although the species was not observed on site during surveys, there is a potential that it is present on site. Spadefoots have been detected in the past in the vicinity of the project area.[11] Further, because of the dry conditions over the last three-years, pools may not have been sufficiently inundated for spadefoot breeding, which would limit the ability to detect larvae during invertebrate

[11] West Roseville Specific Plan FEIR, 2004.

surveys. The SVSP supports suitable habitat for this species. Development on vernal pools, seasonal wetlands, and the adjacent habitat could result in the destruction of individual western spadefoot and/or its habitat. This would be considered a **significant** impact.

Compliance with FESA would reduce impacts associated with the loss or degradation of habitat for western spadefoot by requiring any project that would result in the take of any federally listed species to obtain authorization from the USFWS. Mitigation for vernal pools and mitigation for grassland which provide upland habitat would also provide mitigation for spadefoots.

Although suitable habitat exists within the SVSP, no standardized survey protocol for this species exists. Prior to earth moving, measures would be implemented to capture any adult or larval western spadefoots, or western spadefoot egg masses, and relocate them to suitable habitat. MM 4.8-2 would greatly enhance the survival rates of western spadefoots that are displaced during construction by relocating them to protected areas of suitable habitat.

Additionally, implementation of MM 4.8-1 (a), which requires preservation and protection of existing vernal pools, would protect individual western spadefoots by avoiding impacts on areas that are designated open space. Construction of wetlands on-site within the open space corridors will result in the creation of approximately 45 acres of suitable habitat for spadefoot. Ensuring no net loss of wetlands would provide protection of potential habitat for western spadefoot by preserving or enhancing and protecting habitat that is capable of supporting this species. Further, implementation of MM 4.8-4, preservation of grassland habitat, described below, would ensure that over 1,300 acres of grassland habitat are preserved as part of the project, which would mitigate potential impacts to this species.

URBAN RESERVE

Potential habitat for western spadefoot also occurs in the Urban Reserve area. Future development would likely result in further impacts on this species, including the loss of vernal pools, seasonal wetlands and the adjacent grassland habitat due to grading or other ground disturbance, which would be a **significant** impact.

Previously adopted WMM 4.7-5, identified in the WRSP EIR, would continue to apply to the Urban Reserve area and requires that the location of pools which are occupied by western spadefoot be

identified by a qualified biologist through surveys conducted during the appropriate season, and the subsequent formulation of a CDFG approved relocation plan if avoidance of occupied habitat is not possible.

In addition, preservation and protection of existing vernal pools, as required by previously adopted WMM 4.7-2, would protect individual western spadefoots by avoiding impacts on existing populations in areas that are designated as open space. Additionally, ensuring no net loss of wetlands would provide protection for potential habitat for western spadefoot by preserving or enhancing and protecting potential habitat that is capable of supporting this species. Implementation of the above mitigation measures, as well as compliance with FESA and CESA, would reduce this impact to level that is **less than significant**.

IMPACT 4.8-5	LOSS OR DEGRADATION OF HABITAT FOR RED-LEGGED FROG, CALIFORNIA TIGER SALAMANDER, AND WESTERN POND TURTLE	
Applicable Policies and Regulations	Federal Endangered Species Act State Endangered Species Act California Endangered Species Act	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

California Tiger Salamander

The vernal pool/grassland habitat within the Project area is considered suitable habitat for California tiger salamander. However, there are no known tiger salamanders in Placer County.

Surveys for vernal pool crustaceans in 2007 did not detect the presence of salamanders within the Project area. Therefore, impacts to tiger salamanders are considered **less than significant**.

Red-Legged Frog

There are no recent records of red-legged frogs in Placer County, and the nearest known record is approximately 50-miles from the project area (Michigan Bluff). While Curry Creek contains the basic habitat elements, it is considered only marginally suitable habitat due to variable water flows, the extent of urbanization in the vicinity of the project site, historic and current disturbances to the creek from farming and ranching practices, and the presence of large populations of bullfrogs. Curry Creek also has no connectivity with other drainages that are known or have potential to support California red-legged frog. Therefore, impacts to red-legged frogs are considered **less than significant**.

Western Pond Turtle

No pond turtles were found during surveys, and Curry Creek and the stock ponds are considered marginal habitat. The project will not have a substantial adverse effect through habitat modification because Curry Creek will remain as open space as part of the project. Further, land immediately adjacent to Curry Creek will be modified to increase in-stream wetlands for stormwater detention and habitat enhancement. At the completion of the project, the SVSP will provide additional habitat for the turtle, should they occur in the area. Therefore, impacts from the project are considered **less than significant.**

URBAN RESERVE

Potentially suitable habitat for the salamander exists within the Urban Reserve Area. However, no western pond turtle habitat or red-legged frog habitat is found in the Urban Reserve. The vernal pool/grassland habitat within the project area is considered suitable habitat for California tiger salamander. However, there are no known tiger salamanders in Placer County. Therefore, impacts to tiger salamanders are considered **less than significant**.

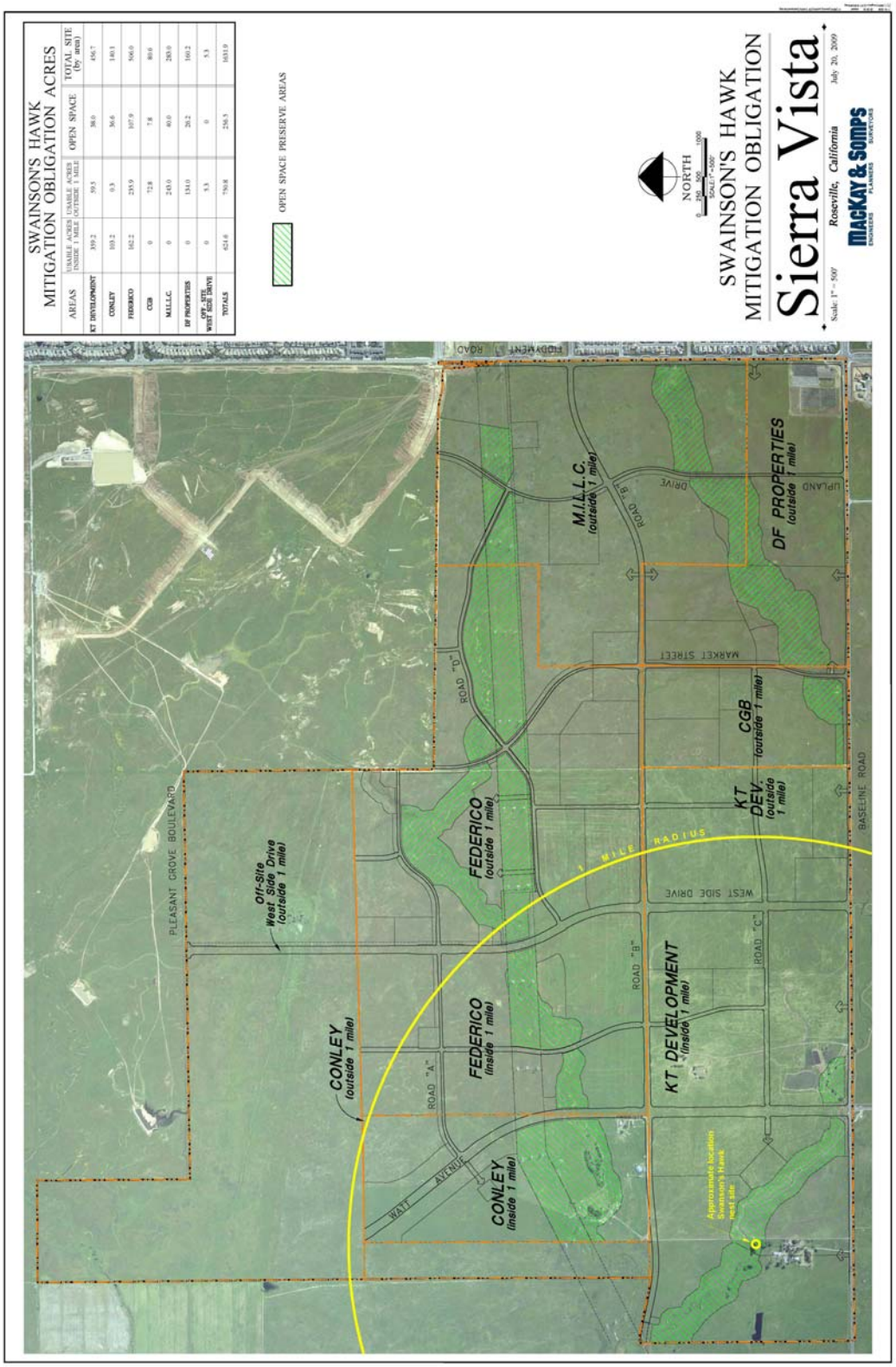
IMPACT 4.8-6	DISRUPTION OF SWAINSON'S HAWK, BURROWING OWL, AND OTHER LEGALLY PROTECTED RAPTORS NESTING AND FORAGING HABITAT	
Applicable Policies and Regulations	Federal Endangered Species Act California Fish and Game Code Migratory Bird Treaty Act	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-3 Avoid Nesting Sites MM 4.8-4 Preservation of Offsite Grasslands	WMM 4.7-7 Nest Protection Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Grassland and trees within the project area provide suitable foraging habitat and nesting sites for legally protected raptor species including; Swainson's hawk, burrowing owl, Cooper's hawk, white-tailed kite, northern harrier, and ferruginous hawk, among others. Disturbance resulting in active nest abandonment or removal of an active nest or otherwise injuring, pursuing, or killing a protected raptor is prohibited under the Federal Migratory Bird Treaty Act, the California Endangered Species Act, and/or the California Fish and Game Code. Special status species surveys in the SVSP (2006-2009) documented the presence of several legally protected raptor species, including: Swainson's hawk, burrowing owl, white-tailed kite, and northern harrier.

A Swainson's hawk nest was observed in the southwestern corner of the project area (see Figure 4.8-3). Development of the project would eliminate approximately 1,300 acres of

FIGURE 4.8-4 SWAINSON HAWK NEST RADIUS



grassland foraging habitat.[12] CDFG recommends that projects that result in the loss of potential habitat for Swainson's hawk (which includes grasslands) within 10-miles of an active nest site provide mitigation for that loss. Figure 4.8-3 shows mitigation ratios for the project based on distance within the project from the nest location. Mitigation for Swainson's Hawk would be provided by implementation of Mitigation 4.8-4, which requires mitigation for loss of grassland habitat.

A possible white-tailed kite nest was observed in the eastern segment of the Project area.

Several adult northern harriers were observed foraging in the Project area during the survey. The cattails on the eastern side of Curry Creek provide suitable nesting habitat for this species.

Four red-tailed hawk nests were observed within the Project area and nearby. While this species is relatively common throughout its range, disturbances and habitat loss could cause permanent nest abandonment that could affect a portion of the local population.

While few ground squirrel burrows are present, the entire Project area is otherwise considered suitable for burrowing owls, and may be occasionally used for foraging.

Tri-colored black birds while not observed onsite, could potentially nest in the marsh adjacent to Fiddyment Road.

No heron rookeries are present within the plan area. Prior to earthmoving that would disturb marsh habitat or tree removal of the eucalyptus grove, pre-construction surveys should be conducted to verify that no rookeries have been established.

Construction disturbance as part of the SVSP, resulting in active nest abandonment, removal of an active nest, or otherwise injuring a raptor would be a **significant impact**.

Compliance with the Migratory Bird Treaty Act and CESA would reduce impacts by prohibiting the take of any migratory bird listed, including nests, eggs or products, or the removal of any pertinent shrub or tree that could affect nesting.

---

12 Project area minus the wetland habitat, Urban Reserve area, and preserved open space equals approximately 1,300 acres.

To ensure that legally protected birds-of-prey are not taken during project construction, MM 4.8-3 requires that, when feasible, tree removals or excavation near potential burrowing owl burrows occur during the period when these species are not nesting (September through February). If removal of trees or excavation near potential burrowing owl burrows during the nesting season is unavoidable, pre-construction raptor surveys shall be conducted to determine whether or not legally protected raptor nests are present. In the event that nests are present, construction will cease within the vicinity of the nest and appropriate protocols shall be followed in consultation with CDFG during the removal and relocations of those nests.

Compliance with the MBTA and CESA (for Swainson's Hawks), as well as implementation of MM 4.8-3 would reduce impacts on the nesting raptors to a **less than significant** level by preventing disturbance that would cause nest abandonment and subsequent loss of their young. Further, MM 4.8-4, described below, requires onsite and offsite grassland preservation that also would reduce impacts to foraging habitat.

URBAN RESERVE

Suitable habitat for legally protected raptor species exists within the Urban Reserve area. Development of the Urban Reserve could eliminate over 400 acres of grassland habitat. Disturbance resulting in active nest abandonment, removal of an active nest, or otherwise injuring pursuing or harming raptors would be a **significant** impact. Compliance with the State Endangered Species Act, CDFG Code, and the Migratory Bird Treaty Act would be required. Previously adopted WMM 4.7-7, identified in the WRSP EIR, would continue to apply to the Urban Reserve area and requires that surveys for special status and other legally protected raptors be conducted, and if special status or other legally protected raptors are determined to have active nests in the area, then a mitigation program that incorporates the protective measures set forth in previously adopted WMM 4.7-7 must be developed in consultation with CDFG. Implementation of WMM 4.7-7 would reduce impacts on the nesting raptors to a **less than significant** level.

IMPACT 4.8-7	LOSS OF GRASSLAND HABITAT	
Applicable Policies and Regulations	None Identified	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-4 On-site and Off-site Preservation of Grassland Habitat	WMM 4.7-9 Swainson's Hawk Habitat Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Annual grassland exists throughout the Project area. Grassland is important for foraging for special status and other legal protected raptors, including Swainson's hawk and a wider variety of other wildlife species such as burrowing owls and long-billed curlew. CDFG considers the loss of foraging habitat for Swainson's hawk within 10 miles of an active Swainson's hawk nest site to be detrimental to the breeding success of this species. This habitat is also used by a number of other bird species such as red-tailed hawk, white-tailed kite, loggerhead shrike, and a wide variety of other wildlife species.

Implementation of the SVSP would result in the loss of an estimated 1,300 acres of grassland foraging habitat through grading and conversion to various urban uses. Due to the potential negative effects that loss of foraging habitat could have on wildlife species, this impact would be considered **significant**.

Implementation of MM 4.8-4 would ensure that impacts from loss of grassland are reduced by protecting a quantity of similar habitat in southwestern Placer County in perpetuity, as specified according to a CDFG-established mitigation formula for loss of Swainson's hawk foraging habitat,

and by ensuring that on-site preserved grasslands are managed as raptor and migratory bird foraging habitat.

URBAN RESERVE

Approximately 437 acres of grassland habitat are present in the Urban Reserve area. Most of the Swainson's hawk foraging habitat is over one mile away from the nest identified within the southwest portion of the SVSP area. Loss of this habitat would be a **significant** impact. However, similar to the SVSP, compliance with CESA would be required, which would reduce impacts to grasslands. In addition, previously adopted WMM 4.7-9, identified in the WRSP EIR, would continue to apply to the Urban Reserve area and would reduce the severity of this impact to a level that is **less than significant** by providing protection for similar habitat in perpetuity.

IMPACT 4.8-8	**SUBSTANTIAL INTERFERENCE WITH THE MOVEMENT OF RESIDENT AND MIGRATORY WILDLIFE SPECIES**	
Applicable Policies and Regulations	Section 1600 of the California Fish and Game Code City Floodplain Development Regulations City Improvement Standards NPDES Requirements	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-5 Wildlife Movement Protection Policies; MM 4.14-3 Avoid Light-Spillover	WMM 4.7-11 Stream Protection Policies; MM 4.14-3 Avoid Light Spill Over; WMM 4.7-13 (d) Riparian Habitat Policies
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by changes in vegetation or human disturbance. The fragmentation of open space areas by urbanization creates isolated islands of wildlife habitat. In the absence of habitat linkages that allow movement to

adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time because fragmentation prohibits the infusion of new individuals and genetic information. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events, and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, and other needs.

Wildlife movement activities generally fall into one of three movement categories: (1) dispersal (e.g., of juvenile animals from natal areas or individuals extending range distributions, (2) seasonal migration, and (3) movement related to home range activities (foraging for food or water, defending territories, or searching for mates, breeding areas, or cover).

Development of the SVSP area could impede the movement of wildlife by disturbing and/or blocking local movement corridors. Additionally, many of those species that would normally use the grasslands as a foraging area would not as easily move across the future urbanized landscapes proposed for the sites. With development of the SVSP, wildlife would be naturally restricted to the remaining areas of designated open space such as the streams and the WAPA corridor. Thus, both Curry Creek and the WAPA transmission corridor could become wildlife corridors through the urbanized landscape. Construction of stream crossings and other activities, as well as the introduction of artificial light would alter the corridors and disturb the wildlife using them. The potential loss of local travel routes and the potential future restriction of movement through the site due to obstructions to the stream/riparian open space corridor are discussed below.

Wildlife species that are adapted to live in grasslands or that move between isolated pockets of water would not easily move across the future urbanized landscapes and would be displaced, and/or concentrate their movements within the remaining open space. The SVSP provides for an open space corridor along Curry Creek and the WAPA corridor which would allow relatively free access through the site. However, the construction of culverts and bridges and road crossings could create barriers that could prevent wildlife passage along these corridors.

Erosion and runoff during construction of these facilities would be controlled by best management practices as required by the City's Improvement Standards and NPDES General Permit. Nonetheless, alterations to the flow, bed, channel, or bank of any streams in the project area as a result of project improvements would affect the ability of the corridors to provide habitat for the wildlife species that depend upon them for feeding, cover, and nesting and thus could result in a loss of that habitat.

Outdoor lighting can also have a negative effect on wildlife by interfering with nocturnal movement and causing disorientation, making individuals more vulnerable to predation or making it more difficult for them to capture prey. Passive recreational use along nature or bicycle trails may also have indirect impacts such as interfering with foraging, breeding, or movement. These impacts would be considered **significant**.

The City's Floodplain Development Regulations, Improvement Standards and NPDES permit requirements would aid in reducing impacts associated with floodplains, stream channels, and natural protective barriers. Floodplain and the Curry Creek stream channel would remain as open space which would allow movement corridors to remain. Implementation of MM 4.8-5 would require the use of either bridges or culverts that are large enough that wildlife has enough space to pass through these road crossings without having to travel over the road surface. MM. 4.8-5 requires that the project applicant obtain a Section 1600 Streambed Alteration Agreement from CDFG prior to any construction activities that could affect stream corridors. Specific measures would be developed during discussions with CDFG, but may include using bridges instead of culverts, use of erosion control and bank stabilization measures, and restoration of stream corridor habitat that has been damaged due to the project's construction. In addition, MM 4.14-3 requires that outdoor lighting be placed, designed, and directed to avoid spillover light into the Curry Creek and open space preserve areas (refer to Section 4.14 *Aesthetics and Visual Resources* of this EIR for a detailed discussion). These measures would reduce this impact to a level that is **less than significant** through maintenance of a clear and non-artificially lighted corridor along Curry Creek and the WAPA corridor.

URBAN RESERVE

Stream corridors cross the Richland Urban Reserve parcel on the extreme northern boundary, and on the Chan parcel along its southern boundary. In addition, the WAPA corridor passes through the

southern boundary of the Chan parcel. These areas would provide potential wildlife corridors. Development of the Urban Reserve would potentially require additional stream crossings, and roadways through the WAPA corridor. Night lighting would also affect wildlife. These impacts would be considered **significant**.

Previously adopted WMM 4.7-11, identified in the WRSP EIR, would continue to apply to the Urban Reserve area and provides for the development of stream protection policies, primarily through the Section 1600 Streambed Alteration agreement process. Specific measures would be developed during discussions with CDFG, but may include bridges instead of culverts, use of erosion control and bank stabilization measures. In addition, previously adopted WMM 4.7-13 (d) would ensure that outdoor lighting does not spill over into creeks or open space preserves. These mitigation measures would reduce impacts to stream corridors and protect against alterations that affect their ability to provide habitat for migration, feeding, cover, and nesting. Therefore, with mitigation this impact would be **less than significant**.

IMPACT 4.8-9	LOSS OF OAK TREES OF GREATER THAN 6 INCHES IN DIAMETER	
Applicable Policies and Regulations	Tree Preservation chapter of the Roseville Zoning Ordinance	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	No Impact
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

There are few trees and no oak woodland habitat within the Project area. Six oak trees exist within the SVSP area boundaries; five interior live oak and one valley oak. Compliance with the City's Tree Preservation Chapter of the Zoning Ordinance will ensure that removal of the oaks would be adequately replaced. This impact is considered **less than significant**.

URBAN RESERVE

No oak trees are present within the Urban Reserve area. Therefore, the proposed project would have **no impact** on oak trees.

IMPACT 4.8-10	LOSS OF RIPARIAN HABITAT	
Applicable Policies and Regulations	Section 1600 of the California Fish and Game Code City Floodplain Development Regulations City Improvement Standards NPDES Requirements General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	No Impact
Mitigation Measures:	MM 4.8-5 Wildlife Movement Protection Policies; MM 4.14-3 Avoid Light Spillover	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

Implementation of the proposed project would result in development that would occur within the riparian habitat and stream corridors along Curry Creek and other drainages. Some portions of the project are entirely within or adjacent to the stream corridor. This proximity presents the possibility of direct and secondary effects to the habitat due to removal of riparian habitat and/or spillover of human intrusion. Proposed SVSP improvements include widening Baseline Road, which will include a bridges and/or culverts over the Curry Creek crossings; widening Fiddyment Road, which also will include bridges and/or culverts over the Curry Creek crossing; internal bridges for Watt Avenue and Road B over the drainages; and channel improvements as part of the drainage strategy and in-stream mitigation.

Deterioration of the creek channel could result from construction activities, intrusion of artificial lighting, non-native invasive plant species, domestic animals, or human activity (i.e., jogging, walking, and biking) in or along the creek channel. Trampling of stream banks could occur when people descend or climb the banks. Trampling of stream banks could occur when people descend or climb the banks. Increased trampling would remove vegetation directly or indirectly by causing soil compaction or erosion. Increased human recreational and residential uses could result in an increase in domestic animals, which could impact native wildlife by reducing habitat and by increasing wildlife mortality. These impacts could also occur during construction of the proposed project. This impact would be **significant**.

Implementation of Sections 1600-1607 of the Fish and Game Code would reduce impacts associated with the blocking or degradation of stream corridors by regulating activities that would alter the flow, bed, channel, or bank of streams. Additionally, implementation of Chapter 9.80 of the Municipal Code (Flood Damage Protection) would control the alteration of natural floodplains stream channels, and natural protective barriers, which help accommodate or channel flood waters. In addition, the City of Roseville's Improvement Standards and Floodplain Development Regulations would control fill, grading, dredging, and other development, which may increase flood damage.

MM 4.8-5 and MM 4.14-3 would reduce this impact to a **less than significant** level by requiring a minimum setback to be maintained in buffer zones along Curry Creek. Curry Creek will remain in open space, and the riparian habitat would be protected and enhanced with the proposed in-stream improvements included as part of the project (see section 2, Project Description and section 4.13 Hydrology. Further, the SVSP would be required to implement the recommendations of the hydrology technical report (Appendix O).

URBAN RESERVE

No riparian habitat is found in the Urban Reserve. Therefore, there is no impact.

IMPACT 4.8-11	LOSS OF BIOLOGICAL RESOURCES DUE TO CONSTRUCTION OF OFF-SITE INFRASTRUCTURE	
Applicable Policies and Regulations	Federal and California Endangered Species Act Section 404 and 401 of the Clean Water Act General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	Significant
Mitigation Measures:	MM 4.8-7 Off-site Surveys; MM 4.8-1 (a) No Net Loss; MM 4.8-1 (b) Wetland Avoidance/Mitigation Plan; MM 4.8-2 Relocate Western Spadefoots; MM 4.8-3 Avoid Nesting Sites; MM 4.8-4 Off-site and On-site Preservation of Grassland Habitat; MM 4.8-5 Wildlife Movement Protection Policies; MM 4.8-6 Habitat Restoration/Onsite Preservation	WMM 4.7-2 Wetland Protection Policies; WMM 4.7-3 Vernal Pool Crustacean Policies; WMM 4.7-5 Spadefoot Protection Policies; WMM 4.7-9 Swainson's hawk policies; WMM 4.7-11 Stream Protection Policies; WMM 4.7-15 Conduct appropriate Surveys
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Development of the SVSP would require infrastructure improvements outside of the SVSP area, such as extension of roadways (intersection improvements at Fiddyment and Baseline and Baseline and Watt Avenue); extension of water, wastewater, and recycled water infrastructure from the West Roseville Specific Plan area; water tank construction within the WRSP area; and the extension of electric and natural gas lines. Potential impacts from these activities include both direct and indirect impacts to:

- Special status species, including state and federally threatened endangered species

- Wetland and vernal pool habitat

Although no formal focused surveys or wetland delineation have been performed within the offsite improvement areas, as part of the Biological Resources Assessment, North Fork Associates determined that approximately 0.778 acres of waters of the United States would be impacted in the Urban Reserve area by the extension of Westside Drive to serve the SVSP through the Urban Reserve area. Most other offsite improvements would be constructed within street right of ways. Nonetheless offsite improvements would result in potentially **significant** biological impacts.

TABLE 4.8-7
DIRECT IMPACTS TO WATERS OF THE UNITED STATES
OFF-SITE AREAS

Wetland Type	Total Impacts
Ephemeral Stream	0.2737
Intermittent Stream	0.1535
Perennial Marsh	0.1374
Seasonal Wetland	1.0702
Wetland Swale	1.5730
Vernal Pool	0.7723
Total Habitat	**3.9801**

Additional offsite impacts would be from roadway and infrastructure improvements such as Baseline Road, Road "B", etc, that occur outside the Project area boundaries. The projected impacts of 3.98 acres, is conservative and includes improvements that have also been identified on the south side of Baseline Road that is also covered by the Placer Vineyards Specific Plan project. Depending on the timing, Placer Vineyards could complete those improvements. However, if SVSP moves forward first, the SVSP would be responsible for mitigating the impacts. Mitigation at ratios similar to that proposed by the SVSP and/or required by the Resource Agencies could require eight acres or more of mitigation offsite. Impacts and mitigation would be refined at the time specific improvements are proposed and as required by the 404 wetlands Permit.

MM 4.8-7 requires that surveys be conducted by qualified biologists prior to the construction of the offsite infrastructure facilities. The purpose of these surveys will be to determine the presence or absence of sensitive biological resources in the areas that would be disturbed. If such resources are discovered, then appropriate mitigation measures, as described in this document shall be extended to the offsite infrastructure areas as explained in MM 4.8-7 (MM 4.8-1 through 4.8-6). These measures will ensure that impacts on special status species or their habitat that occur within the offsite infrastructure areas would be reduced to a **less than significant** level.

URBAN RESERVE

Development of the Urban Reserve area would require infrastructure improvements outside of that area, such as extension of roadways; water, wastewater, and recycled water infrastructure; and electric and natural gas lines.

There is a potential that impacts from these off-site activities could have the following impacts:

There is a potential that impacts from these activities could have impacts:

- Special status species
- Wetland and vernal pool habitat
- Oak trees
- Stream and riparian habitat

Construction and installation of infrastructure could destroy special status species and/or degrade or destroy their habitat. This would be a **significant** impact.

WMM 4.7-15 requires that formal surveys be conducted by a qualified biologist prior to the construction of offsite infrastructure facilities. The purpose of these surveys would be to determine the presences or absence of sensitive biological resources in areas that will be disturbed. If such resources are discovered, then appropriate mitigation measures described throughout this section shall be extended to the offsite infrastructure areas (WMM 4.7-2, WM 4.7-3, WM 4.7-5, WMM 4.7-9, and WMM 4.7-11). These measures would ensure that impacts to special-status species or their habitat that occur within the offsite infrastructure areas would be reduced to a **less than significant**

level, by requiring appropriate surveys and measures, including appropriate permits for and protection of such resources, and no net loss of habitat.

IMPACT 4.8-12	CONFLICT WITH THE PROVISION OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL CONSERVATION COMMUNITY PLAN OR OTHER APPROVED CONSERVATION PLAN	
Applicable Policies and Regulations	Federal and California Endangered Species Act California Fish and Game Code City/USFWS MOU	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Conservation plans allow a cooperative effort between regulatory agencies, local agencies and private and public partners. The goal is to apply a broad-based ecosystem approach to planning for the protection of biological diversity in an effort to protect habitat and species. In California the program began in 1991 under the State's Natural Community Conservation Planning Act (NCCP) to protect individual species that have declined significantly. The primary objective of the NCCP program is to preserve natural communities while accommodating compatible land use. The federal equivalent to this program is the Habitat Conservation Plan or HCP. The HCP requirement resulted from 1982 amendments to FESA which provide that, as a condition to obtaining an "incidental take" permit (which allows the "take" of endangered species), the applicant must prepare a HCP that specifies, among other things, the actions the applicant will take to minimize and mitigate any adverse impacts to the species and available funding to implement these measures. The permit will be issued if the Secretary of Commerce or the Interior finds that the

impacts to the species have been minimized and mitigated to the "maximum extent practicable", that the anticipated take will not jeopardize the species' continued existence, and that funding will be sufficient to implement the HCP.

In May 2000, the City of Roseville and US Fish and Wildlife Service entered into an MOU to prepare a Habitat Conservation Plan (HCP) or equivalent. The purpose of the MOU is to minimize the indirect impact of incidental take of vernal pool species resulting from future City growth served by the Pleasant Grove Wastewater Treatment Plant (PGWWTP) that was then under construction. To accomplish this purpose, the MOU commits the City to development of an "interim conservation strategy" to address City development that would be served by Phase I of the treatment plant operation (12 million gallons per day) and an HCP or equivalent for future City development served by Phase II operations (expansion beyond the initial 12 million gallons per day). At the time the MOU was signed, the planning area was restricted to existing City boundaries. However, section 2.1 of the MOU recognizes that the City boundaries may change in the foreseeable future to include lands annexed through an agreement with Placer County, in which case those annexed areas are intend to be incorporated into the "planning area" covered by the City/County MOU.

As part of advancing the development of an interim strategy, consistent with the MOU, the City worked with USFWS to assess the status of remaining vernal pool resources within the City. This included several mapping efforts to identify current development trends and remaining vernal pool resources. The USFWS concurred that nearly all remaining undeveloped land containing vernal pools within the city limits had received federal permits for development through the Clean Water Act 404 process and therefore, preparation of an HCP or equivalent to address remaining development would not be necessary. The USFWS further determined that the conservation strategy could be developed and approved through the Section 7 consultation process in the context of permitting, pursuant to Section 404 of the Clean Water Act.

The City of Roseville is committed to developing a vernal pool conservation strategy that is consistent with the direction provided by the USFWS. This includes development of an Open Space Preserve Area and Overarching Management Plan that ties the existing City preserve system together under a broader more unified framework. It also includes a commitment to coordinate on-site avoidance and off-site mitigation strategies in a manner that would not prejudice or conflict

with the County's proposed larger scale conservation effort. The City of Roseville recently drafted a Preserve Area Overarching Management Plan that pulls all of the city's existing preserve areas under one umbrella program. Management, monitoring and reporting for on-site open space Preserve areas established as part of the SVSP would be conducted consistent with the City's new Preserve Area Overarching Management Plan.

Through the 404-permit process, the landowners and City have completed an early consultation process on the project with the USFWS, USACE and EPA. Over the course of two years, the City and the applicants met with the USACE, EPA, and USFWS over 14 times to discuss the project. A goal of USFWS was to ensure that the project did not preclude options for establishing a viable long-term preserve system. The USFWS stated in a letter to the City of Roseville dated June 1, 2009 (found in Appendix R of this document) that:

> "*The Service feels the process has been worthwhile in that we have had input into project design, specifically avoidance and minimization of natural resources, and off-site compensation lands to minimize the effects of the project on threatened and endangered species habitat*."

Furthermore, the USEPA stated in a letter dated June 9, 2009 (found in Appendix R of this document):

> "*I wanted to take this opportunity to express my thanks to the City of Roseville for taking a leadership role in coordinating with the EPA, USFWS, and USACE and other agencies concerning large development projects proposed in the City, including the Creekview and Sierra Vista Specific Plans. Coordination between local, state and federal governments is central to public service and we recognize the productive efforts the City has taken to ensure that the local planning process for new development project is consistent with federal permitting processes under the Clean Water Act.* "

Therefore, the City has complied with the spirit of the City/USFWS MOU and determined that the SVSP would have a **less than significant** impact regarding conflicts with a conservation plan.

URBAN RESERVE

Development of the Urban Reserve area would be required to comply with the City/USFWS MOU. Through the 404-permit process, future applicants would go through the Section 7 consultation process with USFWS. Any development would be required to prepare an O&M plan that would be folded into the City's Preserve Area Overarching Management Plan. Future development would be designed to complement the region's habitat conservation plan and, therefore, would have a **less than significant** impact with regard to potential conflicts with a conservation plan.

IMPACT 4.8-13	POTENTIAL IMPACTS TO THE CALIFORNIA BLACK RAIL	
Applicable Policies and Regulations	California Fish and Game Code City/USFWS MOU	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Significant	No Impact
Mitigation Measures:	MM 4.8-1 (a), No Net Loss of Wetlands; MM 4.8-3 Avoid Nesting Sites	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

There are no known occurrences of California black rail in the Project area or vicinity. The nearest reported occurrence is in Clover Valley, in Rocklin, approximately five miles east of the project site. Given the restricted range of the Rail and the limited amount of marsh habitat on the site, it is unlikely that this species occurs in the Project area. Specific surveys for black rail were not conducted as part of the Project area surveys, however. Therefore, the potential exists that the black rail could be present in the SVSP area. If black rails are present on the site, construction activities could impact this species. This would be considered a **significant impact**.

Pursuant to MM 4.8-3, prior to earth moving that would disturb marsh habitat, a qualified biologist shall conduct surveys to determine the presence of the California black rail. If this species is found,

all earth moving within 250 feet shall stop, and CDFG shall be consulted to solicit recommended measures, including establishing nest protection buffers along both sides of Curry Creek during the nesting season (generally February 1 through August 31st).

Additionally, implementation of MM 4.8-1(a) would ensure no net loss of wetlands and would provide protection of potential habitat by preserving or enhancing habitat that is capable of supporting this species. Therefore, MM 4.8-1 and 4.8-3 would reduce this impact to a **less than significant level.**

URBAN RESERVE

No marsh habitat is present in the Urban Reserve areas that would be expected to support black rails. This impact is considered **less than significant**.

IMPACT 4.8-14	POTENTIAL IMPACTS TO BATS	
Applicable Policies and Regulations	California Fish and Game Code City/USFWS MOU	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

SIERRA VISTA SPECIFIC PLAN

Three special status bats potentially occur in the project area: including pallid bat, Townsend's big-eared bat, and Yuma myotis, which are all state species of special concern. Pallid bat occurs primarily in shrubland, woodlands and forested habitats, but can also occur in grasslands. Townsend's bat occurs in a variety of woodland and open habitats, and the Yuma bat occurs primarily in forests and woodlands. All three species roost in mines, caves, large hollow trees, and occasionally in large open buildings that are usually abandoned or infrequently inhabited. While the project area may support suitable foraging habitat, there is very little habitat that would support roosting or maternity sites. The two historic ranch residences that may have provided

roosting habitat were previously removed. The three existing residences are unlikely to support roosting habitat for special status bats. There are no rocky areas, mines, caves, or other features that support roosts. Therefore, impacts to bats are considered **less than significant.**

URBAN RESERVE

While the project area may support suitable foraging habitat, there is very little habitat that would support roosting or maternity sites. No structures presently existing in the Urban Reserve area, and there are few trees. Further, there are no rocky areas, mines, caves, or other features that support roosts. This impact is considered **less than significant**.

IMPACT 4.8-15	POTENTIAL IMPACTS TO GIANT GARTER SNAKE	
Applicable Policies and Regulations	California Endangered Species Act California Fish and Game Code	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	No Impact
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

Giant garter snakes are not known to occur in the project vicinity. However, portions of Curry Creek support at least marginally suitable habitat for giant garter snake, a state and federally listed species. With the exception of road crossings, which would be subject to state and federal permit requirements, including federal ESA consultations to address potential impacts to giant garter snake, Curry Creek will be set aside as permanent open space as part of the project: and therefore, impacts to the snake are considered **less than significant**. It is expected that the Curry Creek corridor which will be over 400 feet in width, would provide sufficient habitat to support the giant garter snake, should it be present within the project area.

URBAN RESERVE

The Urban Reserve area contains no potential habitat for the giant garter snake. Therefore, there would be **no impact**.

IMPACT 4.8-16	IMPACTS TO FISH HABITAT	
Applicable Policies and Regulations	Federal and California Endangered Species Act General Plan Open Space and Conservation Element	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	No Impact
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

Anadromous fish species, such as Central Valley spring and winter-run Chinook salmon and steelhead, do not occur within Curry Creek. Curry Creek within the SVSP area is a very small intermittent drainage corridor. It is shallow and does not contain sufficient depths of water to support fish for most of the year. It historically has been dry during the summer months. Therefore, direct and indirect impacts on fish species are considered **less than significant**. The portion of Curry Creek located within the project area is expected to support only resident warm water fish species.

URBAN RESERVE

Only intermittent drainages are present within the Urban Reserve area. None support fish habitat. Therefore, development of the Urban Reserve would have a **no impact** on fish species.

IMPACT 4.8-17	IMPACTS TO BEAVERS	
Applicable Policies and Regulations	City of Roseville Beaver Policy	
	SVSP	**Urban Reserve**
Significance with Policies and Regulations	Less Than Significant	No Impact
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	No Impact

SIERRA VISTA SPECIFIC PLAN

The beaver is a widely distributed animal, which inhabits most of the U. S. They are found just about everywhere in the U.S. except southern California, most of Florida and Nevada, and parts of Alaska. While their numbers diminished in the late 1800's and early 1900's due to trapping, they have made a comeback over the years. Populations of beavers are known to occur throughout the Roseville area. They are not federally or state protected.

While beavers may be present in Curry Creek, construction of the project would be considered a **less than significant** impact. The project would not substantially reduce the habitat of the Beaver. Curry Creek will remain as open space as part of the project. Beavers are not a protected species, and the project would therefore, not significantly reduce a protected or threatened species as outlined in the significance thresholds above.

URBAN RESERVE

No beaver habitat is present in the Urban Reserve areas. Therefore, development of the Urban Reserve would have **no impact** on beavers.

4.8.5 MITIGATION MEASURES

The project area was included in the program-level analysis of the West Roseville Specific Plan Final EIR. Mitigation adopted by the City Council at time of approval in 2004 is still applicable to the project, especially to the Urban Reserve areas. The following includes the WRSP mitigation as "WMM" and provides ~~strikeout~~ to language that is being eliminated or underline to denote new language.

WMM 4.7-2 ***Wetland Protection Policies (Impacts 4.8-1, 4.8-2, 4.8-3, 4.8-11- Urban Reserve)***

Prior to the adoption of any Specific Plans and/or other development proposal for the ~~Remainder Area~~ Urban Reserve Area, wetland delineations shall be conducted, and, if wetlands are present, the project achieves no net loss of wetlands. As used here, "no net loss of wetlands" shall account for all wetlands impacted by the project, both directly (e.g., filled or drained) and indirectly (e.g., subjected to polluted and accelerated runoff, or damage caused by human or domestic animal access). No net loss could be achieved through on-site avoidance where practicable and desirable, on-site wetland construction where practicable and desirable, and/or off-site wetland construction, or off-site wetland restoration, and off-site acquisition where approved by the permitting agencies.

Where appropriate, the plans shall specify that special-status plant surveys be conducted for species that have a high probability to occur within areas of potential impacts (e.g., big-scale balsamroot and Hispid bird's beak), such that if found, no net loss of special-status plants occur, and that landowners use harvested inoculum (i.e., the top few inches of soil containing the seed bank and vernal pool crustacean cysts) from on-site vernal pools in constructed wetlands. Additionally, if wetland habitat would be impacted methods listed to ensure no net loss of wetlands, as detailed in W~~MM 4.7-1~~ MM 4.8-1 would be applicable and required.

WMM 4.7-3 ***Vernal Pool Crustacean Policies (Impact 4.8-2 and 4.8-11- Urban Reserve)***

Prior to the adoption of any Specific Plans and/or other development proposal for the ~~Remainder Area~~ Urban Reserve, a delineation of all potential vernal pool crustacean habitat and appropriate surveys shall be performed. Surveys shall follow the January 19, 1995 (or more recent version, if available) USFWS *Guidelines for Surveys of the Endangered Conservancy Fairy shrimp, Longhorn Fairy Shrimp, Riverside Fairy Shrimp, Vernal Pool Tadpole Shrimp, and the Threatened Vernal Pool Fairy Shrimp* to determine the extent of the potential habitat that is present in the proposed development area. For those areas of potential habitat that are determined not to be occupied by federally listed vernal pool crustaceans, no further mitigation would be required. If federally listed vernal pool crustaceans MM 4.8-1 shall be implemented. Alternatively, the project applicant may assume that all potential vernal pool crustacean habitat is occupied and implement MM 4.8-1. In implementing MM 4.8-1, it shall be demonstrated in the project-level environmental document that the mitigation strategy would ensure no net loss of vernal pool crustacean habitat.

WMM 4.7-5 ***Spadefoot Protection Policies (Impact 4.8-4 Urban Reserve)***

Prior to adoption of any specific plans and/or other development proposals for the ~~Remainder Area~~ Urban Reserve, CDFG approved protocol surveys shall be conducted, if necessary, to determine the presence or absence of pools occupied by western spadefoot. These surveys shall be conducted during the appropriate season (generally February), by a qualified biologist. If western spadefoot is found during the surveys, the Specific Plan and/or development plan shall provide a plan and/or policies to protect this species. The plan and/or policies shall provide for avoidance of those pools that are found to support western spadefoot wherever feasible. If avoidance is not feasible, then the CDFG shall be consulted to approve an adult or larval western spadefoot, or western spadefoot egg masses

capture and relocation plan. In addition, ~~WMM 4.7-2~~,MM 4.8-1, which would result in no net loss of wetlands, would assist in the preservation of vernal pool and seasonal wetland habitat that this species requires for breeding. This measure would ensure the survival of western spadefoots that are displaced from pools that are destroyed during construction by relocating them to suitable habitat.

WMM 4.7-9 ***Swainson's Hawk Habitat Policies (Impact 4.8-7 and 4.8-11- Urban Reserve)***

Prior to the adoption of any Specific Plans and/or other development proposals for the ~~Remainder Area~~ Urban Reserve, the applicant shall conduct additional environment review and implement measures to protect Swainson's hawk habitat at a ratio commensurate with the habitat area to be lost due to proposed development.

WMM 4.7-11 ***Stream Protection Policies (Impact 4.8-8 and 4.8-11 - Urban Reserve)***

To protect the sensitive habitat within the stream/drainage corridors, and its potential use by wildlife as movement corridors, activities would be prohibited within a buffer zone adjoining the stream area, a minimum of 50-feet from the active channel. Buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plans and animals on land and in the water. Any Specific Plans and/or other development proposals for the Remainder Area Urban Reserve that involve the alteration or development of areas within the 50 foot riparian buffer areas shall demonstrate how the stream corridors, and the wildlife that use them, will be protected from disturbance due to construction or obstruction (e.g., fill, culverts), passive recreation, or other activities that would otherwise restrict or prevent the unobstructed movement of wildlife through them. This shall be demonstrated to the satisfaction of the CDFG

or other jurisdictional bodies. Those plans or proposals shall require use of either bridges or culverts that are large enough that wildlife has enough space to pass through these road crossings without having to travel over the road surface. Additionally, future development within the ~~Remainder Area~~ Urban Reserve would be required to maintain stream corridors in perpetuity via a conservation easement or other deed restriction. The conservation easement shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan that would list, the details, responsible parties, funding mechanisms, and schedule. Alternately, this measure may be implemented by obtaining a Section 1600 Streambed Alteration Agreement from CDFG prior to any construction activities within stream corridors. Specific measures would be developed during discussions with CDFG, but may include using bridges instead of culverts, erosion control and bank stabilization measures, and/or restoration of stream corridor habitat that has been damaged due to the project construction.

WMM 4.7-13 ***Riparian Habitat Policies (Impact 4.8-8 SVSP)***

To protect riparian vegetation within the ~~SOI Amendment Area~~ SVSP area, the following policies shall be implemented:

(a) The project applicant shall provide for temporary fencing along the top of the bank during construction of those areas of the proposed project adjacent to riparian habitat to discourage access to the riparian habitat by humans and pets.

(b) The project applicant shall provide for permanent fencing and/or a landscape barrier to discourage access to the riparian habitat by humans and pets. The fencing and/or landscape barrier shall be placed at the top of the bank of the creeks along those portions of the site adjacent to riparian habitat. The proposed recreation trail shall be on the project site side of the fence/landscape barrier. The fencing and/or

landscape barrier shall be constructed of wood or other natural materials and shall allow for the viewing of the riparian habitat while discouraging access.

(c) Interpretive signs and displays shall be posted along the border of the riparian area to educate the public and route access away from sensitive areas. These informative signs will be posted at intervals ~~of not less than 500 feet~~ determined appropriate by the City of Roseville Parks and Recreation Director along the border with information regarding the objectives of creek and riparian habitat protection. Signs should also include information regarding the importance of restricting access to the riparian area by household pets. Such signs will be made of wood or similar natural material, and be maintained by the Applicant.

(d) Lighting adjacent to riparian buffers should be shielded away from the riparian areas.

WMM 4.7-15 ***Conduct Appropriate Surveys (Impact 4.8-11 SVSP and Urban Reserve)***

Prior to construction of any off-site infrastructure for Specific Plans and/or other development proposals for the ~~Remainder Area~~ SVSP Offsite Infrastructure improvements and Urban Reserve Area, the City shall require that appropriate biological surveys have been conducted and mitigation implemented. The surveys shall be performed, as needed, within any undisturbed areas that would be affected by infrastructure development. Therefore, if such resources are found, WMM 4.7-2, WMM 4.7-3, WMM 4.7-5 and WMM 4.7-11 shall be implemented as appropriate to the resource.

MM 4.8-1 (a): ***Ensure No Net Loss of Wetlands (Impacts 4.8-1, 4.8-2, 4.8-3, 4.8-4, 4.8-11, 4.8-13 -SVSP)***

The Clean Water Act Section 404 permit process (including Section 7 Consultation under FESA) is the standard method for developing mitigation for projects that affect wetlands and vernal pool species such as special-status plants, vernal pool crustaceans, and western spadefoots. Through this process, project applicants will be required to obtain the necessary permits and approvals to implement their proposed project while remaining in compliance with the Clean Water Act and FESA. If a 404 permit is not obtained, the City shall not issue a grading permit for the SVSP project. The obligation to obtain the 404 permit will ensure no net loss to federally protected wetlands. Even after obtaining such a permit, however, the applicants must demonstrate to the City's Planning Director that they have also achieved no net loss of wetlands. Mitigation shall consist of a combination of the preservation of on-site vernal pool habitat and the acquisition of off-site property with existing vernal pool habitat for preservation.

Mitigation shall include off-site creation and/or restoration of vernal pool habitat, and/or participation in a mitigation credit program from a wetlands mitigation bank approved by the USACE and USFWS. These banks charge fees in exchange for credits that are based upon the mitigation obligation of the applicant. If the applicant chooses to buy mitigation credits, the applicant shall pay fees that shall be used to restore, create, enhance, and/or preserve wetlands at an established mitigation bank. The credits shall be in direct proportion to the wetland impacts resulting from the project. The project applicants have identified appropriate off-site mitigation in the form of preservation and restoration, as shown in Figure 4.8-3. This restoration mitigation, coupled with on-site creation, will be a component of the required compensation for the project.

All wetland restoration and creation shall be conducted in a manner consistent with applicable USACE and USFWS mitigation guidelines and policies.

Additionally, mitigation shall include off-site creation and/or restoration of vernal pool habitat, and/or participation in a mitigation credit program from a wetlands mitigation bank approved by the Corps and USFWS. These banks charge fees in exchange for credits that are based upon the mitigation obligation of the applicant. The fee is used for wetlands that have been restored, created, enhanced, and/or preserved at an established mitigation bank. The credits shall be in direct proportion to the wetland impacts resulting from the project. The project applicants have identified appropriate off-site mitigation as shown in Figure 4.8-3. This restoration coupled with on-site creation will be a component of the required compensation for the project.

All wetland restoration and creation shall be conducted in a manner consistent with applicable Corps of Engineers and USFWS mitigation guidelines and policies.

MM 4.8-1 (b) ***Wetland Avoidance/Mitigation Plan (Impact 4.8-1, 4.8-2, 4.8-3 and 4.8-11- SVSP)***

For any wetlands to be restored or created outside of an approved mitigation bank, Applicant shall submit a Wetland Mitigation Plan to mitigate for impacts to wetlands that describes the specific method(s) to be implemented to mitigate any on- or off-site project related impacts. This detailed Wetland Mitigation Plan shall be prepared in accordance with applicable USACE and USFWS policies and regulations, and the City of Roseville Grading and Erosion Control Ordinance. A copy of the 404 permit, the biological opinion, and the Wetland Mitigation Plan shall be provided to the City at the time of specific entitlements (grading permit, tentative map, etc), and the

Wetland Mitigation Plan shall ensure the following to the satisfaction of the City:

- Describe the location of the proposed wetland mitigation site(s), including a detailed map showing the acreage, distribution, and type of wetlands to be restored/created to ensure no net loss in wetland habitat acreage, values and functions. The compensation wetlands shall be designed, at a minimum, to meet or exceed the functions of the existing wetlands to be impacted.

- Include a monitoring plan to assess whether the compensation wetlands are functioning as intended. Specific performance standards for hydrologic, floral, and faunal parameters shall be proposed to determine success of the created wetlands. The monitoring plan shall specify the corrective measures/ modifications to be implemented in the event that monitoring indicates that the performance standards are not being met.

- Include a long-term maintenance plan for the wetland preservation/mitigation areas describing the measures to be implemented to assure that they are maintained as wetland habitat in perpetuity.

- Require that fencing be installed around all existing wetlands that are within fifty feet of any haul route, spoil zone, stockpile zone, creation zone, or other construction area. The fencing shall be of high visibility material. Fencing shall be placed no closer than 10-feet to the delineated, verified perimeter of wetlands. This fencing shall be maintained until all adjacent construction activities are completed.

- A qualified biological resources monitor, approved by the City, shall be on the site(s) at all times when working in the open space corridor or other sensitive areas to ensure compliance with

identified mitigation for the duration of all the proposed activities. The biological resources monitor shall submit bi-annual compliance reports to City monitor for review for a period of five years after completion of construction or until all performance standards have been satisfied.

- The wetland mitigation site(s) shall be surveyed by a qualified biologist, no more than 30 days prior to the start of construction, for the presence of raptor and federal and state listed bird nesting sites, unless it is determined that construction will occur outside of the breeding season for all species likely to occur on site or observed present. If active nesting sites are observed, all state and federal guidelines pertaining to active nesting sites shall be strictly adhered to in consultation with a qualified biologist.

- Applicant shall grant full access to the wetland mitigation site(s) to the City for the monitoring of construction activities and mitigation compliance. Access shall be granted during all construction activities and the City monitor may issue stop work orders if mitigation non-compliance is identified.

- Applicant shall specify measures for reuse or disposal of excavated material that is suitable for use in the project area. The plan should minimize the elapsed time between excavation and reuse and provide adequate stockpile coverage and protection from wind and water erosion during the entire storage period. If excavated material is unsuitable for reuse at the project area, the plan shall include specific information regarding the eventual reuse or disposal site, transportation method(s), disposal reuse management, and schedule.

- The Wetland Avoidance Mitigation Plan shall include a spill prevention and response plan to the satisfaction of the City.

- All disturbed areas shall be re-vegetated by the following methods: hydro seeding, drill seeding, or spreading of upland seed bearing soil. The method of re-vegetation shall be approved by a qualified wetland specialist and the City.

- The applicant shall apply non-toxic soil stabilizers according to manufacture's specifications to all inactive construction areas. Non-toxic binders shall be applied to exposed areas after cut and fill operations and hydro seeded areas. The wetland mitigation site shall be watered as directed by the City of Roseville Public Works Department. The frequency shall be based on the type of operation, and soil and wind exposure.

- To reduce air emissions, idling time for all construction vehicles shall be limited to a maximum of 10 minutes. Additionally, the City may curtail construction during high ambient pollutant concentrations, including but not limited to, ceasing construction during peak-hour vehicular traffic on adjacent or nearby roadways. Additionally, all land clearing, grading, earth moving or excavation activities shall be suspended when winds exceed 15 mph.

- The applicants shall ensure that all inactive storage/stock piles are adequately covered, and that all trucks hauling dirt, sand, soil, or other loose materials also are adequately covered or maintain at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and top of the trailer) in accordance with the requirements of the California Vehicle Code (CVC) section 23114.

MM 4.8-2: ***Relocate Western Spadefoots (Impact 4.8-4 and 4.8-11- SVSP)***

The location of pools that are occupied by western spadefoot shall be determined through surveys conducted during the appropriate season (generally February), by a qualified biologist. Those pools that are found to

support western spadefoot shall be avoided if feasible. If avoidance is not feasible, then the CDFG shall be consulted for its recommendation with respect to an adult or larval or egg masses capture and relocation plan. Although there is no set protocol for this type of activity, the capture and relocation of reptile and amphibian species from areas that will be destroyed to areas of unoccupied suitable habitat is a fairly standard part of both USFWS and CDFG procedures and recommendations for mitigating impacts. When done in combination with habitat restoration and preservation, the procedure is known to be successful in preserving displaced populations. These measures would mandate that, where habitat avoidance is infeasible, western spadefoots displaced from pools that are destroyed during construction shall be relocated to protected areas of suitable habitat.

MM 4.8-3 ***Avoid Nesting Sites (Impact 4.8-6, 4.8-11 and 4.8-13- SVSP)***

To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures:

Raptors

a) When feasible, all tree removal shall occur between August 30th and February 15th to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area.

b) For Swainson's hawk, if avoidance of tree removal outside the breeding season is not feasible, and a nest is present, the applicants would be required to obtain a 2081 permit from CDFG to mitigate for potential "take" under CESA. If no nesting is occurring, a take permit would not be required.

c) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15th and August 30th, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30-days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350-feet of potential construction activity, a highly visible temporary fence shall be erected around the tree or burrow(s) at a distance of up to 350-feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area.

d) Preconstruction and non-breeding season exclusion measures shall be developed in consultation with CDFG, and shall preclude burrowing owl occupation of the portions of the project site subject to disturbance such as grading. Burrowing owls may be passively excluded from burrows in construction areas by placing one-way doors in the burrows according to CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls regardless of whether they exhibit signs of occupation must be cleared with the one way doors. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow.

e) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones) unless directly related to the management or protection of the legally protected species.

f) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.

Black Rails and Tri-colored Blackbirds

Prior to earth moving that would disturb marsh habitat, a qualified biologist shall conduct surveys to determine whether the California black rail or Tri-colored blackbird is present. If either of these species is found, all earth moving within 250 feet shall stop and measures, including establishing nest protection buffers along both sides of Curry Creek during the nesting season (generally February 1 through August 31st) shall be implemented.

Rookeries

No heron rookeries are present within the plan area. Prior to earthmoving that would disturb marsh habitat or tree removal of the eucalyptus grove, pre-construction surveys should be conducted to verify that no rookeries have been established. If rookeries are present all earth moving within 250-feet shall stop, during the breeding season.

WMM 4.7-7 ***Nest Protection Policies (Impact 4.8-6 Urban Reserve)***

Prior to adoption of any Specific Plans and/or other development proposals for the ~~Remainder Area~~ Urban Reserve Area, a plan and/or policies shall be developed and enacted to ensure that fully protected and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat. The plan and or policies shall include the measures set forth above in MM 4.8-3.

MM 4.8-4 ***Off-site and On-site Preservation of Grassland Habitat (Impact 4.8-6, 4.8-7 and 4.8-11-SVSP)***

Swainson's Hawk

a) CDFG recommends that projects that result in the loss of potential foraging habitat for Swainson's hawk (which includes grasslands) within 10-miles of an active nest site provide mitigation for that loss. To the extent feasible, strategies for preserving on-site grasslands as raptor and migratory bird foraging habitat will be addressed in the Operations and Maintenance Plan prepared pursuant to the Section 404 Permit. Some of these strategies could include; but are not necessarily limited to, grazing for grassland management, monitoring for biological values, and adaptive management. Mitigation for Swainson's hawk foraging habitat would concurrently mitigate for loss of habitat for a number of other wildlife species in the region such as burrowing owl, red-tailed hawk, white-tailed kite, northern harrier, Ferruginous hawk, and logger-head shrike among others.

Based on information obtained through consultation with CDFG and otherwise, a Swainson's Hawk Grassland Habitat Mitigation Plan shall be developed to mitigate for the loss of grassland foraging habitat, consistent with the ratios set forth in Table 4.8-7. Areas within Placer County including the Toad Hill Mitigation Bank, the Western Placer Schools Mitigation Area and a portion of Koshman Ranch and other sites that will be located within Placer County via conservation easements or other mechanisms would provide a total of 1,036 upland/grassland acres. This would

reduce the impacts to Swainson's Hawk to a **less than significant** level.

TABLE 4.8-8
SWAINSON'S HAWK MITIGATION RATIOS

Distance from Nest (miles)	Potential On-site Foraging Habitat Impacted (acres)	Mitigation Ratio	Mitigation Acres	On-site Open Space Preservation	Total Net Foraging Habitat to be Acquired
0-1	645.81	1:1	645.81	79.87	565.94
1-5	784.24	0.75:1	588.18	117.48	470.07
6-10	0	.5:1	0	0	0
Total	1,430.05		1,233.98	197.35	1,036

Long-billed Curlew, Burrowing Owls

Mitigation for the Swainson's hawk would ensure that adequate grassland is preserved at ratios identified in Table 4.8-7. For foraging within one mile of an active nest, mitigation would be 1:1. Greater than a mile would be at an amount of .75:1. This would set aside adequate grassland that would reduce impacts from loss of grasslands to these species to a **less than significant** level.

MM 4.8-5 ***Wildlife Movement Protection Policies (Impact 4.8-8, 4.8-10and 4.8-11-SVSP)***

To protect the long term habitat of the stream channels and the WAPA corridor and their potential use by wildlife as movement corridors, the project applicants shall ensure that movement corridors are not obstructed. Through compliance with Section 1600 of the CDFG Code, the applicant(s) will enter into a Streambed Alteration Agreement prior to conducting any construction activities within a stream corridor, which sets forth mitigation measures that the applicant must implement. These measures shall include, but not be limited to; the use of either bridges or culverts that are large enough that wildlife have enough space to pass through road

crossings without having to travel over the road surface, the implementation of bank stabilization measures, and/or restoration and re-vegetation of stream corridor habitat that has been damaged due to the project's construction. Furthermore, the recreational trails shall be lined by post and rail fence and signage would be used to direct trail users to stay within the designated trail corridor. The trails would be closed after dark and no exterior lighting would be used. Lastly, the implementation of MM 4.8-1 which provides for the conservation of onsite open space along the WAPA corridor and the stream channels would ensure adequate opportunities for wildlife movement through the plan area.

MM 4.8-6 ***Habitat Restoration/Onsite Preservation (Impact 4.8-1-SVSP)***

A conceptual on-site wetland creation mitigation plan for the SVSP has been prepared to provide for the creation of 45 acres of wetlands within and along the preserved open space corridors (as shown in Figure 2-7, Project Description). The wetlands shall be constructed during the dry season when surface water generally is not present. Design features shall be implemented in order to avoid ponding conditions during the late spring and summer to minimize mosquito breeding. Other design features specified in the hydrology report (Appendix O) shall be implemented to ensure channel stability and reduce potential for siltation and intensive maintenance obligations.

To protect the long term viability of the channel improvements, the following policies shall be implemented:

a) The project applicants shall provide permanent post and cable fencing and/or a landscape barrier to discourage access to the riparian habitat by humans or pets. The fencing and/or landscape barrier shall be placed at the boundary of the open space and developed area. The proposed recreation trails shall be on the project side of the fence/landscape barrier. The posts shall be constructed of wood or

other natural materials and shall allow for the viewing of habitat while discouraging access.

b) Interpretive signs shall be posted along the border of the area to educate the public and route access away from sensitive areas. These information signs will be posted at intervals of not less than ¼ mile or as deemed appropriate by the City of Roseville Parks and Recreation Director. The signs shall provide information on the objectives of the creek and habitat protection and benefits of the project for storm detention and water quality. Signs should also include information regarding the importance of restricting access by household pets.

MM 4.8-7 ***Off-site Surveys (Impact 4.8-11- SVSP)***

Prior to construction of any off-site infrastructure, a qualified biologist shall perform detailed, and if necessary, focused biological surveys of any undisturbed areas that would be affected by infrastructure development. Because infrastructure for the proposed project would be located in road right-of-way, or undeveloped land similar to the project site, the biological resources that would be expected to occur would not differ substantially from those identified in this EIR. If it is determined that wetland resources or sensitive species would be impacted MM 4.8-1 and MM 4.8-2 shall be implemented, as appropriate to the resource. If it is determined that active nests exist within the off-site improvement location, MM 4.8-3 shall be implemented as appropriate to the species. If it is determined the off-site improvement is located within or adjacent to a wildlife movement corridor, MM 4.8-5 shall be implemented.

This page intentionally left blank