

4.4 BIOLOGICAL RESOURCES

4.4.1 Introduction

This section addresses biological resources known or with potential to occur in the project area. The analysis includes a description of the existing biological resource conditions at the time the Notice of Preparation (NOP) was issued in November 2016, and provides a brief overview of applicable federal and state plans, policies, and laws and local plans, policies, and regulations pertaining to the protection of biological resources in Placer County. The analysis identifies the potential impacts of the project, including cumulative impacts, on biological resources and identifies mitigation measures, when available, to reduce the level of impact to less than significant.

Important terms for specific parts of the project are discussed in detail in Section 4.0, “Approach to the Environmental Analysis.” The following brief discussion is intended to remind the reader how those terms are defined and used in the EIR analysis, including this section. “SAP area” refers to the entire SAP area, which includes the PRSP area. “Net SAP area” refers to the portion of the SAP area outside the PRSP area. The “project” encompasses the entirety of the SAP, including the PRSP and all associated off-site improvements. “Project area” refers to the entire area covered by the project. Because the project area is composed of three pieces (the net SAP area, the PRSP area, and areas where other off-site infrastructure would support the project), the impact analysis typically is divided into three subsections: “Net SAP Area,” “PRSP Area,” and “Other Supporting Infrastructure.” (“Other Supporting Infrastructure” refers to improvements outside the SAP area and is divided into “Pleasant Grove Retention Facility” and “Off-Site Transportation and Utility Improvements.”) Some required infrastructure improvements are planned outside the PRSP area but still in the SAP area; those improvements are addressed in the “PRSP Area” sections.

No oak woodlands are present in the project area. Implementation of the SAP, including the PRSP, would not result in direct removal or alteration of oak woodlands or conversion to other land uses. Therefore, this issue is not discussed further.

Issues related to hydrology and water quality are relevant to aquatic habitats and plant and wildlife species associated with these habitats. Impacts associated with hydrology and water quality and appropriate mitigation measures for those impacts are addressed in detail in Section 4.9, “Hydrology and Water Quality.”

As discussed in Chapter 1, “Introduction,” the PRSP land use plan has been slightly revised since circulation of the NOP. Changes primarily relate to increasing the distance between the landfill property and land designated for residential uses, modifying the density of proposed residential areas, reducing the proposed commercial intensity, slightly decreasing the acreage of open space, and increasing the acreage of parks to meet County parkland provision standards. The size of the PRSP area (2,213 acres) has not changed since release of the NOP, and the overall area of development would be nearly identical. Due to the adjustment in open space, the current PRSP land use plan was reviewed for potential additional impacts to biological resources. The following analysis is based on the current PRSP land use plan.

4.4.2 Environmental Setting

REGIONAL SETTING

The SAP area is within the Sacramento Valley geographic subdivision of the Great Central Valley in the California Floristic Province and in the Mediterranean California Subregion (Land Resource Region [LRR]) specified by the US Department of Agriculture's Natural Resources Conservation Service. The climate is characterized by hot, dry summers and cool, moist winters. The rainy season is typically between November and May, and the region receives between 18 and 20 inches of precipitation in a typical year.

LOCAL SETTING

Presently, the SAP area is dominated by annual grasslands with vernal pool complexes, and small areas of existing industrial, rural residential, and commercial development. In addition, the SAP area includes intermittent drainages and two perennial streams: Orchard Creek in the northern portion of the SAP area, and a second order tributary to Pleasant Grove Creek in the southeast portion of the SAP area. A large intermittent stream/seasonal swale network traverses the PRSP area draining from northeast to southwest. This intermittent drainage, referred to as University Creek in the PRSP, is also a tributary to Pleasant Grove Creek and includes first, second, and third order stream segments within the PRSP boundary. Pleasant Grove Creek, a third order perennial stream, transects the site identified for the Pleasant Grove Retention Facility. The SAP area is characterized by gently rolling topography with an elevation range of roughly 75 feet in the southwest portion of the SAP area to a high of about 140 feet in the northeast portion. Surrounding land uses consist primarily of agricultural cropland and rangeland to the north and west, and urban development to the south and east. Surrounding habitats include rice crops, annual grasslands with vernal pools, seasonal and perennial streams, and narrow riparian woodland corridors along Pleasant Grove Creek, Orchard Creek, and Auburn Ravine.

Before human development, the natural habitats within and surrounding the SAP area were likely characterized by perennial bunchgrass-dominated prairies with bands of riparian woodlands and a variety of wetlands including vernal pools, seasonal wetlands, freshwater ponds, and intermittent streams. Agriculture, irrigation, and development have altered some of the natural habitats in the area through diversions, tilling, and installation of irrigation infrastructure. Nearby urbanization in the SAP area and the cities of Lincoln, Rocklin, and Roseville has resulted in changes to surface water hydrology in the vicinity, through diversion or encasement of natural drainages, increased imperviousness, and urban runoff. These factors have further altered the aquatic habitats in the local area. Nonnative annual grasses have replaced native perennial bunchgrass and wildflower prairies, many of the seasonal streams have been channelized and or impounded to create perennial streams and ponds, and riparian woodlands have mostly been cleared.

Approximately 1,800 acres (21 percent) of the SAP area are preserved as permanent open space in four existing conservation reserves located in the northern portion of the existing SIA: Antonio Mountain Ranch Mitigation Bank, Orchard Creek Conservation Bank, Warm Springs Mitigation Bank, and Moore Ranch Conservancy mitigation sites. These areas are identified as existing reserves in the Placer County Conservation Plan (PCCP). Reserve, preserve, and open space areas in the project vicinity are shown in Exhibit 4.4-1.

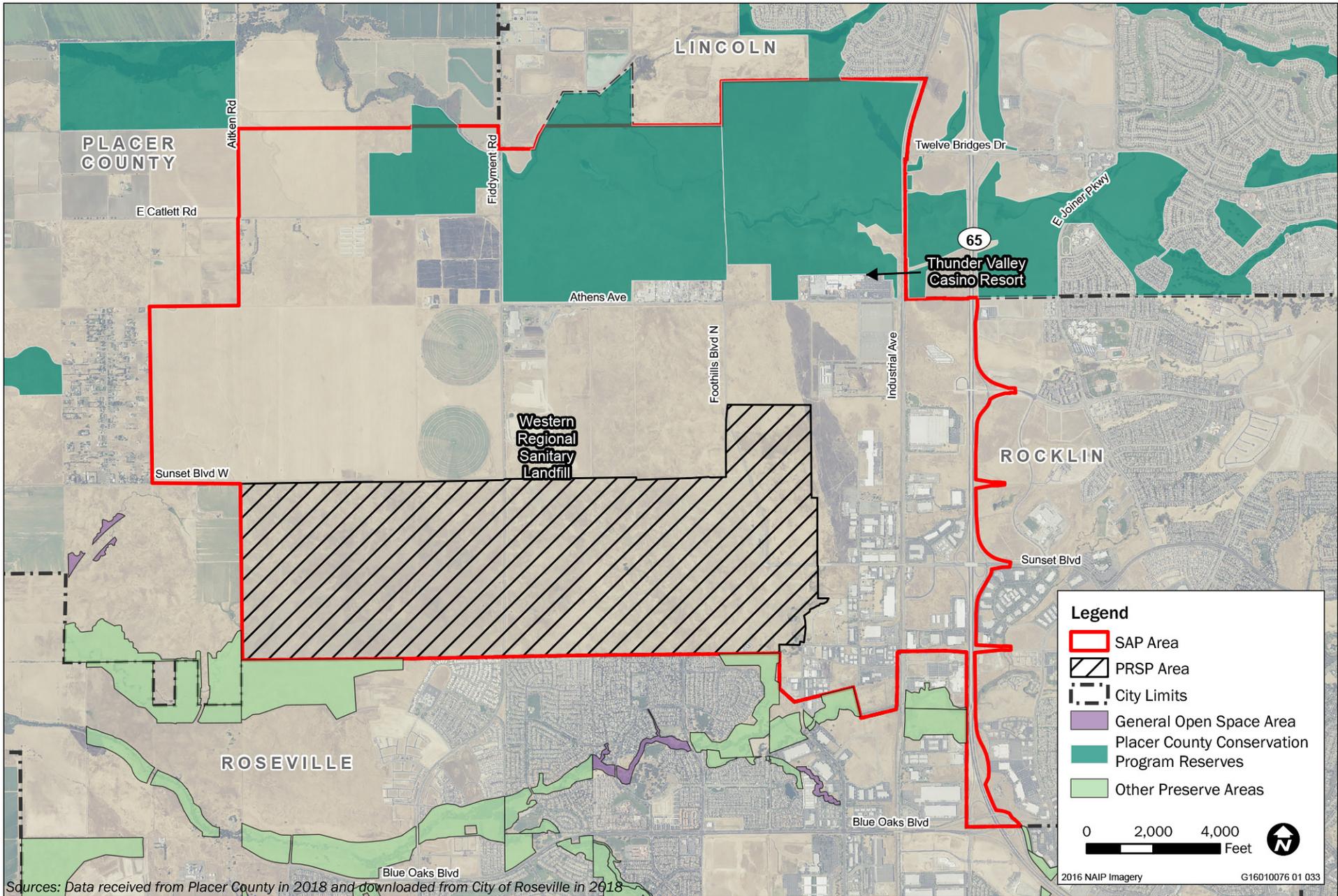


Exhibit 4.4-1

Existing Reserve, Preserve, and Open Space Areas



BIOLOGICAL COMMUNITIES

Methods for Documenting Existing Biological Conditions

The biological resource information presented in this section is based on review of available background reports; previous studies conducted on or near the project area; biological resource databases, including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society (CNPS) Inventory, aerial photography interpretation, the Placer County General Plan (Placer County 2013); the Sunset Industrial Area Existing Conditions Report (Placer County 2015a); Biological Resource Assessment for Placer Ranch (ECORP Consulting 2005), the PCCP (Placer County 2015b); the Biological Resources and Wetland Constraints Analysis for the ±620-Acre City of Roseville Pleasant Grove/Curry Creek Regional Retention Basin Study Area (Placer County 2017), and a reconnaissance-level survey of the PRSP area conducted by Ascent biologists in August 2017. The purpose of the 2017 reconnaissance-level survey of the PRSP area was to verify and update resource conditions previously assessed during surveys conducted in 2005 (ECORP Consulting 2005). In addition to the CNDDDB RareFind database, the CNDDDB Quickview tool and Biogeographic Information and Observation System (BIOS) were reviewed for special-status species occurrences that have been reported, but not processed into the RareFind database.

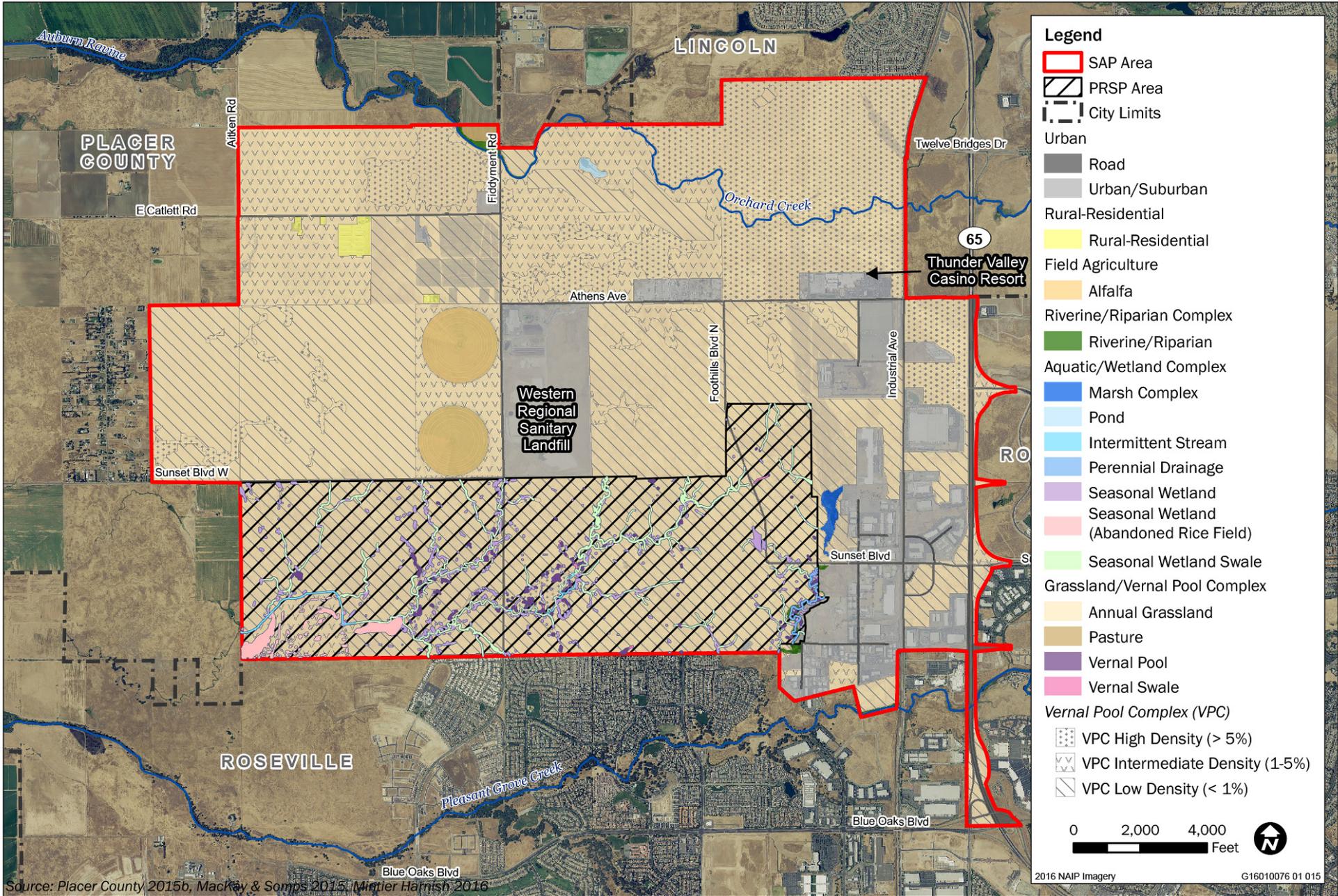
Land Cover and Habitat Types

This section describes the land cover and habitat types present in the SAP area, using the classification terminology and mapping units developed for the PCCP. The PCCP uses the terms community, land cover type, and constituent habitat to classify and describe the biological setting of the PCCP Area, which includes the SAP area.

Communities are the highest classification type in the PCCP and consist of land cover types grouped together based on similarity in vegetation type, vegetation structure, ecological function, and current land use. The PCCP uses the term land cover type to describe the basic mapping units. The land cover types in the PCCP are modeled after the California wildlife habitat relationship (CWHR) system used by CDFW and therefore correspond to habitat types used by California fauna. The land cover types incorporate some CWHR definitions for components of natural communities, but add other definitions to describe the mosaic of agricultural and urban uses. Land cover for the PCCP was mapped using aerial photography.

The PCCP uses the term constituent habitat to describe habitat elements within land cover types that cannot be mapped and measured directly using aerial photography. Constituent habitats comprise wetlands and riparian vegetation that are subject to mapping protocols defined in regulation that require ground level access and detailed cartography that is not available uniformly throughout the PCCP Area. The PCCP analysis of these constituent wetland and riparian habitats is based on estimates of their presence in the various land cover types; however, for the PRSP area, wetland and riparian habitats are based on delineations conducted according to USACE methodologies in 2005.

While portions of the SAP area are developed, including rural-residential, urban/suburban, and other disturbed lands, most of the area consists of vegetation and other natural land cover types that provide habitat for a variety of plant and wildlife species. A majority of the SAP area has been historically tilled for production of grain crops, such as wheat and oats, and the southwest portion of the PRSP area was once used for rice cultivation. Undeveloped portions of the SAP area have also been used for livestock grazing. While past agricultural practices have altered the natural landscape, and degraded many of the vernal pools, these practices have not eliminated the vernal pool depressions or deep-ripped the hardpan that inhibits water infiltration over much of the SAP area. Annual grassland and vernal pool complex are currently the predominant natural land cover types in the SAP area, followed by alfalfa, riverine/riparian complex, marsh complex, and pasture. Exhibit 4.4-2 shows the location and extent of land cover types mapped in the SAP area for the PCCP, and constituent habitats delineated at a project level in the PRSP area. Table 4.4-1 summarizes the acreage of each community type and land cover type mapped in the SAP area according to the PCCP. The vegetated or natural land cover types in the SAP area, and typical wildlife species found in these land cover types in the region, are described below.



Source: Placer County 2015b, MacKay & Soms 2015, Mintier Harnish 2016

Exhibit 4.4-2

Land Cover



Table 4.4-1 Communities and Land Cover Types in the Sunset Area Plan and within the Placer Ranch Specific Plan Area, as mapped for the Placer County Conservation Plan

Community Type	Land Cover Type	PRSP Area	SAP Area Total
Grassland/Vernal Pool Complex	Annual Grassland	2,173	6,948
	Vernal pool Complex (VPC) ¹		
	VPC High Density	88	1,390
	VPC Intermediate Density	181	1,382
	VPC Low Density	1,904	4,165
	Pasture	0	11
Riverine/Riparian Complex	Riverine/Riparian Complex	8	28
Aquatic/Wetland Complex	Marsh Complex	0	15
	Pond	0	6
Field Agriculture	Alfalfa	0	176
Urban	Urban and Suburban and Roads	27	1,294
Rural-Residential	Rural-Residential	0	31
	Total	2,213	8,498

¹ Vernal pool complex and pasture land is included in and overlaps with the annual grassland land cover type and acreage.

Note: Figures do not perfectly correspond to SAP and PRSP project areas (8,497 and 2,213 acres, respectively) due to rounding and minor variations in GIS data for different land cover types over such a large area.

Source: Placer County 2015b

Annual Grassland

Annual grassland is the predominant land cover type in the SAP area, including the PRSP area. Annual grassland (approximately 90 acres) is also present within the Pleasant Grove Retention Facility and other supporting infrastructure areas. Annual grassland habitats in the SAP area and other supporting infrastructure areas, and throughout the state, vary in species composition and abundance depending on site factors such as soil chemistry and texture, topography, and disturbance regime. Species composition and abundance also vary temporally from season to season and year to year (Sawyer et al. 2009:30). Typically, the annual grasslands in the plan area are dominated by any one or a combination of the following nonnative annual species: ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), medusahead grass (*Elymus caput-medusae*), wild oat (*Avena barbata*, *A. fatua*), Italian rye (*Festuca perennis*), and yellow star thistle (*Centaurea solstitialis*). Although nonnative species dominate this cover type, numerous species of native wildflowers are also present, including narrow tarplant (*Holocarpha virgata*), Fitch’s spikeweed (*Centromadia fitchii*), blue dicks (*Dichelostemma capitatum*), royal larkspur (*Delphinium variegatum*), wild hyacinth (*Triteleia hyacinthina*), valley tassels (*Castilleja attenuata*), purple owl’s clover (*Castilleja exserta*), harvest brodiaea (*Brodiaea elegans*), and butter ‘n’ eggs (*Triphysaria eriantha* ssp. *eriantha*). Portions of the SAP area that have undergone less disturbance generally have a higher proportion of native species, while the more intensively disturbed areas, such as those that were historically farmed, have a higher proportion of nonnative and invasive species.

Common bird species observed in annual grasslands in the area include western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), and Brewer’s blackbird (*Euphagus cyanocephalus*). Raptors such as white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), Swainson’s hawk (*Buteo swainsoni*), northern harrier (*Circus cyaneus*), burrowing owl (*Athene cunicularia*), and great horned owl (*Bubo virginianus*) typically utilize annual grasslands in the region and several of these species were observed in the plan area during reconnaissance surveys.

Common mammals associated with annual grassland habitats include the California ground squirrel (*Spermophilus beecheyi*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), cottontail (*Sylvilagus audubonii*), black-tailed hare (*Lepus californicus*), and a

variety of small rodents, including deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*).

Reptile species known or expected to occur in annual grassland habitats in the SAP area include gopher snake (*Pituophis catenifer*), mountain garter snake (*Thamnophis elegans elegans*), western yellow-bellied racer (*Coluber constrictor*), and western fence lizard (*Sceloporus occidentalis*).

Vernal Pool Complex

The vernal pool complex land cover type overlaps entirely with annual grassland, but is defined as a separate land cover type in the PCCP to identify annual grasslands that contain vernal pools to enable analysis and conservation on the full extent of habitat for vernal pool species covered in the PCCP. The PCCP uses the term complex to characterize land cover types or constituent habitats that occur in such an integrated mosaic that they cannot be reliably distinguished using the PCCP primary mapping methodology (aerial photo interpretation) or that are highly variable in extent.

The key constituent habitats for a vernal pool complex are the following three wetland types that provide vernal pool habitat functions: vernal pools, seasonal wetlands, and seasonal swales. Together, these three wetland types are termed "vernal pool type wetlands." These features were mapped for the PCCP at a coarse scale that includes vernal pool type wetlands and the matrix of surrounding grassland habitat that make up the vernal pool complex. Mapping at this scale, however, did not distinguish between types and sizes of pools/seasonal wetlands/swales.

Vernal pools form in seasonally flooded depressions in annual grasslands under a combination of specific climatic, soil, hydrologic, and topographic conditions. Most vernal pool species carry out their entire lifecycle in vernal pool wetlands, but the wetlands depend on the surrounding upland areas and together constitute the vernal pool complex. Because vernal pools form in grasslands, the previous description of the annual grassland land cover type applies here as well. Some vernal pool species, such as western spadefoot (a special-status species), spend a portion of their life cycle in vernal type wetlands and the remainder in the surrounding uplands, therefore, they are dependent on the vernal pool-grassland complex to complete their life cycle.

Three categories of vernal pool complex were mapped for the PCCP based on nominal wetland density: 1) high density (>5 percent), 2) intermediate density (1-5 percent), and 3), low density (wetlands present but density <1 percent). Areas mapped as "vernal pool complex (VPC) high density" are estimated on average to comprise 4.5 percent wetlands delineated as vernal pools, 4.0 percent seasonal wetlands, and 2.0 percent seasonal swales for a total of 10.5 percent of vernal pool type wetlands. Areas mapped as "VPC intermediate density" have roughly half of the wetland density as VPC high density. The "VPC low density" land cover type is intended to capture the large amount of annual grassland and pasture lands that retain small, but appreciable vernal pool ecological function. Areas mapped as VPC low density are likely to show 0.2 percent delineated vernal pools and larger amounts of seasonal wetlands or seasonal swales (Placer County 2015b). The SAP area contains all three vernal pool complex land cover types. The high-density complexes (VPC high density) are located primarily in the northern portion of the SAP area (Exhibit 4.4-1), within existing conservation reserves and adjacent land being considered in the PCCP as possible reserve acquisition areas.

Many of the annual grassland habitats in the SAP area contain natural, created, or restored vernal pools/seasonal wetlands, including the Warm Springs Mitigation Bank and Moore Ranch Conservancy mitigation sites located near Catlett Road and Fiddymont Road, the Orchard Creek Conservation Bank located north of Athens Road and east of Industrial Avenue, and the Antonio Mountain Ranch Mitigation Bank located north of Athens Road and west of the Orchard Creek Conservation Bank.

Vernal pools are shallow depressions underlain by a water-restricting layer. Vernal pools support specialized plant and invertebrate communities that require inundated conditions. The types of flowering wetland plants differentiate vernal pools from other seasonal wetlands. A high proportion of plants found in vernal pools are endemic (i.e., restricted) to vernal pools and typically less than 7 percent of vernal pool flora is comprised of introduced species. Additionally, about 33 percent of vernal pool endemic plant species are rare or

endangered. Vernal pool plant species commonly observed in the planning area include winged water-starwort (*Callitriche marginata*), annual hairgrass (*Deschampsia danthonioides*), horned downingia (*Downingia bicornuta*), folded downingia (*D. ornatissima*), coyote thistle (*Eryngium vaseyi*), bractless hedge-hyssop (*Gratiola ebracteata*), smooth goldfields (*Lasthenia glaberrima*), slender popcorn flower (*Plagiobothrys stipitatus*), woolly marbles (*Psilocarphus brevissimus*), Carter's buttercup (*Ranunculus bonariensis*), and white-tip clover (*Trifolium variegatum*).

The invertebrate species that potentially occur in vernal pools and seasonal wetlands include common species such as the clam shrimp (*Cyzicus* or *Lynceus* spp.), seed shrimp, and several aquatic insects including predaceous diving beetles (Family Dytiscidae), crawling water beetles (Family Haliplidae), back swimmers (Family Notonectidae), and water fleas (*Daphnia* spp.). Federally listed vernal pool fairy shrimp (*Branchinecta lynchi*) are known to occur in vernal pools in the SAP area. Pacific chorus frogs (*Pseudacris regilla*) have been observed in vernal pools and seasonal wetlands in the SAP area (ECORP Consulting 2005) and western toad (*Bufo boreas*) is likely to occur there as well.

Seasonal wetlands within the vernal pool complexes are low-lying areas or depressions that accumulate runoff during precipitation events and remain saturated for a long enough period following rainfall to become dominated by species adapted to anaerobic conditions. Seasonal wetlands occur as basins, and linear features, which are referred to herein as seasonal wetland swales. Seasonal wetlands are similar to vernal pools, but are differentiated from them by their plant species composition, which tends to be characterized more by nonnative and generalist wetland species rather than the native and endemic species that are indicative of vernal pools. Characteristic species in the seasonal wetlands and swales in the SAP area include Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), swamp grass (*Crypsis schoenoides*), rabbitsfoot grass (*Polypogon monspeliensis*), hyssop loosestrife (*Lythrum hyssopifolium*), and pennyroyal (*Mentha pulegium*). The seasonal wetlands in the SAP area likely supported vernal pool plant species historically, but were degraded by agricultural activities. Within the PRSP area, there are seasonal wetlands that are highly altered because of previous rice cultivation. These are identified as seasonal wetlands (abandoned rice fields) in Exhibit 4.4-1. Although these abandoned rice field seasonal wetlands are degraded, they still function as vernal pool type wetlands and support some plant species that are characteristic of vernal pools like woolly marbles and smooth goldfields.

Pasture

The pasture land cover type, as mapped for the PCCP, covers a range of grazing intensity and irrigation practices and is differentiated from annual grassland and vernal pool complex land cover types in that they have been modified by irrigation, planting, and tilling.

Vegetation in irrigated pasture is generally a mixture of perennial grasses and legumes that form a dense ground cover. Native plant species are nearly absent from irrigated pastures because they are unable to compete with the vigorous nonnative species common in pastures, such as fescues (*Festuca* spp.), dallisgrass (*Paspalum dilatatum*), orchard grass (*Dactylis glomerata*), velvet grass (*Holcus lanatus*), Bermuda grass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), barnyard grass (*Echinochloa crus-galli*), curly dock (*Rumex crispus*), lady's-thumb (*Persicaria maculosa*), and clovers (*Trifolium* spp.).

Wildlife species associated with pasture in western Placer County are generally the same as those described above for annual grassland. Other birds that typically forage in the county's irrigated pastures include great blue heron (*Ardea herodias*), great egret (*Ardea alba*), Canada goose (*Branta canadensis*), California quail (*Callipepla californica*), and red-winged blackbird (*Agelaius phoeniceus*).

Pond and Marsh Complex

Ponds and marsh complexes in western Placer County are often primarily open water with a fringe of perennial vegetation dominated by cattail (*Typha latifolia*), tule (*Schoenoplectus acutus*), and common rush (*Juncus effusus*). Other commonly observed plant species in pond and marsh habitat in the SAP area include creeping spikerush (*Eleocharis macrostachya*), iris-leaved rush (*Juncus xiphioides*), swamp smartweed (*Persicaria hydropiperoides*), water plantain (*Alisma* spp.), giant arrowhead (*Sagittaria montevidensis*), and bearded sprangletop (*Leptochloa fusca*).

Pond and marsh complex provide potential habitat for a variety of species including tricolored blackbirds (*Agelaius tricolor*), red-winged blackbirds, great blue heron, great egret, mallard (*Anas platyrhynchos*), marsh wren (*Cistothorus palustris*), Wilson's snipe (*Gallinago delicata*), American bullfrog (*Rana catesbeiana*), Pacific chorus frog, common garter snake (*Thamnophis sirtalis*), mountain garter snake, and raccoon.

In the SAP area, pond habitat is composed of a single pond encompassing approximately 6 acres in the northern portion of the SAP area within the preserve/mitigation reserve land use designation. The marsh complex in the SAP area consists of a contiguous patch of fresh emergent marsh habitat concentrated in the southeast corner, adjacent to urban and suburban lands and just east of the PRSP boundary (Exhibit 4.4-1). The proposed Campus Park Boulevard between the PRSP east boundary and Industrial Boulevard would traverse this marsh complex. The marsh complex is associated with a tributary to Pleasant Grove Creek and is clearly visible on aerial imagery up until 2016 when it appears the marsh complex was burned in a fire. It is unclear what the primary water supply to this habitat was, but it appears much drier currently than it did in imagery taken before 2016. According to ECORP Consulting (2005), the marsh complex appeared to result from flooding caused by beaver dams, and runoff from development to the east of the marsh appeared to provide an additional supply of water into the marsh complex. Perhaps the beavers and their dams were removed, either as a result of the fire or by other means, and the area is no longer flooding. The marsh vegetation may be slowly regenerating, but it did not appear evident from observations made from West Sunset Boulevard during the August 2017 reconnaissance survey and there was no standing water visible in the area. It is also possible that a former supply of runoff water from adjacent businesses has been cut off. Whatever the cause, the extent of the marsh complex has been substantially reduced from the time it was mapped for the PCCP and described by ECORP Consulting in 2005. Approximately 1.7 acres of emergent marsh were mapped within the PRSP area in 2005 and is connected to the larger marsh complex outside the PRSP boundary.

An additional marsh complex is present near the northern boundary of the Pleasant Grove Retention Facility site. This marsh complex is associated with another tributary to Pleasant Grove Creek and may also be the result of beaver dams.

Riverine/Riparian Complex

Riparian areas provide important habitat for a variety of wildlife. In the SAP area, riverine/riparian complex is composed of valley foothill riparian habitat that occurs in narrow strips along Orchard Creek and the Pleasant Grove Creek tributary in the southeast corner of the PRSP area. Orchard Creek is a third order stream and the Pleasant Grove tributary in the southeast corner of the PRSP area is a second order stream. The intermittent tributary to Pleasant Grove Creek that flows across the southwest portion of the PRSP area is a third order stream, known as University Creek, that is severely incised and supports only occasional Fremont cottonwood trees on its banks; it therefore does not support valley foothill riparian habitat, but it does contain small patches of marsh and aquatic vegetation in pools that remain inundated for long duration. First and second order segments of this stream are also present within the PRSP area. Riverine/riparian complex is present along Pleasant Grove Creek and tributaries at the Pleasant Grove Retention Facility site, and Woodcreek Recycled Water Tank site.

Vegetation composition in the riverine/riparian complex land cover type includes a mix of trees, shrubs, and herbaceous vegetation, including valley oak (*Quercus lobata*), interior live oak (*Q. wislizenii*), Oregon ash (*Fraxinus latifolia*), Fremont cottonwood (*Populus fremontii*), coyote brush (*Baccharis pilularis*), willow (*Salix* spp.), Himalayan blackberry (*Rubus armeniacus*), sedges (*Carex* spp.), rushes (*Juncus* spp.), tall flatsedge (*Cyperus eragrostis*), and rough cocklebur (*Xanthium strumarium*). Patches of marsh vegetation, as described above, occur within the riverine/riparian complexes throughout the plan area.

Wildlife species that utilize the valley foothill riparian habitat include the lesser goldfinch (*Carduelis psaltria*), downy woodpecker (*Picoides pubescens*), acorn woodpecker (*Melanerpes formicivorus*), yellow-rumped warbler (*Dendroica coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), California ground squirrel, western gray squirrel (*Sciurus griseus*), opossum, striped skunk, raccoon, muskrat (*Ondatra zibethicus*), and American beaver (*Castor canadensis*). Amphibian and reptile species associated with riverine/riparian habitats in the area include bullfrog, Pacific chorus frog, western toad, western fence lizard, and common garter snake.

Field Agriculture

Agricultural land provides food and cover for small mammals, which in turn provide a prey base for raptors. Alfalfa fields in the SAP area are located next to the Western Regional Sanitary Landfill (WRSL). These fields are irrigated and provide potential foraging habitat for several songbird species such as horned lark, brewer's blackbird, red-winged blackbird, tricolored blackbird (*Agelaius tricolor*), western meadowlark, and savannah sparrow (*Passerculus sandwichensis*), and raptors such as red-tailed hawk, Swainson's hawk, white-tailed kite, northern harrier, and burrowing owl. As with the annual grasslands, a variety of small mammals including deer mouse, California vole, Botta's pocket gopher, cottontail, and black-tailed hare use alfalfa fields and provide food sources for raptors.

Additional agricultural crops are found at the Pleasant Grove Retention Facility site. The proposed 276-acre south basin of the Pleasant Grove Retention Facility would be located on a 620-acre property that contains approximately 436 acres of dryland farm and 75 acres of rice crops (Placer County 2017); the remainder is uncultivated land. Rice farming has been ongoing at the Pleasant Grove Retention Facility site for decades and the current dryland farm areas were previously cultivated in rice (Placer County 2017). The predominant crop in the dryland farm areas is Italian rye grass. The site of the Pleasant Grove Retention Facility north basin consists primarily of a dryland farm, which has been actively farmed since at least 1993.

During the field surveys of the PRSP area conducted in 2005 by ECORP Consulting, approximately 100 acres in the southwest portion of the plan area was cultivated in rice; however, these rice fields have since been abandoned and have reverted to annual grassland and seasonal wetland habitats. The check dams are still in place thereby inhibiting natural runoff across this portion of the site. Active wheat fields were also in cultivation in the PRSP area in 2005, but these areas have also been fallowed and have reverted to weedy annual grassland cover.

Fisheries

Orchard Creek, Pleasant Grove Creek, and their tributaries support warmwater fisheries characterized by introduced species (Wildlands 2005, Placer County 2006). Fish species known to occur in these streams within the SAP area include bluegill (*Lepomis macrochirus*), pumpkinseed (*Lepomis gibbosus*), redear sunfish (*Lepomis microlophus*), mosquitofish (*Gambusia affinis*), carp (*Cyprinus carpio*), largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), yellow shiner (*Notemigonus crysoleucas*), and channel catfish (*Ictalurus punctatus*) (Wildlands 2005). A number of invasive aquatic organisms are also found in these waterways, including Asiatic clam (*Corbicula fluminea*), American bullfrog, and crayfish. No portions of Orchard Creek or the Pleasant Grove tributaries within the SAP area provide suitable habitat for salmonid species because of warm summer temperatures, high organic content, absence of gravel or cobble substrate, and lack of instream cover. Similarly, assessments by Bailey Environmental (2003) found that the middle and lower reaches of Pleasant Grove Creek were also unsuitable for salmonids because of warm water temperatures and lack of suitable spawning substrates.

Auburn Ravine, approximately 0.75 mile north of the SAP area, provides suitable habitat for salmonids and is occupied by Central Valley steelhead (migration and rearing habitat) and Chinook salmon; Orchard Creek in the project area is hydrologically connected to Auburn Ravine.

Nonnative and Invasive Species

Nonnative plant and wildlife species are those that have been introduced through human activities, either incidentally or deliberately. Most nonnative species are not invasive and do not adversely affect natural plant and animal communities. Invasive species are those that are not native to the region, persist without human assistance, and once established, quickly reproduce and spread and have serious impacts on the native environment. The term "invasive" differs from the classification terms "nonnative," "exotic," or "introduced" because it is (when applied correctly) used only to describe those nonnative species that displace native species on a large enough scale to alter habitat functions and values.

The Cal-IPC maintains a list of plant species that have been designated as invasive in California. Invasive plant species are widespread and abundant in the SAP area and include ripgut brome, medusahead grass, wild oat

(*Avena fatua*), Bermuda grass, Italian rye, waxy mangrass (*Glyceria declinata*), yellow star thistle, blessed milk thistle (*Silybum marianum*), black mustard (*Brassica nigra*), Himalayan blackberry, Klamathweed (*Hypericum perforatum*), poison hemlock (*Conium maculatum*), pennyroyal, and rose clover (*Trifolium hirtum*). Invasive plant species have become dominant over much of the SAP area and converted native plant communities to nonnative vegetation types. The impacts of invasive plants can include alteration of hydrological patterns, fire cycles, and soil chemistry; reduction of nutrient, water, and light availability; decreased wildlife habitat values; and reduced biodiversity (Coblentz 1990, Vitousek et al. 1996, Brossard et al. 2000).

A number of invasive wildlife species are also known to occur in the SAP area, including Argentine ants (*Linepithema humile*), Asiatic clam, crayfish, American bullfrog, and European starling (*Sturnus vulgaris*). American bullfrog, Asiatic clam, and crayfish compete with native fish, amphibians, and reptiles for food and prey on eggs and juveniles of these species. Argentine ants can displace native ant populations that are an important food source for some wildlife species, such as coast horned lizard (*Phrynosoma blainvillii*) (Suarez et al. 2000), or that tend caterpillars of native butterflies. Argentine ants are aggressive competitors and predators on native invertebrates, and a negative correlation between Argentine ants and native invertebrate diversity, especially native ant diversity, has been demonstrated (Cole et al. 1992; Human and Gordon 1997; Bolger et al. 2000). This includes an observed negative association between valley elderberry longhorn beetle and Argentine ants (USFWS 2006). Argentine ants require moisture and may thrive in riparian areas or in irrigated settings (USFWS 2006). European starlings and other invasive birds can prevent native birds from breeding successfully. European starlings compete for nest cavities with native birds, such as oak titmouse (*Baeolophus inornatus*) and Nuttall's woodpecker (*Picoides nuttallii*), and their high productivity can slow reproductive progress for native cavity-nesting birds.

Sensitive Biological Resources

Sensitive biological resources include those species, natural communities, and habitats that receive special protection through the Federal Endangered Species Act (ESA), California Endangered Species Act (CESA), Clean Water Act (CWA), California Fish and Game Code, or local plans, policies, and regulations; or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. Sensitive biological resources evaluated as part of this analysis include sensitive natural communities and special-status plant and animal species. These resources are discussed below.

Sensitive Natural Communities and Habitats

Sensitive habitats are defined as habitats with particularly high ecological values or functions, of limited distribution, or otherwise of concern to federal, state, and/or local resource agencies. Sensitive habitats are often designated because they are declining regionally or statewide. Sensitive habitats are of special concern because they have high potential to support special-status plant and animal species and can provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality. Sensitive habitats include Natural Communities of Special Concern that are identified by CDFW (e.g., having a high priority for inventory by the California Natural Diversity Database [CNDDB]) or those afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, California's Porter-Cologne Act, or Section 404 of the CWA.

Sensitive habitats mapped in the SAP area consist of vernal pool type wetlands, marsh complexes, riverine/riparian complexes, and intermittent and perennial streams. These habitats would be subject to regulation by USACE and the Central Valley Regional Water Quality Control Board (RWQCB) under Section 404 and 401 of the CWA or under the Porter-Cologne Act, and/or by CDFW under California Fish and Game Code.

Small inclusions of valley needlegrass grassland, which is also a sensitive natural community, may be present in the project area, interspersed within the annual grassland community described above. This community type has not been mapped and quantified in the SAP area but has been documented in the CNDDB search area. Valley needlegrass grassland is characterized by purple needlegrass (*Nassella pulchra*), a native perennial bunchgrass. Associate species are primarily native and nonnative annual forbs including blow wives (*Achyrachaena mollis*), Ithuriel's spear (*Triteleia laxa*), California poppy (*Eschscholzia californica*),

hayfield tarweed (*Hemizonia congesta* ssp. *luzulifolia*), valley tassels, and other native wildflower species characteristic of the annual grassland community.

Special-Status Species

Special-status species are plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. In this document, special-status species are defined as:

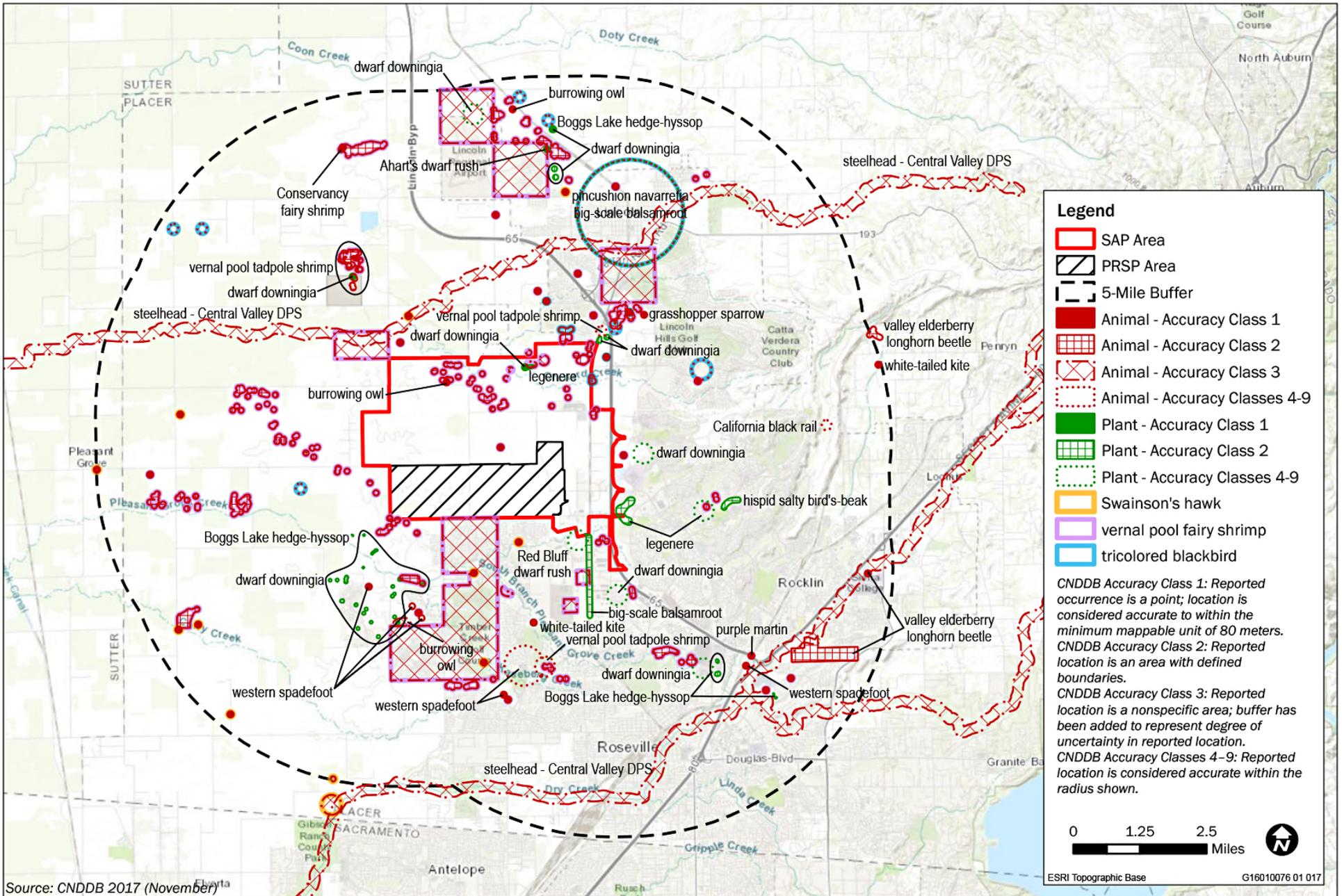
- ▲ species listed or proposed for listing as threatened, rare, or endangered under the ESA or CESA;
- ▲ species considered as candidates for listing under the ESA or CESA;
- ▲ wildlife species designated by CDFW as Species of Special Concern;
- ▲ animals fully protected under the California Fish and Game Code; and
- ▲ plants considered by CDFW to be “rare, threatened, or endangered in California” (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California and not known to occur elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California, but more common elsewhere and 2B, considered rare or endangered in California but more common elsewhere).

A list of special-status species that could potentially occur in the project area, provided suitable habitat conditions were present, was developed through review of available background reports; previous studies conducted in or near the plan area, as described previously; an official list obtained from the USFWS Information for Planning and Consultation (IPaC) (USFWS 2017a); and CNDDDB and CNPS Inventory records of previously documented occurrences of special-status species in the Roseville, Rocklin, Lincoln, Sheridan, Gold Hill, Pleasant Gove, Rio Linda, Folsom, and Citrus Heights U.S. Geological Survey 7.5-minute quadrangles (CNDDDB 2017, CNPS 2017). Exhibit 4.4-3 shows the locations of special-status species occurrences recorded in the CNDDDB that are within 5 miles of the SAP area. All 14 fish and wildlife species or distinct population segments proposed for coverage under the PCCP were included in the initial list of potentially occurring special-status species; however, some were eliminated from further evaluation based on habitat or range limitations as discussed further below. All 14 PCCP proposed covered species meet at least one of the special-status species criteria listed above.

Plants

The literature and database reviews identified 10 special-status plant species that could occur in or near the SAP area, provided suitable habitat conditions were present. Table 4.4-2 summarizes the regulatory status, habitat and flowering period, and potential for occurrence within the SAP plan area of each of these 10 special-status plant species. No plant species are proposed for coverage under the PCCP.

A protocol-level botanical survey was conducted in the PRSP area in 2005 by ECORP Consulting. Additionally, Ascent biologists conducted a reconnaissance survey in 2017 to verify and update habitat conditions assessed previously in 2005. One special-status plant species, dwarf downingia, was observed during the botanical survey conducted in 2005, and there is a 2002 record of this species occurring in vernal pools near Orchard Creek in the northeast portion of the SAP area that is designated as a preserve area (CNDDDB 2017). Another special-status plant species, legenere, has also been documented in the designated preserve area in the northeast portion of the SAP area in 2002. No other special-status plant species are known to occur in the SAP area; however, because botanical surveys have not been conducted over the entire SAP area and protocol-level surveys have not been conducted in the PRSP area since 2005, it is possible that additional special-status plant species occur in suitable habitats within the project area or that the previously documented species occur at additional locations.



Source: CNDDB 2017 (November)

Exhibit 4.4-3

Special-Status Species within 5 Miles of Project Area



Table 4.4-2 Special-Status Plant Species Known to Occur or with Potential to Occur in the Project Area

Species	Status ¹			Habitat and Blooming Period	Potential for Occurrence ²
	USFWS	CDFW	CRPR		
Big scale balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, often on serpentinite soils; 295 to 4,600 feet elevation; blooms March-June.	Not expected to occur. The SAP area and off-site improvements are below the known elevation range of this species and there are no serpentine soils in the SAP area. Although not restricted to serpentinite soils, this species is usually (65 to 74% of the time) found on serpentinite soils.
Hispid bird's beak <i>Chloropyron molle</i> ssp. <i>hispidum</i>	-	-	1B.1	Alkaline meadows, seeps, and playas below 500 feet elevation; blooms June-September.	Not expected to occur. There is no suitable habitat present in the SAP area or off-site improvement areas.
Dwarf downingia <i>Downingia pusilla</i>	-	-	2B.2	Vernal pools or other seasonal wetlands in annual grasslands below 1,500 feet in elevation; blooms March-May.	Known to occur. This species has been found in vernal pools in the northeast portion of the SAP area (within mitigation reserve lands), and in the northwest portion of the PRSP area (ECORP Consulting 2005).
Bogg's Lake hedge hyssop <i>Gratiola heterosepala</i>	-	E	1B.2	Lake margin marshes and swamps, vernal pools, and other seasonal wetlands, primarily in clay soils; 30 to 8,000 feet elevation; blooms April-August.	Could occur in vernal pools or other seasonal wetlands in the SAP area. Known occurrences southwest of the PRSP area and very near the proposed future Westbrook Boulevard.
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	-	-	1B.2	Vernal pools and swales in areas of low cover of competing vegetation; most often on gopher turnings along margins of pools (Witham 2006:38); 95 to 750 feet elevation; blooms March-May.	Could occur. Potentially suitable vernal pool habitat is present throughout the SAP area.
Red Bluff dwarf rush <i>Juncus leiospermus</i> var. <i>leiospermus</i>	-	-	1B.1	Vernal pools, meadows and seeps, and other seasonally wet habitats; 115 to 3,500 feet elevation; blooms March-May.	Not expected to occur. There is one CNDDDB record of this species from Placer County (Roseville), which is outside the species' typical range and thought to be erroneous (CNDDDB 2017).
Greene's legenere <i>Legenere limosa</i>	-	-	1B.1	Relatively deep and wet vernal pools (Witham 2006:39); below 3,000 feet elevation; blooms April-June.	Known to occur. This species has been found in the northeast portion of the SAP area (within mitigation reserve lands) and could occur in other suitable vernal pools throughout the SAP area.
Pincushion navarretia <i>Navarretia meyersii</i> ssp. <i>meyersii</i>	-	-	1B.1	Vernal pools; 65 to 750 feet elevation; blooms in May.	Could occur. Potentially suitable vernal pool habitat is present throughout the SAP area.
Sacramento Orcutt grass <i>Orcuttia viscida</i>	E	E	1B.1	Vernal pools; 95 to 325 feet elevation; blooms April-July.	Could occur. Potentially suitable vernal pool habitat is present throughout the SAP area.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	-	-	1B.2	Shallow freshwater marshes and swamps; below 2,200 feet elevation; blooms May-October.	Could occur. Potentially suitable vernal pool habitat is present in perennial portions of tributaries to Pleasant Grove Creek and Orchard Creek.

Notes: USFWS = U.S. Fish and Wildlife Service; DFG = California Department of Fish and Game; CRPR = California Rare Plant Rank; CNDDDB = California Natural Diversity Database; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act

¹ Legal Status Definitions

U.S. Fish and Wildlife Service:
E Endangered (legally protected)
California Department of Fish and Wildlife:
E Endangered (legally protected)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

CRPR Extensions:

- .1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
- .2 Fairly endangered in California (20 to 80% of occurrences are threatened)

² Potential for Occurrence Definitions

Unlikely to occur: Species is unlikely to be present in the SPA due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available in the SPA; however, there are little to no other indicators that the species might be present.

Likely to occur: Habitat conditions, known occurrences in the project vicinity, or other factors indicate a relatively high likelihood that the species would occur at the SPA.

Sources: CNDDDB 2017; CNPS 2017; ECORP Consulting 2005; data compiled by Ascent Environmental in 2017

Animals

The literature and database reviews identified 42 special-status fish and wildlife species that could occur in or near the plan area, provided suitable habitat conditions were present. Fourteen of these species are proposed for coverage under the PCCP and are indicated in the list below and in Table 4.4-3 with an asterisk. Several of these species have been eliminated from further evaluation in the EIR document either because there is no suitable habitat in the project area or vicinity or because the species has a limited range that does not include the project area. Some bird species have been eliminated from further evaluation because they do not nest in the region and they are of conservation concern only within their nesting range. Although these species have been reported in the nine-quad search area, they are not expected to occur in the project area. Species that were considered but eliminated from further evaluation are:

- ▲ California red-legged frog (*Rana draytonii*)*,
- ▲ Foothill yellow-legged frog (*Rana boylei*)*,
- ▲ American white pelican (*Pelecanus erythrorhynchos*),
- ▲ Bald eagle (*Haliaeetus leucocephalus*),
- ▲ Bank swallow (*Riparia riparia*),
- ▲ Black tern (*Chlidonias niger*),
- ▲ Short-eared owl (*Asio flammeus*),
- ▲ Long-eared owl (*Asio otus*),
- ▲ Olive-sided flycatcher (*Contopus cooperi*),
- ▲ Purple martin (*Progne subis*),
- ▲ Redhead (*Aythya americana*),
- ▲ Vaux's swift (*Chaetura vauxi*),
- ▲ Yellow-breasted chat (*Icteria virens*),
- ▲ Yellow warbler (*Setophaga petechial*),
- ▲ Willow flycatcher (*Empidonax trailii*),
- ▲ Delta smelt (*Hypomesus transpacificus*), and
- ▲ River lamprey (*Lampetra ayersii*).

Table 4.4-3 summarizes the regulatory status, habitat, and potential for occurrence within the project area for each of the remaining 25 special-status fish and wildlife species.

Table 4.4-3 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Regulatory Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Invertebrates				
Conservancy fairy shrimp* <i>Branchinecta conservatio</i>	E	-	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Not expected to occur. This species is known from a few isolated populations in the Vina Plains area of Tehama and Butte counties, the Jepson Prairie area in Solano County, the Yolo Basin Wildlife Area in Yolo County, the Sacramento National Wildlife Refuge in Glenn County, and from Merced County and Ventura County (USFWS 2005); however, a single male adult was found in a pool northwest of Lincoln in 2012 (CNDDDB 2017). The typical known range of distribution does not include Placer County or the Southeastern Sacramento Valley Vernal Pool Region.
Vernal pool fairy shrimp* <i>Branchinecta lynchi</i>	T	-	Vernal pools and other seasonal wetlands in valley and foothill grasslands. Tends to occur in smaller wetland features (less than 0.05 acre in size).	Known to occur. This species was documented in the SAP area during 2007-2008 wet season sampling (CNDDDB 2017). There are also numerous CNDDDB records of this species in vernal pool habitat surrounding the SAP area.
Vernal pool tadpole shrimp* <i>Lepidurus packardii</i>	E	-	Vernal pools and other seasonal wetlands in valley and foothill grasslands that pond for sufficient duration to allow the species to complete its life cycle. Typically found in ponds ranging from 0.1 to 80 acres in size.	Could occur. Suitable habitat is present and this species has been documented in vernal pool habitat near the SAP area (three CNDDDB records within 5 miles).
Valley elderberry longhorn beetle* <i>Desmocerus californicus dimorphus</i>	T	-	Elderberry shrubs below 3,000 feet in elevation, typically in riparian habitats. Found in stems measuring 1 inch or greater at ground level.	Could occur. Elderberry shrubs may be present in the project area along Orchard Creek or Pleasant Grove Creek tributary or in other supporting infrastructure area.

Table 4.4-3 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Regulatory Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Amphibians and Reptiles				
Western spadefoot <i>Spea hammondi</i>	-	SSC	Vernal pools and other seasonal ponds with a minimum 3-week inundation period in valley and foothill grasslands.	Could occur. Intermittent drainages and some vernal pools in the project area may provide suitable habitat, and western spadefoot has been documented south of the SAP area (CNDDB 2017).
Coast horned lizard <i>Phrynosoma blainvillii</i>	-	SSC	Open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. Forages on the ground in open areas, usually between shrubs and often near ant nests. Needs loose soils for burrowing, open areas for thermoregulation, and shrub cover for refuge (Jennings and Hayes 1994).	Not expected to occur. The SAP area lacks open, sandy soil areas that are preferred by this species, and lacks shrub cover. Additionally, the dense cover of annual grasses and thatch are not suitable for this species.
Giant garter snake* <i>Thamnophis gígas</i>	T	T	Slow-moving streams, sloughs, ponds, marshes, inundated floodplains, rice fields, and irrigation/drainage ditches on the Central Valley floor with mud bottoms, earthen banks, emergent vegetation, abundant small aquatic prey and absence or low numbers of large predatory fish. Requires permanent water during the active season. Also require upland refugia not subject to flooding during the snake's inactive season.	Not expected to occur. Most of the SAP area lacks sufficient permanent water during the snake's active season; the exception is in Orchard Creek in the mitigation reserve area, and in Pleasant Grove Creek in and upstream of the Pleasant Grove Retention Facility. The species' current distribution is very fragmented with nine known extant populations occurring in the following areas: Butte Basin, Colusa Basin, Sutter Basin, American Basin, Yolo Basin, Cosumnes-Mokelumne Basin, Delta Basin, San Joaquin Basin, and Tulare Basin (USFWS 2017b). These nine populations correspond to nine recovery units that are broken up into management units (USFWS 2017b). The SAP area is nearest to the Natomas Basin management unit of the American Basin recovery unit, which is approximately 8 miles west of the SAP area. The SAP area is outside the species' current range of distribution and Placer County is not within its historical range.
Western pond turtle* <i>Emys marmorata</i>	-	SSC	Forages in ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nests in nearby uplands with low, sparse vegetation.	Could occur. The SAP area contains potentially suitable aquatic habitat in Orchard Creek and the Pleasant Grove tributary in the PRSP area and Pleasant Grove Retention Facility.
Birds				
Burrowing owl * <i>Athene cunicularia</i> (year round)	-	SSC	Nests and forages in grasslands, agricultural lands, open shrublands, and open woodlands with existing ground squirrel burrows or friable soils. Suitable burrow sites consist of short, herbaceous vegetation with only sparse cover of shrubs or taller herbs.	Known to occur. Burrowing owl has been documented in the northern portion of the SAP area (CNDDB 2017) and was observed in the PRSP area during surveys conducted in 2002 (ECORP Consulting 2005). This species could occur in suitable habitat elsewhere in the SAP area.
California black rail* <i>Laterallus jamaicensis coturniculus</i> (nesting)	-	SSC	Freshwater marshes, wet meadows, and margins of saltwater marshes bordering larger bays; needs consistent water depths of about 1 inch and dense vegetation.	Not expected to occur. Suitable microhabitat conditions are not present in the SAP area. This species is primarily found along the coast and in bays, but has a patchy inland distribution, primarily in foothill seep marshes.

Table 4.4-3 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Regulatory Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Golden eagle <i>Aquila chrysaetos</i> (nesting)	-	FP	Prefers open terrain for hunting, such as grasslands, meadows, deserts, savannas, and early successional stages of forest and shrub habitats. Nests in rugged, open habitats with canyons and escarpments, typically on cliffs and rock outcroppings; however, it will also nest in large trees within open area, including oaks, sycamores, redwoods, pines, and eucalyptus, overlooking open hunting habitat.	Unlikely to nest. There are no cliffs or other structures for nesting in the SAP area, and very few trees of sufficient size and structure are present. Golden eagles migrate through and winter in the Central Valley, but the valley floor is not within the core breeding range and typical habitat is in rolling foothills, mountains, and deserts. Migrating and nonbreeding individuals could forage in grassland habitat in the SAP area.
Grasshopper sparrow <i>Ammodramus savannarum</i> (nesting)	-	SSC	Nests and forages in dense grasslands; favors a mix of native grasses, forbs, and scattered shrubs.	Could occur. Grasslands throughout the SAP area provide potentially suitable nesting habitat for this species.
Loggerhead shrike <i>Lanius ludovicianus</i> (nesting)	-	SSC	Forages in grasslands and agricultural fields, and nests in scattered shrubs and trees.	Known to occur. Suitable habitat is present throughout the SAP area, and nesting was confirmed on the PRSP site in 2005 (ECORP Consulting 2005).
Northern harrier <i>Circus cyaneus</i> (nesting)	-	SSC	Uses a variety of open grassland, wetland, and agricultural habitats. Breeding habitats include marshy meadows, wet and lightly grazed pastures, and freshwater and brackish marshes; and dry upland habitats, such as grassland, cropland, drained marshland, and shrub-steppe in cold deserts.	Known to occur. The SAP area contains suitable foraging and nesting habitat, and northern harrier was observed foraging on the PRSP site during the reconnaissance survey on August 10, 2017. Species is a year-round resident in the region and likely occurs throughout suitable habitat in the SAP area.
Song sparrow ("Modesto" population) <i>Melospiza melodia</i> (year round)	-	SSC	Emergent freshwater marsh dominated by tules, and cattails; willow riparian scrub; valley oak riparian woodland with dense understory; and along vegetated irrigation canals and levees.	Could occur. The SAP area contains potentially suitable habitat within marsh and riparian communities. Song sparrows were observed on the PRSP site in February 2002 (ECORP Consulting 2005); song sparrows in the region are assumed to be part of the "Modesto" population based on location.
Swainson's hawk* <i>Buteo swainsoni</i> (nesting)	-	T	Forages in grasslands and agricultural lands; nests in riparian and isolated trees.	Could occur. The SAP area contains suitable foraging habitat, and large cottonwood and oak trees provide potentially suitable nest sites. This species has been observed foraging in the PRSP area (ECORP Consulting 2005).
Tricolored blackbird* <i>Agelaius tricolor</i> (nesting colony)	-	T	Forages in agricultural lands and grasslands; nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires open water and protected nesting substrate, such as flooded, spiny, or thorny vegetation.	Could occur. Emergent marsh and riparian habitat along Orchard Creek and tributary to Pleasant Grove Creek is potentially suitable for nesting. Multiple occurrences of the species have been documented in the region (CNDDDB 2017).
White-tailed kite <i>Elanus leucurus</i> (nesting)	-	FP	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees.	Known to occur. A pair was observed in valley foothill riparian habitat in the southeast corner of the PRSP site during the August 10, 2017 reconnaissance survey. The SAP area contains suitable foraging and nesting habitat.

Table 4.4-3 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Regulatory Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Yellow-headed blackbird <i>Xanthocephalus</i> (nesting)	-	SSC	Nests in marshes with tall, dense emergent vegetation and deep water, most commonly at the edges of lakes, reservoirs, or ponds. Forages in emergent wetland and moist, open areas, especially cropland and muddy shores of lacustrine habitat.	Not expected to occur. Freshwater marsh wetlands that maintain deep water through the breeding season are not present in the SAP area.
Fish				
Longfin smelt <i>Spirinchus thaleichthys</i>	C	SSC	Aquatic, estuary. Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand, but can be found in completely freshwater to almost pure seawater.	Not expected to occur. The SAP area does not contain suitable aquatic habitat for this species.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	-	SSC	Aquatic, estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not expected to occur. The SAP area does not contain suitable aquatic habitat for this species.
Steelhead - Central Valley DPS* <i>Oncorhynchus mykiss irideus</i>	T	-	Aquatic, Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur in the SAP area; occurs in Auburn Ravine just north of the SAP area and Auburn Ravine is designated as critical habitat for the species. Streams in the SAP area are not considered occupied by steelhead (NMFS 2014), and suitable aquatic habitat for the species is not present. Orchard Creek in the SAP area is hydrologically connected to occupied critical habitat for steelhead (migration and/or rearing habitat) outside the SAP area in Auburn Ravine, approximately 0.75 mile north of the northern SAP boundary (at its closest point). Also, Pleasant Grove Creek is hydrologically connected to Cross Canal, which is also connected to Auburn Ravine.
Chinook salmon – Central Valley *Fall-run <i>Oncorhynchus tshawytscha</i>	-	SSC	Spawns and rears in the Sacramento River and select tributaries where suitable water conditions and gravel substrate are present.	Not expected to occur in the SAP area. Suitable habitat for Chinook salmon occurs, and the species has been documented, in Auburn Ravine just north of the SAP area. Streams in the SAP area are not considered suitable or occupied by Chinook salmon. Orchard Creek in the SAP area is hydrologically connected to suitable and occupied habitat in Auburn Ravine, approximately 0.75 mile north of the northern SAP boundary (at its closest point). Also, Pleasant Grove Creek is hydrologically connected to Cross Canal, which is also connected to Auburn Ravine.

Table 4.4-3 Special-Status Animal Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Regulatory Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Mammals				
Pallid bat <i>Antrozous pallidus</i>	-	SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in rock crevices, oak hollows, caves, mines, bridges, or buildings that provide protection from high temperatures.	Could occur. Large trees and bridges in the SAP area provide potentially suitable roost habitat for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-	SSC	Typically roosts in caves, tunnels, or mines; however, colonies of <100 individuals occasionally nest in buildings or bridges. Forages in all habitats except alpine and subalpine, though most commonly in mesic forests and woodlands.	Could occur. Although optimal habitat (caves, mines) is likely not present, bridges and some trees in the SAP area provide potentially suitable roost habitat for this species.
American badger <i>Taxidea taxus</i>	-	SSC	Drier open shrub, forest, and herbaceous habitats with friable soils. Needs open, uncultivated land.	Could occur. American badger is not known to occur in the SAP area, but potentially suitable habitat is present, and there is a CNDDDB record from the Lincoln area.

Note: CNDDDB = California Natural Diversity Database

¹ Regulatory Status Definitions

Federal:

- E Endangered (legally protected)
- T Threatened (legally protected)
- D Delisted
- PT Proposed Threatened

State:

- D Delisted
- FP Fully protected (legally protected)
- SSC Species of special concern (no formal protection other than CEQA consideration)
- E Endangered (legally protected)
- T Threatened (legally protected)
- CT Candidate Threatened
- CE Candidate Endangered

² Potential for Occurrence Definitions

Not expected to occur: Habitat suitability for the species in the plan area is low and/or the site is outside of the known distribution or elevation range for the species.

Could occur: Suitable habitat is available in the plan area; however, there are no other strong indicators that the species might be present.

Likely to occur: The plan area contains suitable habitat for the species and populations/occurrences are known to occur in the immediate vicinity.

Known to occur: The species, or evidence of its presence, was observed in the SAP area during reconnaissance surveys, or was reported by others in recent years.

* Species is proposed as a covered species under the Placer County Conservation Plan.

Sources: CNDDDB 2017, ECORP Consulting 2005, Ascent Environmental field surveys (2017)

ECORP Consulting biologists conducted diurnal visual encounter surveys for western pond turtle and larval surveys for western spadefoot in the PRSP area during spring 2005. These surveys were conducted according to standard methodologies and a nearby reference population of western spadefoot was visited before the surveys to confirm that western spadefoot larvae were present in known occupied habitat at the time of the survey. All intermittent and perennial aquatic habitats in the PRSP area were sampled for amphibian larvae during the surveys, using dip nets, and all adult, juvenile, and larval amphibians encountered were identified and recorded. Surveys for western pond turtle were focused on the intermittent tributary to Pleasant Grove Creek and consisted of visual inspection, with binoculars, of water surfaces, potential basking sites, and visible portions of the shoreline. All amphibians and reptiles encountered were identified and recorded. Neither western spadefoot nor western pond turtle were found in the PRSP area during the 2005 surveys; however, because the surveys occurred more than 12 years ago and did not include the net SAP area, these species may be present in suitable habitats in the project area, including the PRSP area. Western pond turtles have been historically observed in Pleasant Grove Creek downstream from the PRSP area (ECORP Consulting 2005).

Special-status bird and nesting raptor surveys were also conducted in the PRSP area by ECORP Consulting in 2005. During those surveys, Swainson's hawk, white-tailed kite, and northern harrier were observed foraging in the PRSP area, but none were documented to be nesting on site. A pair of white-tailed kites were observed roosting in a large oak tree along the Pleasant Grove Creek tributary in the southeast corner of the SAP area during the reconnaissance survey in August 2017. Northern harriers were observed foraging throughout the PRSP area during the 2017 reconnaissance survey. ECORP Consulting biologists observed a pair of burrowing owls using a burrow on the PRSP site during wetland delineation work they conducted in February 2002. Two additional burrowing owls were observed in the PRSP area, but a burrow was not identified for them. It was not confirmed if the owls were nesting on site or wintering. No burrowing owls were found in the PRSP area during the 2005 surveys. Other raptors observed foraging and or roosting in the PRSP area during 2005 and 2017 are red-tailed hawk, red-shouldered hawk, great horned owl, and American kestrel. The only raptor that has been confirmed nesting in the PRSP area is red-tailed hawk. An active loggerhead shrike nest was observed in the PRSP area in 2005. No other special-status bird species have been documented nesting in the SAP area, but there is suitable nesting habitat present for several species, as noted in Table 4.4-3.

Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon

Most of the SAP area and all the PRSP area is within the Western Placer County core area identified in the vernal pool recovery plan (USFWS 2005) (Exhibit 4.4-4). Core areas are the specific sites that USFWS has deemed necessary to recover federally endangered and threatened vernal pool species. The Western Placer County core area is ranked in Zone 2, meaning that it has the second highest priority for recovery. Protection of Zone 2 core areas has been designated as a Priority 2 action by USFWS biologists because they believe that within each Zone 2 core area, species occurrences and suitable vernal pool habitat is necessary to prevent a significant decline in the species population or habitat quality, or some other significant negative impact to at least one species covered in the recovery plan. The Western Placer County core area is considered important to the preservation and recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp. Other species of concern in this core area are: Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenera, and western spadefoot.

The recovery plan acknowledges that alternative mechanisms such as Habitat Conservation Plans (HCPs) may be deemed equivalent to implementation of the recovery plan if they contain necessary elements specified for meeting equivalency (USFWS 2005). The PCCP (HCP/Natural Communities Conservation Plan [NCCP]) has been drafted to balance project related effects throughout the future growth area of Western Placer County and the city of Lincoln with the necessary recovery elements in cooperation with the USFWS and other agencies.

Critical Habitat

Critical habitat has been designated in western Placer County for vernal pool fairy shrimp and Central Valley steelhead (Exhibit 4.4-4). Neither the net SAP nor PRSP areas contain suitable habitat for Central Valley steelhead and the nearest stream designated as critical habitat for steelhead (migration and/or rearing habitat) is approximately 0.75-mile (at its closest point) north of the northern SAP boundary in Auburn Ravine. The nearest designated critical habitat for vernal pool fairy shrimp is located approximately 1 mile north of the northern SAP boundary (Exhibit 4.4-4).

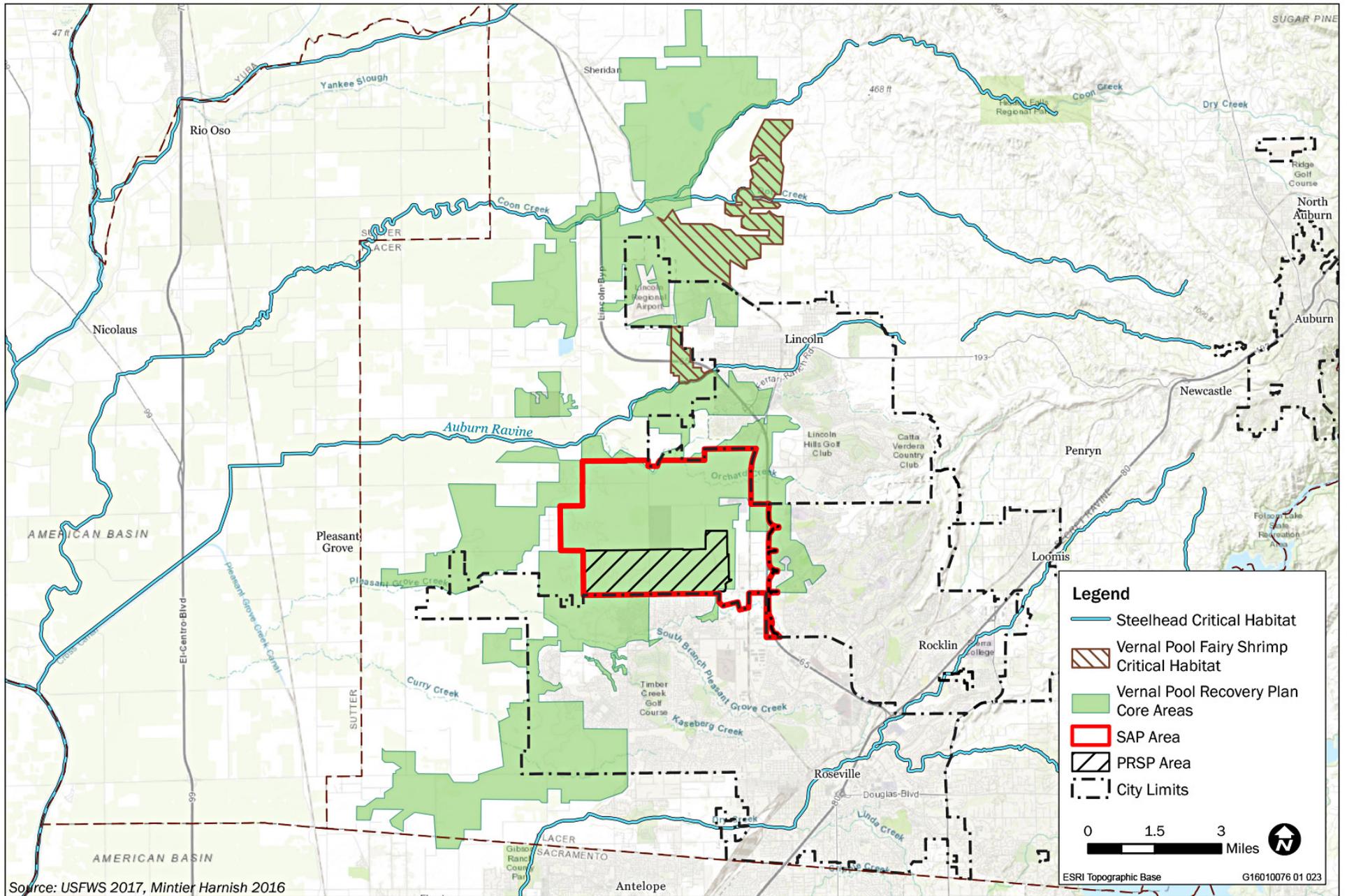


Exhibit 4.4-4

Critical Habitat



4.4.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the ESA (16 U.S.C. Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. USFWS has authority over projects that may result in take of a federally listed species. Under the ESA, "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or to attempt to engage in any such conduct" (Public Law 93-205, as amended by Section 3 of Public Law 107-136 [16 USC 1532]). The loss of habitat can also be considered "take" under the ESA. For projects with a federal nexus, the process is accomplished through consultation under ESA Section 7 (16 USC 1536[a][2]), which produces a biological assessment (BA) to describe the impact mechanisms and any adverse effects on the listed population. Information within the BA is used to prepare the biological opinion (BO). Incidental take is take that is incidental to but not the intended purpose of an otherwise lawful (i.e., permitted) activity.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act, enacted in 1918, domestically implements a series of international treaties that provide protection for migratory birds. It authorizes the United States Secretary of the Interior to regulate the taking of migratory birds and provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird (16 USC 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the Migratory Bird Treaty Act includes several hundred species, which is essentially all the native birds in the United States. Numerous migratory birds are known and have potential to nest in the project area.

Section 404 of the Clean Water Act

Section 404 of the CWA establishes a requirement to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Under Section 404 of the CWA, the USACE regulates and issues permits for activities that involve the discharge of dredged or fill materials into waters of the United States.

As part of the review of a project, USACE must ensure compliance with applicable federal laws, including EPA's Section 404(b)(1) Guidelines. USACE regulations require that impacts to waters of the United States are avoided and minimized to the maximum extent practicable, and that unavoidable impacts are compensated (33 Code of Federal Regulations [CFR] 320.4[r]). Mitigation resulting in no net loss of functions and values of waters of the United States is required by USACE and EPA. The project area supports waters of the United States, including wetlands, that are subject to regulation under Section 404 of the CWA.

Section 401 Water Quality Certification

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the State's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the nine RWQCBs. The project area is within the jurisdiction of the Central Valley RWQCB. The plan area supports waters of the United States, including wetlands, that are subject to regulation under Section 401 of the CWA.

Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon

The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) was released by USFWS on December 15, 2005. This plan focuses on 33 species of plants and animals that occur exclusively or primarily within vernal pool ecosystems, including the Federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp.

The plan outlines recovery priorities and provides goals, objectives, strategies, and criteria for recovery. One of the overall objectives of the recovery plan is to promote natural ecosystem processes and functions by protecting and conserving intact vernal pools and vernal pool complexes. Habitat protection under the recovery plan includes the protection of the topographic, geographic, and edaphic features that support hydrologically interconnected systems of vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes.

The vernal pool recovery plan goal is to preserve 85 percent of the existing vernal pool fairy shrimp habitat within the Western Placer County core area. Habitat to be protected includes both occupied and unoccupied suitable habitat that serves as corridors for dispersal, opportunities for metapopulation dynamics, reintroduction/introduction sites, and protection of undiscovered populations.

While not regulatory in nature, the Recovery Plan should be taken into consideration when analyzing potential impacts on vernal pools and associated biota to ensure that projects do not prevent or impair the plan's future long-term implementation success. It is also used by the USFWS to determine recommendations and requirements during endangered species consultation for vernal pool dependent species.

STATE

California Endangered Species Act

The CESA prohibits the taking of state-listed endangered or threatened species, as well as candidate species being considered for listing. Applicants may obtain a Section 2081 incidental take permit if the impacts of the take are minimized and fully mitigated and the take would not jeopardize the continued existence of the species. A "take" of a species, under CESA, is defined as an activity that would result in direct or indirect mortality to an individual of a species. The CESA definition of take does not include "harm" or "harass" as is included in the federal ESA. Incidental take is take that is incidental to but not the intended purpose of an otherwise lawful (i.e., permitted) activity. Two species listed as threatened or endangered under CESA, Swainson's hawk and tricolored blackbird, have potential to occur in the plan area.

Fully Protected Species, California Fish and Game Code Sections 3511, 4700, 5050, and 5515

Four sections of the California Fish and Game Code (Fish and Game Code Sections 3511, 4700, 5050, and 5515) list 37 fully protected species. These statutes prohibit take or possession at any time of fully protected species. CDFW is unable to authorize incidental take of fully protected species, except under narrow conditions for scientific research or the protection of livestock, or the adoption of a Natural Community Conservation Plan (NCCP). Specifically, Section 3513 prohibits any take or possession of birds designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations pursuant to the MBTA. One fully protected species, white-tailed kite, is known to occur in the project area.

Protection of Bird Nests and Raptors, California Fish and Game Code Section 3503

Section 3503 of the 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 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal and failure of nesting attempts, resulting in loss of eggs and/or young. These violations can be caused by disturbance of nesting pairs by nearby human activity. Numerous species of birds and raptors are known or have potential to nest in the project area.

California Native Plant Protection Act

In addition to CESA, the California Native Plant Protection Act provides protection to endangered and rare plant species, subspecies, and varieties of wild native plants in California. The California Native Plant Protection Act definitions of “endangered” and “rare” closely parallel the CESA definitions of endangered and threatened plant species. The plant species listed in Table 4.4-2 meet the criteria for protection under the California Native Plant Protection Act. Seven of these species are known or have potential to occur in the project area.

Section 1602 of the California Fish and Game Code, Lake and Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFW, or use any material from the streambeds, without first notifying CDFW of such activity and obtaining a final agreement authorizing such activity.

“Stream” is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. CDFW’s jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW lake or streambed alteration agreement must be obtained for any project that would result in an impact on a river, stream, or lake. Waterways within the project area that would be subject to regulation under Section 1602 include Orchard Creek and the perennial and intermittent tributaries to Pleasant Grove Creek. In addition, riparian habitat located on the banks of these waterways are also subject to regulation under Section 1602.

LOCAL

Placer County General Plan

The Natural Resources Section of the Placer County General Plan (Placer County 2013) outlines several goals, policies and implementation programs aimed at protecting natural resources, including special-status plants and animals, wetland and riparian habitats, vernal pool complexes, and other sensitive natural resources that occur or have the potential to occur in the plan area. The goals, policies, and programs applicable to the biological resources analysis are summarized below.

Wetland and Riparian Areas

GOAL 6.B: To protect wetland communities and related riparian areas throughout Placer County as valuable resources.

- ▲ **Policy 6.B.1:** The County shall support the “no net loss” policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.
- ▲ **Policy 6.B.2:** The County shall require new development to mitigate wetland loss in both federal jurisdictional and non-jurisdictional wetlands to achieve “no net loss” through any combination of the following, in descending order of desirability: (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal “waters of the United States” as defined by the Clean Water Act.

- ▲ **Policy 6.B.3:** The County shall discourage direct runoff of pollutants and siltation into wetland areas from outfalls serving nearby urban development. Development shall be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.
- ▲ **Policy 6.B.4:** The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.
- ▲ **Policy 6.B.5:** The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, (a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; (b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plan; and (c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.

Implementation Program 6.6: The County shall work toward the permanent conservation of stream zones, wetlands, and significant ecological resource areas where such areas cannot be effectively preserved through the regulatory process. Protection may take the form of fee acquisition or conservation easements and may be carried out in cooperation with other local, state, and federal agencies and private entities. Acquisition should include provisions for monitoring maintenance and management in perpetuity.

Fish and Wildlife Habitat

GOAL 6.C: To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

- ▲ **Policy 6.C.2:** The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the reasonable value of the habitat for wildlife is maintained.
- ▲ **Policy 6.C.3:** The County shall encourage the control of residual pesticides to prevent potential damage to water quality, vegetation, fish, and wildlife.
- ▲ **Policy 6.C.4:** The County shall encourage private landowners to adopt sound fish and wildlife habitat management practices, as recommended by California Department of Fish and Wildlife officials, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, and the Placer County Resource Conservation District.
- ▲ **Policy 6.C.5:** The County shall require mitigation for development projects where isolated segments of stream habitat are unavoidably altered. Such impacts should be mitigated on-site with in-kind habitat replacement or elsewhere in the stream system through stream or riparian habitat restoration work where it is clear that offsite replacement provides greater functions and values than onsite replacement.
- ▲ **Policy 6.C.6:** The County shall support preservation of the habitats of threatened, endangered, and/or other special status species. Where County acquisition and maintenance is not practicable or feasible, federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.
- ▲ **Policy 6.C.7:** The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.
- ▲ **Policy 6.C.9:** The County shall require new private or public developments to preserve and enhance existing riparian habitat unless public safety concerns require removal of habitat for flood control or other essential public purposes (See Policy 6.A.1.). In cases where new private or public development

results in modification or destruction of riparian habitat the developers shall be responsible for acquiring, restoring, and enhancing at least an equivalent amount of like habitat within or near the project area.

- ▲ **Policy 6.C.10:** The County will use the California Wildlife Habitat Relationships (WHR) system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site-specific system.
- ▲ **Policy 6.C.11:** Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a wildlife biologist, the evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of special status, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible. In approving any such discretionary development permit, the decision-making body shall determine the feasibility of the identified mitigation measures. Significant ecological resource areas shall, at a minimum, include the following:
 - a) Wetland areas including vernal pools.
 - b) Stream zones.
 - c) Any habitat for special status, threatened or endangered animals or plants.
 - d) Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.
 - e) Large areas of non-fragmented natural habitat, including blue oak woodlands, valley foothill and montane riparian, valley oak woodlands, annual grasslands, vernal pool/grassland complexes habitat.
 - f) Identifiable wildlife movement zones, including but not limited to, nonfragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.
 - g) Important spawning and rearing areas for anadromous fish.

Vegetation

GOAL 6.D: To preserve and protect the valuable vegetation resources of Placer County.

- ▲ **Policy 6.D.2:** The County shall require developers to use native and compatible nonnative species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits or for project mitigation.
- ▲ **Policy 6.D.3:** The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.
- ▲ **Policy 6.D.4:** The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.
- ▲ **Policy 6.D.5:** The County shall establish procedures for identifying and preserving special-status, threatened, and endangered plant species that may be adversely affected by public or private development projects.

- ▲ **Policy 6.D.6:** The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.
- ▲ **Policy 6.D.7:** The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.
- ▲ **Policy 6.D.8:** The County shall require that new development preserve natural woodlands to the maximum extent possible.
- ▲ **Policy 6.D.10:** The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well adapted plants are maintained.
- ▲ **Policy 6.D.11:** The County shall support the continued use of prescribed burning, mastication, chipping, and other methods to mimic the effects of natural fires to reduce fuel loads and associated fire hazard to human residents and to enhance the health of biotic communities.
- ▲ **Policy 6.D.12:** The County shall support the retention of vegetated corridors, consistent with Fire Safe Practices, along circulation routes in order to preserve their rural character.
- ▲ **Policy 6.D.13:** The County shall support the preservation of native trees and the use of native, drought-tolerant plant materials in all revegetation/landscaping projects.
- ▲ **Policy 6.D.14:** The County shall require that new development avoid ecologically-fragile areas (e.g., areas of special status, threatened, or endangered species of plants, and riparian areas). Where feasible, these areas should be protected through public or private acquisition of fee title or conservation easements to ensure protection.

Placer County Tree Preservation Ordinance

The Placer County Tree Preservation Ordinance (Placer County Code Article 12.16) (Tree Ordinance) requires a tree permit for the removal of any native tree, landmark tree, or riparian zone trees. A tree is defined under the ordinance as any tall, woody plant that is native to California, except *Pinus sabiniana*, and has a diameter at breast height (dbh) of at least 6 inches for a single trunk, or an aggregate dbh of at least 10 inches for multi-trunk trees. A landmark tree is a tree or grove of trees designated by resolution of the board of supervisors to be of historical or cultural value, an outstanding specimen, an unusual species and/or of significant community benefit. Riparian zone trees are trees of any size that are within 50 feet of the center line of a seasonal stream, within 100 feet of the center line of a perennial stream, or within 100 feet of the shoreline of a pond, lake, or reservoir. The ordinance requires inch for inch replacement on-site or off-site and maintenance and irrigation for a minimum of 3 years, or payment to a tree fund to compensate for tree removal.

Protected or preserved trees must be protected from damage during construction. Retained trees within 50' of any development activity must be protected by a 4-foot tall brightly colored fence with 2-foot by 2-foot signs installed in four locations (discretionary projects). A \$10,000 deposit (except single family residences) may be required to insure preservation. Retaining walls must be completed within 72 hours and exposed roots must be protected from moisture loss in the meantime. Aeration systems, oak tree walls, drains, special paving and cabling systems may be required with certification letters from the arborist. Trenching must avoid encroachment into roots. A penalty of \$50 per scar is required. Protected trees are present in the project area and a tree permit would be required for removal of any of these trees. A tree inventory completed in 2006 in the PRSP area documented over 200 trees meeting the criteria for protection under the Tree Ordinance (ECORP Consulting 2006).

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

City of Roseville’s Section 19.66.050, Arborist Report Chapter 19.66, Article IV, Tree Preservation Code provides protection and preservation for native oak trees with a goal of reforesting urban areas. This ordinance would apply to the Pleasant Grove Retention Facility and other off-site improvements within the City of Roseville. The ordinance protects native oak trees 6 inches or more in diameter at breast height (dbh) and specific landmark trees. 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.

As a component of the permit process, protected trees must be replaced or relocated on-site or through payments to an approved in-lieu fund used to purchase, plant, irrigate, and maintain trees within Roseville.

The ordinance states:

Section 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% 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% 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% of replacement trees shall be native. The preferred replacement alternative is on site.

It should be noted that City projects, programs, and activities do not require issuance of a formal Tree Permit but otherwise comply with all ordinance requirements, including mitigation requirements.

Placer County Conservation Program

In June 2000 the Placer County Board of Supervisors directed staff to initiate the implementation of the Placer Legacy Program. One of the objectives of the program was to prepare an NCCP and a HCP in three phases. The first phase, which is currently underway but not yet completed or approved, is now known as the PCCP and encompasses western Placer County, including the SAP area.

The goal of the PCCP is to provide an effective framework to protect, enhance, and restore the natural resources in specific areas of western Placer County, while streamlining the permitting of a range of land development, infrastructure development, maintenance and habitat restoration actions known as “covered activities.” Within this framework, the PCCP would achieve a range of conservation goals, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of infrastructure needed to serve the county’s growing population. The PCCP includes two separate, but complementary plans or programs that support two sets of state and federal permits:

- ▲ Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan, referred to as the HCP/NCCP or “Plan.” The Plan is a joint HCP and NCCP that would protect fish and wildlife and

their habitats and fulfill the requirements of ESA, CESA, and the California Natural Community and Conservation Planning Act (NCCP Act).

- ▲ Western Placer County Aquatic Resources Program referred to as the CARP. The CARP would protect streams, wetlands, and other water resources and fulfill the requirements of the federal Clean Water Act (Section 404 and 401) and analogous state laws and regulations.

Collectively these permits represent most of the major wetland and ESA/CESA permits that are required for land development activity that may occur on public and private property in Western Placer County; however, they would not, as currently proposed, cover any plant species nor some wildlife species of special concern. An EIR/EIS is being prepared concurrent with development of the HCP/NCCP and CARP.

Conservation Strategy

The PCCP proposes to progressively establish a large system of interconnected blocks of conserved and restored land. Over the 50-year permit term for the PCCP, the program would acquire approximately 47,000 acres for conservation irrespective of the amount of loss that occurs as a result of covered activities. If development occurs as projected, 7,093 acres of natural communities would be restored. If less development occurs, then about 4,405 acres of natural communities would be restored. These protected and restored lands would augment the approximately 16,000 acres of land that is in conservation today. Cumulatively, approximately 38 percent of the present natural and semi-natural landscape in western Placer County would ultimately be subject to conservation management.

The Reserve System would provide a means for protecting, managing, enhancing, and restoring or creating the natural communities and habitats that support 14 species that are proposed for coverage under the Plan, including the vernal pool fairy shrimp, vernal pool tadpole shrimp, Swainson's hawk, and other species known or with potential to occur in the project area, as identified in Table 4.4-3. The Reserve System will mainly be located in the western and northern valley and in the northern foothills, regionally separated from future urban and suburban growth. A large portion of the project area (approximately 1,300 acres and 16 percent of the project area) adjacent to existing conservation reserves is being considered in the PCCP as a possible reserve acquisition area to meet grassland/vernal pool complex conservation objectives.

The PCCP seeks to integrate the federal CWA's regulations for wetlands with a conservation strategy for sensitive species regulated by the ESA/CESA. As a result, the program would provide for the protection, enhancement, restoration, and creation of the aquatic/wetland complex natural community as a fully integrated strategy. In addition to the delineated boundary of a wetland, the Conservation Strategy provides for the protection of surrounding upland, which is ecologically important for many wetland habitats, especially vernal pools. Preservation, restoration and creation of wetlands would specifically provide in-kind compensatory mitigation to achieve conservation of the covered species and no overall net loss of wetland habitat through the term of the permit.

One of the key objectives of the PCCP is to shift programmatic regulatory responsibility from state and federal agencies to the local jurisdictions (Placer County and the City of Lincoln). The PCCP is also intended to provide for a better mitigation and conservation framework for impacts associated with development. Once complete, the PCCP would allow the participating agencies to integrate regulatory actions associated with endangered species and wetlands with their local entitlement processing. Lastly, the PCCP would help meet the County's conservation goals expressed by the General Plan and the Placer Legacy program, by developing a large, interconnected, managed and monitored reserve area that would provide open space and agricultural conservation in perpetuity.

4.4.2 Analysis, Impacts, and Mitigation

STANDARDS OF SIGNIFICANCE

Based on the Placer County CEQA Checklist and Appendix G of the State CEQA Guidelines, the proposed project would result in a potentially significant impact to biological resources if it would:

- ▲ have a substantial adverse effect on federal or state protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) or as defined by state statute, through direct removal, filling, hydrological interruption, or other means;
- ▲ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by CDFW, USFWS, or National Oceanic and Atmospheric Administration (NOAA) Fisheries;
- ▲ have a substantial adverse effect on any riparian habitat or other sensitive natural community, including oak woodlands, identified in local or regional plans, policies or regulations, or by CDFW, USFWS, USACE, or NOAA Fisheries;
- ▲ interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nesting or breeding sites;
- ▲ conflict with any local policies or ordinances that protect biological resources;
- ▲ conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; and
- ▲ 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, substantially reduce the number of restrict the range (i.e., geographic distribution) of an endangered, rare, or threatened species.

METHODS AND APPROACH

This analysis of impacts on biological resources resulting from implementation of the project is based on review of existing biological resources documented on or near the project area, including CNDDDB and CNPS records, the draft PCCP, and other existing information sources, as described previously in the setting section under the subheading “Methods for Documenting Existing Biological Conditions.”

For the PRSP, analysis of impacts included project level mapping of habitat types and aquatic resources delineation completed according to USACE methodologies, which was verified and concurred with by USACE on March 25, 2015 (USACE 2015). Protocol-level surveys for special-status plant species, western spadefoot and western pond turtle, and special-status bird and raptor nesting surveys were conducted by ECORP Consulting between 2002 and 2005 in the PRSP area, and a biological reconnaissance survey was completed by Ascent biologists during August 2017 to verify conditions documented by other sources. Impacts to habitats and aquatic resources (e.g., waters of the United States) are analyzed at a project level of detail for the PRSP because protocol-level biological investigations have been conducted in the PRSP, and specific land uses have been designated for the area. All biological resources impacts are analyzed at a program level of detail for the net SAP area.

For the net SAP area, the biological resources impact analysis anticipates full development of all land use designations except for Preserve/Mitigation Reserve, including the Urban Reserve. The Preserve/Mitigation Reserve land use designation comprises approximately 2,300 acres in the northern portion of the SAP area that contains the largest contiguous patches of high-density vernal pool complexes in the SAP area. It

includes approximately 1,800 acres that are already preserved as permanent open space in four existing reserves— Antonio Mountain Ranch Mitigation Bank, Orchard Creek Conservation Bank, Warm Springs Mitigation Bank, and Moore Ranch Conservancy. Three of the four existing reserves do not have mitigation credits available and, therefore, are not considered to mitigate any future impacts resulting from implementation of the project. The remaining 1,300 acres are being considered for reserve acquisition, including the approximately 797-acre Antonio Mountain Ranch Conservation and Mitigation Bank. For purposes of this analysis, it is assumed that all of the land designated as Preserve/Mitigation Reserve would be preserved in perpetuity such that no direct loss of habitat would occur in these areas. Analysis of impacts to biological resources within this land use designation is therefore limited to the potential indirect impacts that could result from development of adjacent lands.

Potential impacts on biological resources resulting from implementation of the PRSP were determined by mapping and quantifying common and sensitive habitats (i.e., aquatic habitats), and evaluating potential effects to common and special-status species that could result from loss of these habitats and other potential direct and indirect effects. For purposes of the biological resources analysis, it is assumed that all existing habitat in the PRSP area would be converted to developed land uses with approval of the PRSP, except within the designated open space preserve areas. The PRSP includes approximately 271 acres of open space/preserve areas encompassing intermittent and perennial tributaries to Pleasant Grove Creek, riverine/riparian complexes, and the highest density of vernal pools, seasonal wetlands, and seasonal wetland swales in the PRSP area. The open space preserve areas would be preserved in perpetuity through conservation easements/deed restrictions; therefore, no direct impacts to habitat within this designated land use would occur, and analysis of impacts to biological resources in these areas is limited to indirect impacts.

PROPOSED SUNSET AREA PLAN GOALS AND POLICIES

The SAP includes goals and policies for protection of natural resources that are known to occur or may occur in the plan area. These policies are intended to complement the provisions of the PCCP and to supplement the goals and policies of the Placer County General Plan. The County would require, as conditions of approval, that applicants for future projects under the SAP implement these policies. The following SAP policies and implementation programs are relevant to the protection of biological resources addressed in this impact analysis:

- ▲ **Policy NR-1.1: Covered Species and Natural Habitat Communities Protection.** Consistent with the PCCP, the County shall require avoidance and minimization of effects on covered species and natural habitat communities. Where avoidance is not feasible, the County shall require mitigation.
- ▲ **Policy NR-1.2: Stream System Protection.** The County shall require the protection and enhancement of the Stream System and other areas capable of meeting the PCCP Reserve Acquisition and avoidance criteria (e.g. Stream System, avoided areas 200 acres or greater, habitat and wetlands adjacent or connected to the Stream System or existing/future Reserves, Valley Oak Woodlands one acre or greater).
- ▲ **Policy NR-1.3: Natural Resource Preservation.** The County shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible, while still meeting project objectives. The County shall permanently protect, as open space, areas of natural resource values, including aquatic resources, riparian corridors, woodlands and both FEMA and calculated 100-year floodplains.
- ▲ **Policy NR-1.4: PCCP and CARP Program Consistency.** Prior to granting PCCP take authorization or extending wetland permit coverage, the County shall require Covered Activities to submit PCCP and CARP project applications for evaluation and consistency with the Conditions on Covered Activities and the overall terms and conditions of the Program.
- ▲ **Program NR-4: PCCP and CARP Program Consistency.** The County shall require project applicants to delineate all aquatic resources on the project site, consistent with CARP requirements and USACE

methodology. The County will calculate the extent of impacts to aquatic resources, based on the aquatic resources delineation overlain with project design maps, and determine the required fees, mitigation/conservation bank credit payments, and/or land dedication in-lieu of fees requirements after all feasible avoidance and minimization measures described in the PCCP and CARP have been applied. The USACE will review wetland delineations and make permitting determinations based on procedures described in the CARP. If ground disturbance directly or indirectly encroaches on the immediate watershed of a vernal pool type wetland, that wetland shall be subject to compensatory mitigation fees. Compensatory mitigation shall be provided according to the procedures described in the adopted PCCP and CARP, through payment of applicable mitigation fees to the In-Lieu Fee Program or purchase of mitigation credits at an agency-approved mitigation bank. The fees collected through the PCCP and In-Lieu Fee Program shall be used to fund land acquisition, mitigation projects that protect, enhance, and restore aquatic resources, and long-term management and monitoring within the PCCP Reserve Acquisition Areas. Lands acquired through the in-lieu fee program shall be of similar or higher quality than those affected by Covered Activities.

- ▲ **Policy NR-2.1: Special-Status Plant Species Protection.** The County shall ensure protection of special-status plant species and their habitat including State- and Federally-listed threatened or endangered species.
- ▲ **Program NR-5: Special-Status Plant Species Protection Guidelines.** The County shall require project applicants, as a condition of project approval, to retain qualified botanists to conduct protocol-level botanical surveys. The guidelines, at a minimum, shall require the following:

 - All plant species encountered on the project site shall be identified to the taxonomic level necessary to determine species status.
 - The surveys shall be conducted no more than 5 years prior and no later than the blooming period immediately preceding the approval of a grading or improvement plan or any ground disturbing activities, including grubbing or clearing. If special-status plants are identified on the project site, the project applicants shall be required to implement the following measures to mitigate the potential loss of special-status plant species:

 - Avoid special-status plant occurrences through project design to the extent technically feasible and appropriate. Avoidance shall be deemed technically feasible and appropriate if the habitat occupied by special-status plants may be preserved on-site while still obtaining the project purpose and objectives and if the preserved habitat features could reasonably be expected to continue to function as suitable habitat for special-status plants following project implementation.
 - If, after examining all feasible means to avoid impacts to potential special-status plant species habitat through project site planning and design, adverse effects cannot be avoided, then impacts shall be mitigated in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species.
 - Notify CDFW, as required by the California Native Plant Protection Act, if any special-status plants are found on the project site. Notify the USFWS if any plant species listed under the Endangered Species Act are found.
 - Develop a mitigation and monitoring plan to compensate for the loss of special-status plant species found during preconstruction surveys, if any. The mitigation and monitoring plan shall be submitted to CDFW or USFWS, as appropriate depending on species status, for review and comment. The County shall consult with these entities, as appropriate depending on species status, before approval of the plan to determine the appropriate mitigation measures for impacts on any special-status plant population. Mitigation measures may include preserving and enhancing existing on-site populations, creation of off-site populations on project mitigation sites

- ▲ **Policy NR-3.4: Stream Corridor Natural Conditions.** Where practical, the County shall require that stream corridors be preserved in open, natural conditions. The County considers uses such as road crossings, recreation trails, foot bridges, and passive parks to be compatible uses within open space areas.
- ▲ **Policy NR-3.5: Stream Protection Best Management Practices and Low Impact Development.** The County shall continue to require the use of feasible and practical BMPs and LID strategies (strategies that promote natural movement of stormwater through preservation and recreation of natural landscape features and minimization of impervious surfaces) to protect streams from the adverse effects of construction activities and urban runoff and to encourage the use of BMPs for agricultural activities. The County shall require that LID strategies be incorporated into project design. These LID strategies will be focused on minimizing adverse effects on water quality and surface water runoff.
- ▲ **Policy NR-3.10: Construction-Related Wastewater.** The County shall require new development to demonstrate to the satisfaction of the County and the Central Valley Regional Water Quality Control Board (CVRWQCB) their complete compliance with the provisions of a General Permit for Dewatering and Other Low Threat Discharges to Surface Waters (Construction Storm Water Discharge NPDES permit) authorized and approved by the CVRWQCB. Compliance shall include a monitoring and reporting program and shall include Best Management Practices capable of achieving the effluent limitations described in the permit.
- ▲ **Policy NR-4.1: Natural Land Form Preservation and Enhancement.** The County shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the extent feasible. Where appropriate, the County shall permanently protect, as open space, areas with substantial natural resource values, including wetlands, riparian corridors, woodlands, and floodplains.
- ▲ **Policy NR-4.2: Wildlife Corridor Protection.** The County shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems.
- ▲ **Policy NR-4.4: Minimal Disturbance of Natural Resources.** Where significant open space resources exist, the County shall require development to minimize disturbance to natural terrain and vegetation and to maximize natural beauty and open space.

PROPOSED PLACER RANCH SPECIFIC PLAN DEVELOPMENT STANDARDS

The PRSP Development Standards require the following protective measures related to natural resources and open space preservation:

Long-term Management of Open Space Preserves. To ensure long-term preservation of on-site resources, conservation easements/ deed restrictions are to be placed over the open space preserves and a funding mechanism established for long-term maintenance. The open space preserve is to be managed by a third party (e.g. open space group) or as part of the PCCP's Reserve System if consistent with the PCCP's avoidance criteria. In addition, the preserves are subject to a Long-Term Management Plan and funding that specifies the activities permitted in open space preserves and addresses where features such as stormwater quality mechanisms, recreational trails, fire/fuel breaks, and similar activities can occur.

Establish Open Space for Habitat Conservation: Create a balanced plan for on-site habitat conservation and development through the creation of open space corridors that will permanently protect sensitive resource areas and drainage ways.

Participate in the Placer County Conservation Plan (PCCP): Participate in the PCCP to mitigate for effects on covered species, habitat, and wetland in order to facilitate the permanent conservation of several types of natural resources and biological communities located throughout western Placer County.

IMPACTS AND MITIGATION MEASURES

Impact 4.4-1: Loss and degradation of state or federally protected waters

Implementation of the project would result in the removal or fill of jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal Clean Water Act and waters of the state. This impact would be **significant**.

Net SAP Area

Implementation of the net SAP would result in direct removal or fill of jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal Clean Water Act. Wetlands and other waters of the United States or waters of the state (aquatic resources) that would be affected by project implementation consist of vernal pools, seasonal wetlands, seasonal wetland swales, and intermittent and perennial streams; however, the location and extent of aquatic habitats in the net SAP area has not been mapped and the acreage of these features has not been quantified. Based on the PCCP land cover mapping, the highest density vernal pool complexes are in the northern portion of the net SAP and would be preserved in perpetuity within the Preserve/Mitigation Reserve land use designation, which consists of approximately 2,300 acres of existing and proposed habitat conservation and mitigation banks. The remainder of the net SAP area contains mostly low-density vernal pool complexes with some patches of intermediate-density complexes interspersed with very small bands of high-density vernal pool complexes (Exhibit 4.4-1). Table 4.4-4 provides a summary of the acreage of land cover types containing aquatic habitats that would be converted to developed land uses versus those that would be preserved under the proposed net SAP land use scenario. The exact acreage of aquatic resources that would be lost because of implementing the net SAP cannot be determined until site specific analyses are completed for future projects.

Table 4.4-4 Summary of Impacts and Preservation of Land Cover Types Containing Aquatic Resources for the Net SAP

Land Cover Type	Acres Existing	Acres Preserved	Acres of Direct Impact ¹	Percent Preserved ²	Estimated Wetland Impact Acres ³
VPC High Density	1,302	1,057	245	81	25
VPC Intermediate Density	1,201	712	489	59	24
VPC Low Density	2,261	130	2,131	6	21
Riverine/Riparian Complex	20	13	7	65	7
Marsh Complex	15	0	15	0	15
Pond	6	6	0	100	0
Total	4,489	1,918	2,571	43	92

¹ This is the acreage of land cover types containing aquatic resources that would potentially be developed and is not a calculation of the specific acreage of aquatic resources that would be lost.

² Percent preserved includes habitat preserved within the existing Orchard Creek Conservation Bank, Warm Springs Mitigation Bank, and Moore Ranch Conservancy. These three existing reserves do not have mitigation credits available and, therefore, are not considered to mitigate any future impacts resulting from implementation of the SAP or PRSP.

³ Estimated vernal pool type wetland acreages are based on assumption of 10% wetland acreage in high density VPC, 5% wetland acreage in medium density VPC, and 1% wetland acreage in low density VPC.

As shown in Table 4.4-4, implementing the net SAP would result in the conversion of approximately 2,865 acres of vernal pool complex containing an estimated 70 acres of vernal pool type wetlands, 7 acres of riverine/riparian complex, and 15 acres of marsh complex to developed land uses. The majority of high-density and intermediate-density vernal pool complex land cover, 81 percent and 59 percent, respectively, would be preserved within the Preserve/Mitigation Reserve land use designation. Sixty-five percent of the riverine/riparian complex land cover in the plan area would be preserved within the Preserve/Mitigation Reserve land use designation and additional acreage would be retained within the remaining land use

designations through compliance with the SAP policies that require stream corridor and stream system preservation and setbacks. Nonetheless, a substantial amount of aquatic resources acreage would be directly removed because of development envisioned under the net SAP.

While some individual aquatic resource features may be retained within the developed land uses through individual project design and planning, it is assumed for purposes of this analysis that the majority of aquatic resource acreage would be lost within the developed land use areas. In addition to these direct losses, aquatic resources retained within or adjacent to developed land uses could be indirectly affected by grading, trenching, and creation of impervious surfaces proposed for adjacent uplands and encroachment of developed land uses. Potential indirect effects include reduction in water quality caused by urban runoff, erosion, and siltation; increased pollution, including litter and dumping and noise and light pollution; alteration of hydrologic regime through modification of surface flows or perched groundwater flows; intrusion of humans and domestic animals; changes in management regimes, such as elimination of grazing; and introduction or spread of invasive species that could result in habitat degradation. Implementation of the SAP policies would reduce the potential impacts on water quality and hydrologic regime; however, indirect effects would still occur and would diminish habitat quality and function for most species that currently use these aquatic habitats because of the encroachment of developed land uses.

The loss and degradation of USACE jurisdictional vernal pools and other wetland habitats and other waters of the United States (e.g., streams) that would occur with implementation of the net SAP would result in a substantial adverse effect on Federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA. Therefore, both direct and indirect significant impacts would occur.

PRSP Area

Implementation of the PRSP would result in the direct removal or fill of approximately 46.35 acres of jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal Clean Water Act. All aquatic resources in the PRSP area are within federal jurisdiction because of connection to other waters of the United States or adjacency to tributaries to waters of the United States. Aquatic resources that would be affected by project implementation consist of vernal pools, seasonal wetlands, seasonal wetland swales, and intermittent and perennial streams (Exhibit 4.4-5). Aquatic resources located within the open space land use designation would be retained on site and are considered avoided (i.e., would not be subject to direct removal). Table 4.4-5 provides a summary of the approximate acreage of direct aquatic resource impacts and preservation under the proposed PRSP development scenario.

Table 4.4-5 Summary of Aquatic Resources Impacts and Preservation for the Placer Ranch Specific Plan

Aquatic Resource Type	Acres Existing	Acres Preserved	Acres of Direct Impact ¹	Percent Preserved
Intermittent Stream	1.40	1.25	0.15	89
Perennial Stream	2.14	1.96	0.18	92
Seasonal Wetland	22.21	8.5	13.71	38
Seasonal Wetland (Abandoned Rice Field)	22.64	10.22	12.42	45
Seasonal Wetland Swale	28.95	13.39	15.56	46
Vernal Pool	11.37	7.04	4.33	62
Total ²	88.71	42.36	46.35	48

¹ Impact total includes approximately 0.28 acre of aquatic resources impacts located within the proposed Placer Parkway corridor that was analyzed under a separate CEQA document and will be mitigated under a separate project. This total does not include direct impacts that may occur because of roadway improvements associated with the PRSP but located within the net SAP (i.e., Sunset Boulevard expansion, the Industrial Avenue extension/expansion, and part of the Foothills Boulevard extension).

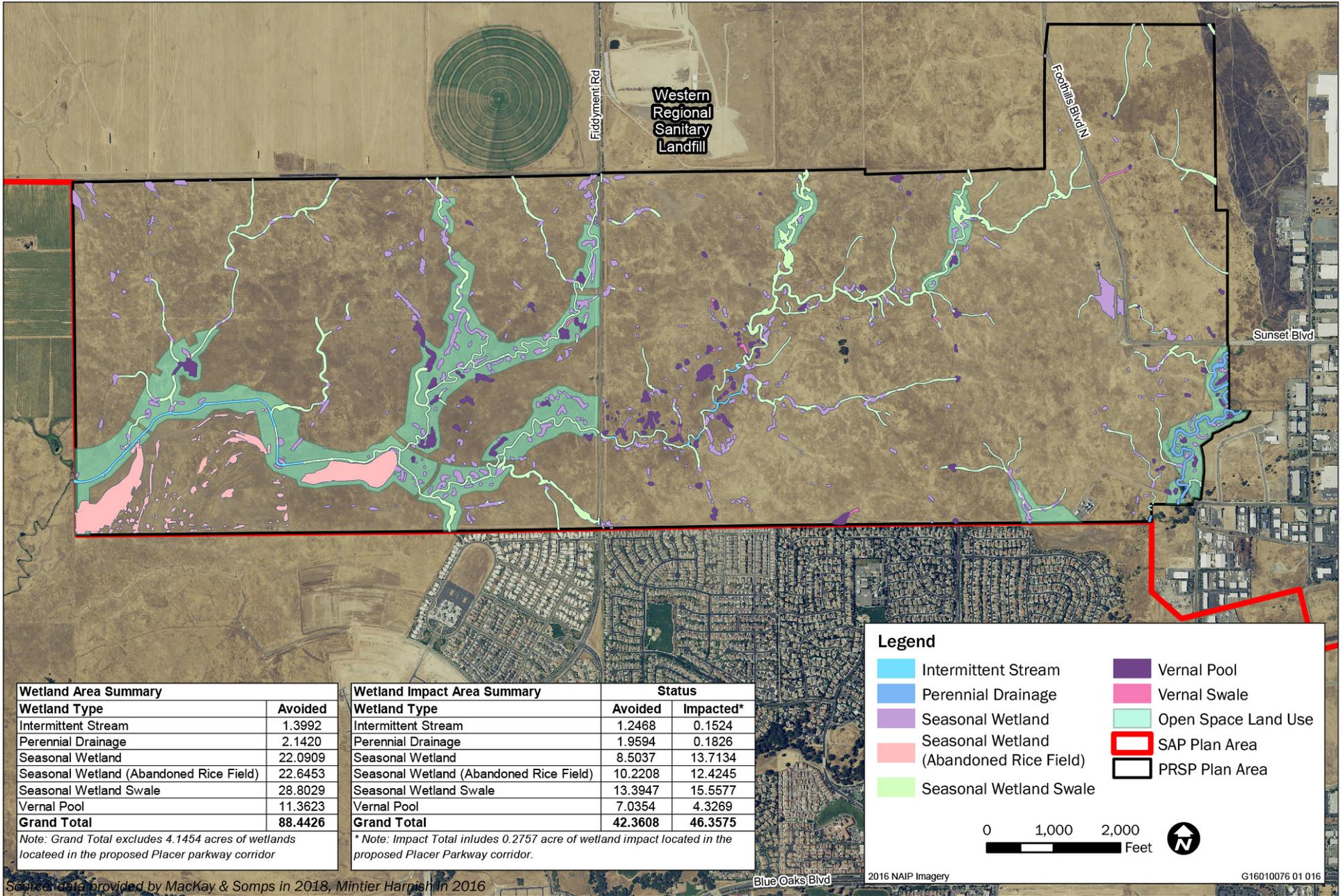
² Total excludes approximately 4.14 acres of aquatic habitats located within the proposed Placer Parkway corridor that was analyzed under a separate CEQA document.

As quantified in Table 4.4-5, implementing the PRSP would result in the loss of over 46 acres of aquatic resources, or 51 percent of the existing aquatic resources acreage in the plan area. In addition to these direct losses, aquatic resources retained on site could be indirectly affected by grading, trenching, and creation of impervious surfaces proposed for adjacent uplands, as well as through use as part of the stormwater system for proposed development. Potential indirect effects include reduction in water quality caused by urban runoff, erosion, and siltation; intrusion of humans and domestic animals; and introduction of invasive species that could result in habitat degradation. Although the major tributary stream channels traversing the PRSP area would be preserved within approximately 308 acres (including approximately 57 acres within the proposed university site) of designated open space, habitat functions would be substantially diminished for most species that currently use these habitats because of the encroachment of developed land uses, intrusion by humans and domestic pets, increased noise and light pollution, dumping of litter and debris that is harmful to wildlife, and alteration of hydrologic regime (e.g., transition from seasonal to perennial inundation) because of changes in surface flows or perched groundwater flows. The open space preserves are valuable to maintaining watershed function by preserving major tributaries, but they result in linear habitat areas with large edge areas between preserved habitat and development and are not designed to maintain the immediate watershed areas needed to preserve hydrologic function of individual seasonal wetlands and vernal pools within the open space preserve corridor. In addition, recreational trails, foot bridges, and passive parks would be allowed uses within the open space preserves thereby increasing human intrusion into preserved wetlands which can result in soil compaction and vegetation trampling by people trespassing off designated trails. All trails, bridges, and other infrastructure within open space preserves will be subject to terms of regulatory permitting or the PCCP, if approved. Flood water conveyance and detention and water quality treatment or filtration features could also be constructed within the open space preserves. These facilities would be designed to accommodate the water quality and hydrology effects of runoff from future development, but constructing these features could cause loss of existing wetlands within the open space areas.

Consistent with SAP policies, the PRSP has been designed to preserve stream systems on-site. As defined by the County in the PCCP, stream systems encompass the channels of the main streams and creeks that define the watersheds of western Placer County, plus either the outermost limit of a variable-width buffer measured outward from the ordinary high water mark or the area within the 100-year floodplain. The stream system also includes all riverine and valley foothill riparian cover mapped immediately adjacent to the stream within these boundaries. The variable-width buffers for qualifying streams in western Placer County are identified in the PCCP. Although the stream systems would be preserved within PRSP, they would be transected by proposed road crossings and many of the tributary swales that contribute to the on-site stream systems would be filled.

In addition, proposed extension or expansion of Foothills Boulevard, Sunset Boulevard, Industrial Avenue, and Campus Park Boulevard would require excavation in areas that contain low to intermediate density vernal pool complexes and cross drainage channels. Thus, these roadway improvements could result in fill or modification of perennial and intermittent stream channels and seasonal wetlands, including vernal pools, that have not yet been quantified.

The loss and degradation of USACE jurisdictional vernal pools and other wetland habitats and other waters of the United States (e.g., streams) that would occur with implementation of the PRSP would result in a substantial adverse effect on Federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA. Therefore, both direct and indirect significant impacts would occur.



Wetland Area Summary	
Wetland Type	Avoided
Intermittent Stream	1.3992
Perennial Drainage	2.1420
Seasonal Wetland	22.0909
Seasonal Wetland (Abandoned Rice Field)	22.6453
Seasonal Wetland Swale	28.8029
Vernal Pool	11.3623
Grand Total	88.4426

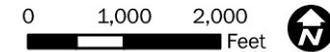
Note: Grand Total excludes 4.1454 acres of wetlands located in the proposed Placer parkway corridor

Wetland Type	Status	
	Avoided	Impacted*
Intermittent Stream	1.2468	0.1524
Perennial Drainage	1.9594	0.1826
Seasonal Wetland	8.5037	13.7134
Seasonal Wetland (Abandoned Rice Field)	10.2208	12.4245
Seasonal Wetland Swale	13.3947	15.5577
Vernal Pool	7.0354	4.3269
Grand Total	42.3608	46.3575

** Note: Impact Total includes 0.2757 acre of wetland impact located in the proposed Placer Parkway corridor.*

Legend

- Intermittent Stream
- Perennial Drainage
- Seasonal Wetland
- Seasonal Wetland (Abandoned Rice Field)
- Seasonal Wetland Swale
- Vernal Pool
- Vernal Swale
- Open Space Land Use
- SAP Plan Area
- PRSP Plan Area



Source: data provided by MacKay & Soms in 2018, Mintier Harnish in 2016

Blue Oaks Blvd

2016 NAIP Imagery

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Other Supporting Infrastructure

Pleasant Grove Retention Facility

Creation and use of Pleasant Grove Retention Facility as the preferred stormwater retention option would require extensive channel and weir improvements extending 3,900 feet upstream of the Pleasant Grove Retention Facility property (Exhibit 3-23). Control structures, such as weirs and pipe culverts with valves or gates, would be installed at multiple locations within Pleasant Grove Creek. Work in and adjacent to the creek could result in dredging or placement of fill into the stream channel, and in temporary disturbance to riparian or marsh habitat. In addition, excavation and fill would occur in areas that contain seasonal wetlands and tributary stream channels, and bypass structures would be created resulting in hydrological interruption and modification. However, the hydrological modifications would be designed to maintain preproject stream flows by diverting high flood flows into the retention facility.

A delineation of waters of the United States in a part of the South Basin determined that large portions of the south basin meet the criteria that define wetlands under the CWA. A new bypass channel, Creekview Bypass Channel, would be created in the South Basin and extending 3,900 feet upstream of the Pleasant Grove Retention Facility boundary parallel to Pleasant Grove Creek. This area is characterized by annual grassland that contains seasonal wetlands and swales, as well as perennial stream (Pleasant Grove Creek) that have been determined to be waters of the United States (City of Roseville 2011). Weirs and culverts would be constructed in the bank of Pleasant Grove Creek to allow flow exchange between the creek and the bypass channel during high flow events. A low-flow return channel would be built to convey low flows back to the creek at a rate that mimics preproject flow rates. A containment levee would be constructed around the retention basins. The formerly channelized portion of University Creek that flows into the North Basin would be restored to a more natural stream form, similar to its historic alignment through Pleasant Grove Retention Facility. The excavation and placement of fill soils could result in loss or alteration of portions of the Pleasant Grove stream channel, seasonal wetlands on the floodplain, and marsh and riverine/riparian complex. This impact would be significant.

Off-Site Transportation and Utility Improvements

Most of the off-site transportation and utility improvements would occur within rights-of-way of existing roads, or within urban areas, and would not involve disturbance of natural habitats or vegetation. However, the proposed improvements to the Woodcreek Recycled Water Tank site could require excavation near areas that contain low density vernal pool complexes. Thus, these improvements could result in fill or modification of seasonal wetlands, including vernal pools. This impact would be potentially significant.

Conclusion

Implementing the SAP would result in loss and degradation of vernal pools, seasonal wetlands, swales, and intermittent and perennial stream habitats through the conversion of vernal pool complexes to developed land uses. This impact would be **significant**.

Mitigation Measure 4.4-1a: Compensate for loss of aquatic resources (Net SAP Area and PRSP Area)

Consistent with proposed SAP Policy NR-1.2, Stream System Protection, the County shall require the protection and enhancement of the Stream System and other areas capable of meeting the PCCP Reserve Acquisition and avoidance criteria (e.g. Stream System, avoided areas 200 acres or greater, habitat and wetlands adjacent or connected to the Stream System or existing/future Reserves, Valley Oak Woodlands one acre or greater). Consistent with proposed SAP Program NR-4, PCCP and CARP Program Consistency, the County shall require project applicants to delineate all aquatic resources, implement all feasible avoidance and minimization measures described in the PCCP and CARP, calculate the extent of impacts, and provide compensatory mitigation according to the procedures described in the adopted PCCP and CARP, through payment of applicable mitigation fees to the In-Lieu Fee Program or purchase of mitigation credits at an agency-approved mitigation bank. If adopted, the PCCP may allow for consideration of land dedication in-lieu of PCCP fees, subject to approval by the future Placer Conservation Authority (PCA) and concurrence by the state and federal

agencies. The fees collected through the In-Lieu Fee Program shall be used to fund land acquisition, mitigation projects that protect, enhance, and restore aquatic resources, and long-term management and monitoring within the PCCP Reserve Acquisition Areas.

If the PCCP, including the Western Placer CARP and associated USACE programmatic permits are not adopted, or are not available as a permitting and mitigation strategy for future projects, compensation for loss of aquatic resources shall be implemented as follows:

- ▲ As a condition of project approval, the County shall require project proponents to conduct a delineation of waters of the United States according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and Arid West Supplement (Environmental Laboratory 2008) and to delineate any aquatic resources that may not meet the definition of waters of the United States, but would qualify as waters of the state. The delineation shall map and quantify the acreage of all aquatic resources on the project site and associated off-site improvement areas and shall be submitted to USACE for jurisdictional determination. This requirement applies to project sites for which a current delineation and subsequent verification and concurrence by USACE have not been completed.
- ▲ A permit from the USACE will be required for any activity resulting in fill of wetlands and other waters of the United States. Project proponents shall be required to obtain this permit before project initiation. A wetland mitigation plan that satisfies USACE requirements will be needed as part of the permit application. Project proponents that obtain a Section 404 permit will also be required to obtain water quality certification from the Central Valley RWQCB pursuant to Section 401 of the CWA.
- ▲ The project proponent for each future project requiring fill of aquatic resources shall replace or restore on a “no-net-loss” basis the function of all wetlands and other waters that would be removed as a result of implementing the respective project. Wetland habitat will be restored or replaced at an acreage and location and by methods agreeable to USACE and the Central Valley RWQCB, depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes.
- ▲ The project proponent shall submit a compensatory mitigation and monitoring plan (MMP) to USACE and the Central Valley RWQCB, for review and approval before USACE making a permit decision for the proposed action. The MMP shall be consistent with the Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division USACE, or most current guidelines, and shall identify the amount and type of proposed compensatory mitigation to ensure “no net loss” of aquatic resource functions and services that would be removed, lost, and/or substantially degraded as a result of implementing the project. The MMP will describe compensation ratios for acres filled, mitigation sites and work plan, maintenance plan and long-term management plan, a monitoring protocol, annual performance standards and final success criteria for created or restored habitats, corrective measures to be applied if performance standards are not met, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment).
- ▲ Mitigation methods may consist of establishment by a qualified biologist of aquatic resources in upland habitats where they did not exist previously, reestablishment (restoration) of natural historic functions to a former aquatic resource, enhancement of an existing aquatic resource to heighten, intensify, or improve aquatic resource functions, or a combination thereof. The compensatory mitigation may be accomplished through purchase of credits from a USACE-approved mitigation bank, payment into a USACE-approved in-lieu fee fund, or through permittee-responsible on-site or off-site establishment, reestablishment, or enhancement, depending on availability of mitigation credits. To the extent practicable, mitigation shall be carried out within the affected watershed.
- ▲ Permittee-responsible mitigation habitat shall be monitored by a qualified biologist for a minimum of 5 years from completion of mitigation, or human intervention (including recontouring and grading), or until the success criteria identified in the approved MMP have been met, whichever is longer.

Mitigation Measure 4.4-1b. Coordinate with City of Roseville regarding mitigation for loss of aquatic resources resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of aquatic resources resulting from construction of the Pleasant Grove Retention Facility and other off-site improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts to aquatic resources. The City would also obtain permits pursuant to Sections 404 and 401 of the Clean Water Act for fill of waters of the United States, including wetlands. As part of the permitting process, the City would identify and implement mitigation resulting in no net loss of wetland functions and values. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville.

Significance after Mitigation

Successful implementation of the SAP policies and Mitigation Measures 4.4-1 a and 4.4-1b is expected to reduce significant impacts on wetlands and other waters of the United States, and waters of the state, but not necessarily to a less-than-significant level. After a mitigation plan has been accepted by USACE and is implemented as required (including on-site preservation and purchase of credits at a mitigation bank and/or in-lieu fee mitigation), the direct impacts resulting from project implementation could be mitigated by providing "no net loss" of overall wetland acreage resulting from the project, as required in USACE permit conditions. However, USACE requires mitigation resulting in no net loss of wetland functions. Removal of approximately 46.35 acres of waters of the United States from the PRSP area, and additional comparable acreage from the remaining SAP area including stream channels, vernal pools, and other similar wetland habitats is a substantial loss, especially when considered in the context of the regional rate and acreage of habitat losses.

Creating compensatory wetlands cannot be guaranteed to fully replace the functions of wetlands lost and temporal losses would occur unless all impacts could be mitigated through fully functioning, established, in-kind wetlands from an approved mitigation bank, in lieu fee program, permittee responsible mitigation or other required comprehensive state and federal regulatory and wildlife agency mitigation. It is unknown if the PCCP will be adopted in time to provide a permitting and mitigation mechanism for future projects implemented under the SAP or PRSP. If the PCCP is approved by the state and federal agencies and is adopted and implemented in time to support development under the PRSP and Net SAP, it would likely reduce significant impacts to a greater degree than project-by-project mitigation by developing a large, managed and monitored reserve area that will provide wetland and species habitat restoration, open space and agricultural conservation in perpetuity, rather than smaller, more fragmented and isolated reserves surrounded by urban development.

State and federal regulatory and wildlife agencies permitting processes, including development of and requirements for avoidance, minimization and mitigation through restoration, creation, and preservation of wetlands and species habitat and replacement functions and values would need to fully satisfy and be consistent with the compensatory mitigation necessary to meet the requirements specified in future Biological Opinions and Section 404 permits. Although there are likely not enough credits currently in the market, there are several mitigation banks with current credit and potential future credit approved in their bank development plans. While existing credits may not be enough to fully cover the loss of wetland functions resulting from project implementation, and it is unknown if sufficient land would be available from willing sellers to fully mitigate the loss, existing and future banks may come on-line as the project is built-out over time and credits may become available in the future.

While it is likely that impacts would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville. Therefore, this impact would remain potentially **significant and unavoidable**.

Impact 4.4-2: Loss of special-status plants

Implementing the project would result in direct removal of wetland habitat known to support dwarf downingia, a California species of special concern, and potential habitat for other special-status plant species. Other special-status plant species could be present in suitable habitat in the project area and could be lost through habitat removal or modification. This impact would be **significant**.

Net SAP Area

Two special-status plant species, dwarf downingia and legenere, have been previously documented in the northern portion of the net SAP area within an area designated as Preserve/Mitigation Reserve in the SAP land use plan. These occurrences are within areas identified as Potential Acquisition Areas in the PCCP. These and other special-status plant species could occur at other locations within the net SAP area where suitable wetland habitats are present. Implementing the net SAP would result in conversion of suitable habitat to developed land uses. Loss of suitable could result in direct removal of special-status plants if they are present. Future development could also result in indirect impacts on special-status plants if any are present in portions of the net SAP area to be preserved as open space, including impacts caused by pollutants transported by urban runoff and other means, airborne particulates, changes in vegetation as a result of changes in land use and management practices, altered hydrology from the construction of adjacent residential development and roadways, intrusion of humans, habitat fragmentation, and the introduction of invasive species or noxious weeds from surrounding development. Indirect effects of habitat modification and fragmentation could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate such that these plant populations eventually die out. Direct and indirect impacts on special-status plant species would be potentially significant.

PRSP Area

Implementing the PRSP and associated off-site infrastructure improvements would result in loss of a known occurrence of dwarf downingia through direct removal of occupied habitat and loss of suitable habitat could result in direct removal of other special-status plants if they are present in the PRSP area. Legenere has been previously documented in the net SAP area and suitable habitat for this species, as well as for other special-status plant species known to occur in the region, is present in the PRSP area, as noted in Table 4.4-2. PRSP development could also result in indirect impacts on dwarf downingia and other special-status plants if any are present in portions of the PRSP area to be preserved as open space, including impacts caused by pollutants transported by urban runoff and other means, airborne particulates, changes in vegetation as a result of changes in land use and management practices, altered hydrology from the construction of adjacent residential development and roadways, habitat fragmentation, and the introduction of invasive species or noxious weeds from surrounding development. Indirect effects of habitat modification and fragmentation could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate such that these plant populations eventually die out.

Loss of dwarf downingia through direct removal or habitat modification constitutes a substantial adverse effect on a special-status plant species. Previously documented occurrence of dwarf downingia was in a portion of the PRSP area designated for developed land uses and this occupied habitat would therefore be removed. Additional dwarf downingia occupancy and other special-status plant species could be present in other locations within the PRSP area because the area has not been surveyed for special-status plants since 2005. Direct and indirect impacts on special-status plant species would be significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

The majority of the Pleasant Grove Retention Facility site has been used extensively for agriculture. Agricultural activities, which have included grading, plowing, mowing, and flood irrigation, preclude the establishment of natural plant communities on the majority of the site. Therefore, these areas do not provide suitable habitat for special-status plant species. The exceptions are habitat within Pleasant Grove Creek and University Creek, which is potentially suitable for Sanford's arrowhead, and the area extending 3,900 feet

upstream of the Pleasant Grove Retention Facility boundary where the Creekview Bypass Channel would be constructed to deliver overflow from Pleasant Grove Creek into the Pleasant Grove Retention Facility South Basin. This area is characterized by annual grassland, and is mapped in the PCCP as annual grasslands without vernal pools. This area contains vernal pool type wetlands suitable for dwarf downingia, Ahart's dwarf rush, legenera, Bogg's Lake hedge hyssop, and pincushion navarretia. Dwarf downingia and Bogg's Lake hedge hyssop were identified in wetlands near the proposed Creekview Bypass Channel during surveys conducted in support of the Creekview Specific Plan EIR (City of Roseville 2011). Channel modifications and construction of control structures within the creek could result in direct removal of Sanford's arrowhead if it is present, and construction of the Creekview Bypass Channel could result in direct removal of vernal pool plant species if they are present in the disturbance areas. This impact would be potentially significant.

Off-Site Transportation and Utility Improvements

Most of the off-site improvements would be constructed within rights-of-way of existing roads, or within urban areas, and would not involve disturbance of natural habitats or vegetation. However, proposed improvements to the Woodcreek Recycled Water Tank site could require excavation near areas that contain low density vernal pool complexes. Thus, these improvements could result in loss or modification of potential habitat for special-status plant species, as describe in Table 4.4-2, and could therefore result in direct removal of special-status plants if they are present or habitat degradation that ultimately leads to loss of special-status plant populations. This impact would be potentially significant.

Conclusion

Implementing the project would result in loss and degradation of known occupied and potential habitats for special-status plant species. Implementation of SAP Policy NR 2-1 and Program NR-5 would reduce impacts on known and potentially-occurring special-status plant species within the project area and off-site improvement areas within the County's jurisdiction because project proponents would be required to identify and avoid special-status plant populations to the extent feasible, and provide compensation for the unavoidable loss of special-status plants through establishment of new populations, conservation easements, or other appropriate measures. However, the SAP policies would not be enforceable on off-site improvement projects within the City of Roseville, including the Pleasant Grove Retention Facility. Therefore, this impact would be **significant** for the Pleasant Grove Retention Facility and other off-site improvements within the City of Roseville.

Mitigation Measure 4.4-2: Coordinate with City of Roseville regarding mitigation for impacts on special-status plant species resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of special-status plants resulting from construction of the Pleasant Grove Retention Facility and off-site transportation and utility improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts on special-status plants. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville.

Significance after Mitigation

While it is likely that impacts to special-status plants resulting from infrastructure projects in the City of Roseville would be mitigated by the City in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of such mitigation. Therefore, impacts on special-status plants within the City of Roseville's jurisdiction would remain potentially **significant and unavoidable**.

Impact 4.4-3: Loss of federally listed vernal pool branchiopods and western spadefoot

Implementing the project would result in loss and degradation of habitat for special-status wildlife species that rely on vernal pool type wetlands for at least a portion of their life cycle. These three species are federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp, and species of special concern, western spadefoot. Incidental take of these special-status wildlife species would also result. This impact would be **significant**.

Net SAP Area

As discussed under Impact 4.4-1, implementing the net SAP would result in conversion of approximately 2,865 acres of annual grassland vernal pool complexes (Table 4.4-4) to developed land uses. These vernal pool complexes contain vernal pools and vernal pool type wetlands that provide habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp (vernal pool branchiopods), and western spadefoot. Western spadefoots rely on seasonal wetland habitats for breeding and spend the remainder of their life cycle aestivating in surrounding upland habitats. Vernal pool fairy shrimp has been identified in numerous vernal pool type wetlands across the net SAP area (Exhibit 4.4-3), primarily in the northern portion of the net SAP area, and vernal pool tadpole shrimp and western spadefoots have been documented at several locations in the project vicinity. The removal of vernal pool complexes from the net SAP area would result in incidental take of vernal pool fairy shrimp, potential take of vernal pool tadpole shrimp and western spadefoot, and loss of valuable habitat for these species.

The net SAP area is within the Western Placer County core area identified in the vernal pool recovery plan (USFWS 2005) as an area that is important to the preservation and recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp, and to maintaining western spadefoot so that it does not end up on a trend toward federal listing. While the net SAP is designed to retain the majority of high-density vernal pool complexes on site (1,057 acres or 81 percent), as well as 59 percent (712) of the intermediate density vernal pool complexes, there would still be a substantial loss of habitat for these highly vulnerable species with 60 percent of the vernal pool complex cover in the plan area overall being converted to developed land uses. The vernal pool recovery plan has a goal of 85 percent preservation of the existing vernal pool fairy shrimp habitat within the Western Placer County core area, including both occupied and unoccupied suitable habitat, to recover the species. However, a large proportion of the Western Placer County Core area habitat has been, or is planned for development and some has been converted to agricultural uses, making it difficult to achieve the 85 percent preservation goal with anticipated development.

In addition to the direct removal of habitat, implementing the net SAP could have indirect impacts on vernal pool type wetlands, as described under Impact 4.4-1. USFWS (and the draft PCCP) generally considers that vernal pool habitats within 250 feet of lands that would be developed may be subject to indirect effects unless site-specific analysis of terrain and hydrologic barriers demonstrates the immediate watershed is smaller than 250 feet around the wetland. Thus, while 60 percent of habitat for vernal pool branchiopods and western spadefoot within the net SAP area would be preserved, some of these preserved pools on-site, as well as on adjacent parcels outside the net SAP boundary, could be indirectly affected by net SAP development. Indirect effects, including reduction in water quality and altered hydrology caused by urban runoff, erosion, and siltation; intrusion of humans and domestic animals; litter and dumping; and introduction of invasive plant species could result in habitat degradation leading to lower reproductive success of vernal pool branchiopods and western spadefoot, and decline in numbers or eventual elimination of these species from the affected habitat. Additional indirect impacts on western spadefoot could also include mortality related to an increase in vehicular traffic, mortality from landscaping maintenance activities including mowing, raking, weed whacking, noise and vibration disturbance causing toads to break dormancy, and exposure to herbicides, pesticides, and other toxins.

Direct and indirect impacts on vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot would be significant.

PRSP Area

Implementing the PRSP would result in direct loss of approximately 46 acres (53 percent) of vernal pool type wetlands, at least some of which could potentially support vernal pool fairy shrimp, vernal pools tadpole shrimp, and breeding western spadefoot (Table 4.4-5). This is lower than the USFWS' 85 percent preservation goal for the Western Placer County core area. The 85 percent goal is for the core area overall; however, a 53 percent loss of habitat from PRSP would further reduce the likelihood of obtaining this goal. In addition, development envisioned under the PRSP would result in loss of approximately 2,173 acres of annual grassland/low density vernal pool complex as defined by the PCCP, which are land cover types generally considered to provide potential habitat for western spadefoot. Surveys for vernal pool branchiopods have not been conducted in the PRSP area, but vernal pool fairy shrimp have been found elsewhere in the SAP area and immediately to the south and west of the PRSP boundary (Exhibit 4.4-3). Both vernal pool fairy shrimp and vernal pool tadpole shrimp have been found at multiple other locations in the PRSP vicinity as well.

Western spadefoot was not found in the PRSP area during surveys conducted in 2005, but suitable habitat is present and western spadefoot has been documented at several locations in the vicinity of the PRSP area (Exhibit 4.4-3). Given the amount of time that has passed since the surveys were completed, western spadefoot could currently be present in the PRSP and be subject to incidental take during construction activities. The removal of vernal pool complexes from the PRSP area could result in incidental take of vernal pool fairy shrimp vernal pool tadpole shrimp, and western spadefoot, and would result in loss of valuable habitat for these species, as described under the impact discussion for net SAP.

In addition to incidental take and removal of habitat, implementing the PRSP could result in the same indirect impacts as those described under the impact discussion for net SAP. Approximately 40 acres, or 47 percent, of existing vernal pool type wetlands would be retained within the approximately 308 acres of open space areas of the PRSP. However, the open space preserves are generally linear in shape and would eventually share large portions of their edges with development. The open space design is focused on stream preservation and may not account for immediate watershed areas of the seasonal wetlands retained, or for maintaining vernal pool systems (i.e. interconnected groups of pools and swales that function as a system). Surrounding upland immediate watershed areas are essential to sustaining the ecological functions of vernal pool systems. As noted previously, USFWS and the draft PCCP consider vernal pool wetlands within 250 feet of proposed development to be subject to indirect effects unless the immediate watershed can be demonstrated to be smaller than 250 feet. Roads and trails would transect the open space areas further fragmenting the retained habitat, and passive recreation would be permitted, increasing human intrusion and potential for volunteer trails, vegetation removal, soil compaction and litter. Habitat fragmentation could result in substantial indirect effects on vernal pool invertebrates including loss of genetic diversity, vulnerability to take because of random catastrophic events, isolation from source populations for recolonization, and reduction of avian dispersal agents. Studies of genetic variation in vernal pool tadpole shrimp indicate that vernal pool systems define populations of vernal pool tadpole shrimp and not individual pools (King et al. 1996, cited in USFWS 2005). Therefore, maintaining intact vernal pool systems is important to promoting genetic diversity and maintaining the health of individual populations. For these reasons, habitat values of the vernal pool type wetlands retained on site would be substantially reduced for vernal pool fairy shrimp and vernal pool tadpole shrimp, and western spadefoot. Additional indirect impacts on western spadefoot could also include incidental take related to an increase in vehicular and bike traffic, from landscaping maintenance activities including mowing, raking, weed whacking, noise and vibration disturbance causing toads to break dormancy, people collecting or injuring them, domestic pets preying on them, and exposure to herbicides, pesticides, and other toxins.

Proposed extension or widening of Foothills Boulevard, Sunset Boulevard, Industrial Avenue, and Campus Park Boulevard outside the PRSP boundary, but inside the SAP area, would require excavation in areas that contain additional low to intermediate density vernal pool complexes. Western spadefoot could also be present in upland portions of these off-site improvement areas. Thus, these roadway improvements could result in additional loss or modification of potential habitat for vernal pool branchiopods and western spadefoot and could therefore result in incidental take of these species if they are present or habitat degradation that ultimately leads to decline in numbers or elimination of these species from the affected habitat.

Direct and indirect impacts on vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot would be significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

The majority of the Pleasant Grove Retention Facility site has been used extensively for agriculture and does not provide suitable habitat for special-status vernal pool branchiopods. However, a new bypass channel, Creekview Bypass Channel, would be created in the South Basin and extending 3,900 feet upstream of the Pleasant Grove Retention Facility boundary parallel to Pleasant Grove Creek. This area contains seasonal wetlands that have been documented to support vernal pool fairy shrimp (City of Roseville 2011). Vernal pool tadpole shrimp and western spadefoot were not found during surveys of the Creekview Specific Plan Area, but potentially suitable habitat is present for western spadefoot (City of Roseville 2011). Western spadefoot could also be present in uncultivated upland portions of Pleasant Grove Retention Facility and Creekview Bypass excavation area. Construction of the Creekview Bypass Channel could result in direct removal of suitable habitat and take of vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot if they are present. This impact would be potentially significant.

Off-Site Transportation and Utility Improvements

Most of the off-site transportation and utility improvements would be constructed within rights-of-way of existing roads, or within urban areas, and would not involve disturbance of natural habitats or vegetation. Western spadefoot could be present in upland portions of these off-site improvement areas. Thus, these roadway improvements could result in loss or modification of potential habitat for vernal pool branchiopods and western spadefoot, and could therefore result in incidental take of these species if they are present or habitat degradation that ultimately leads to decline in numbers or elimination of these species from the affected habitat. This impact would be potentially significant.

Conclusion

Implementing the project would result in loss and degradation of habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot and would result in incidental take of these species if they are present. This impact would be **significant**.

Mitigation Measures

If the PCCP and CARP are adopted, no further mitigation would be necessary because Policy NR-1.4: PCCP and CARP Program Consistency and Program NR-4: PCCP and CARP Program Consistency Guidelines would be implemented to compensate for loss of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat. Although western spadefoot is not covered under the PCCP, plan implementation would reduce impacts on western spadefoot because it requires the protection of vernal pool complex habitat for survival and this habitat would be protected under the PCCP for vernal pool fairy shrimp and vernal pool tadpole shrimp.

If the PCCP and CARP are not adopted, or are not available as a permitting and mitigation strategy for future projects, compensation for loss of habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, implement Mitigation Measure 4.4-1b and the following additional measures:

Mitigation Measure 4.4-3a: Minimize take of western spadefoot (Net SAP Area and PRSP Area)

As a condition of project approval and before ground disturbing activities, the County shall require future project proponents to retain a qualified biologist to determine if the project site contains suitable habitat for western spadefoot and if so, conduct surveys for western spadefoot in areas of potential habitat that would be eliminated by the project. The surveys shall be conducted at the appropriate time of year to detect western spadefoot, generally the breeding season, according to methods approved by CDFW. If western spadefoot is found in habitat that will be eliminated or made unsuitable for western spadefoot, then a plan to collect and relocate adult and larval western spadefoot and egg masses to suitable habitat that will be preserved in perpetuity as required by Mitigation Measure 4.4-3b below.

Mitigation Measure 4.4-3b: Compensate for take of federally listed vernal pool invertebrates and western spadefoot habitat loss (Net SAP Area and PRSP Area)

Loss of vernal pool habitat and other seasonal wetland habitats that support or potentially support Federally listed vernal pool invertebrates shall be replaced or restored in such a manner that there will be no net loss of habitat (acreage and function) for vernal pool invertebrates and western spadefoot following project implementation. As described under Mitigation Measure 4.4-1a, project proponents shall complete and implement a compensatory habitat MMP describing how loss of vernal pool and other wetland habitats shall be offset, including details for creating habitat; accounting for the temporal loss of habitat, performance standards to ensure success, and remedial actions to be implemented if performance standards are not met. All measures shall meet the approval of Placer County, USACE, and USFWS.

No project construction shall proceed in areas supporting potential habitat for Federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a biological opinion (BO) and incidental take authorization has been issued by USFWS and the project proponent has abided by conditions in the BO, including all conservation and minimization measures. Conservation and minimization measures shall include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements.

Western spadefoot also requires the protection of vernal pool habitat for survival; therefore, implementation of Mitigation Measures 4.4-3a and 4.4-3b would also reduce impacts to western spadefoot. Mitigation shall include preservation of in-kind wetland habitats within the Western Placer County core area at ratios satisfactory to ensure no net loss of habitat acreage, function, and value within the core area. To count toward preservation credits, vernal pool habitats within the open space areas shall be placed under a permanent conservation easement.

Habitat to be protected includes both occupied and unoccupied suitable habitat that serves as corridors for dispersal, opportunities for metapopulation dynamics, reintroduction/introduction sites, and protection of undiscovered populations. Mitigation may include a combination of on-site and off-site preservation, as well as on-site or off-site wetland restoration and creation, purchase of credits at a mitigation bank approved by USFWS and USACE, or in-lieu fee mitigation.

The project proponents shall preserve acreage of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat at a ratio approved by USFWS at the conclusion of the Section 7 consultation. This mitigation shall occur before the approval of any grading or improvement plans for any project or phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. The project proponents will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or MMP, such as a BO obtained for the Placer Parkway or for Pleasant Grove Retention Facility.

Mitigation Measure 4.4-3c: Coordinate with City of Roseville regarding mitigation for vernal pool fairy shrimp, vernal pool tadpole shrimp and western spadefoot impacts resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for impacts on vernal pool branchiopods and western spadefoot from construction of the Pleasant Grove Retention Facility and other off-site improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts to vernal pool branchiopods and western spadefoot. Likewise, as a condition of project approval, the City of Roseville or applicant for off-site improvements would be required to obtain permits from USACE for fill of wetlands, which would trigger consultation with USFWS for species listed under the Endangered Species Act, including vernal pool fairy shrimp and vernal pool tadpole shrimp. Through the consultation process, measures to avoid, minimize, or compensate for impacts to listed species would be required. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site

improvements within the City of Roseville, nor would it have authority to enforce consultation with USFWS or permit compliance for off-site improvements that occur outside its own jurisdiction.

Significance after Mitigation

Implementation of Mitigation Measures 4.4-1a, 4.4-1b, 4.4-3a, 4.4-3b, and 4.4-3c would reduce significant direct and indirect effects on Federally listed vernal pool branchiopods and western spadefoot, but not necessarily to a less-than-significant level because of the extent of occupied and potential habitat loss and degradation. Removal of approximately 2,865 acres of low density vernal pool complexes from the SAP area, and approximately 2,173 acres of low density vernal pool complexes from the PRSP area is a substantial loss, especially when considered in the context of the rate and acreage of habitat losses in the region, and contributes significantly to the loss of habitat for these species in a core area identified by USFWS as being important to the recovery of these species. Because the PCCP has not been finalized and adopted, a determination cannot be made on whether the proposed plan would reduce these direct and indirect effects to a less than significant level.

If the PCCP is adopted and implemented in time to support development under the PRSP and SAP, it would likely reduce significant impacts on vernal pool branchiopods and western spadefoot to a greater degree than project-by-project mitigation by developing a large, managed and monitored reserve area that will provide vernal pool and associated habitat restoration, and open space and agricultural conservation in perpetuity, rather than smaller, more fragmented and isolated reserves surrounded by urban development. In addition, its avoidance, minimization and mitigation requirements would also support the reduction of potential indirect significant effects. However, that mitigation would not necessarily occur within the western Placer County core area because there is a limited amount of habitat present within the core area and a large proportion of it has already been developed or is planned for development.

It is unknown if the PCCP will be adopted in time to provide a mechanism for take authorization and mitigation for future projects implemented under the SAP or PRSP. Furthermore, the County would have no control over the timing and implementation of mitigation for impacts on vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot resulting from off-site improvements within the City of Roseville's jurisdiction.

There are currently no mitigation banks that service western Placer County with credits available to fully cover the loss of habitat resulting from project implementation. However, such credits may become available in the future. State and federal regulatory and wildlife agencies permitting processes, including development of and requirements for avoidance, minimization and mitigation through restoration, creation, and preservation of wetlands and species habitat and replacement functions and values would need to fully satisfy and be consistent with the compensatory mitigation necessary to meet the requirements specified in a Biological Opinion and Section 404 permits for the project.

Absent the adoption of the PCCP's conservation strategy, which if approved has been designed to serve as an equivalent alternative to implementation of a recovery plan, the project could result in an overall loss of habitat from the western Placer County core area could result in reducing the potential for recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp and contributing to the ongoing decline of these species in the region if other comprehensive state and federal regulatory and wildlife agency mitigation was not otherwise required. This loss and degradation of habitat could also contribute to a trend toward state or federal listing for western spadefoot even after mitigation. Therefore, this impact would remain **significant and unavoidable**.

Impact 4.4-4: Loss of valley elderberry longhorn beetle

Implementing the project could result in loss of elderberry shrubs, the host plant for the federally endangered valley elderberry longhorn beetle, and could result in take of this species. This impact is **potentially significant**.

Net SAP Area

Elderberry shrubs could be present within stream corridors, marsh complex, or in scattered locations within the net SAP area. Therefore, future development under the net SAP could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. Direct removal of elderberry shrubs or disturbance of shrubs that affects their health or survival could result in take of valley elderberry longhorn beetle. This impact would be potentially significant.

PRSP Area

Elderberry shrubs were not found in the PRSP area during surveys conducted in 2005 and 2017, but elderberry shrubs may have established within the riverine/riparian complex in the PRSP area in the intervening years since the surveys were completed. Therefore, future development under the PRSP could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. PRSP has been designed to avoid riverine/riparian corridors to the degree feasible; however, there is potential for elderberry shrubs to be removed or damaged as a consequence of constructing roadway crossings over stream channels that support riparian vegetation. Direct removal of elderberry shrubs or disturbance of shrubs that affects their health or survival could result in take of valley elderberry longhorn beetle. This impact would be potentially significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Development of the Pleasant Grove Retention Facility, particularly work within the Pleasant Grove riparian corridor, could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. This impact would be potentially significant.

Other Transportation and Utility Improvements

Proposed improvements to the Woodcreek Recycled Water Tank site would require excavation in areas that could contain elderberry shrubs. Thus, these off-site improvements could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. This impact would be potentially significant.

Conclusion

Implementing the project could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. Direct removal of elderberry shrubs or disturbance of shrubs that affects their health or survival could result in take of valley elderberry longhorn beetle. This impact would be **potentially significant**.

Mitigation Measure 4.4-4a: Avoid or compensate for valley elderberry longhorn beetle habitat (Net SAP Area and PRSP Area)

- Valley elderberry longhorn beetle is proposed as a covered species under the PCCP. If the PCCP has been adopted before implementation of the net SAP and PRSP, potential impacts to this species shall be mitigated through implementation of the PCCP conservation strategy. The PCCP conservation strategy includes survey and impact minimization/avoidance requirements for covered species, other conditions on covered activities to achieve conservation goals and objectives for covered species and natural communities, establishment of a habitat reserve system, and long-term conservation and management of habitats in the reserve system.

- ▲ If the PCCP has not been adopted before implementation of the net SAP and PRSP, project proponents under the PRSP and Net SAP shall be required to implement the following measures to mitigate potential impacts on valley elderberry longhorn beetle:
 - As a condition of approval, a qualified biologist shall determine whether future project sites contain valley elderberry longhorn beetle habitat (i.e., elderberry shrubs). If so, a preconstruction survey shall be conducted by a qualified biologist in all riverine/riparian habitat within 165 feet of project disturbance areas before any construction activity. The surveys shall be conducted according to the protocol outlined in USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017c) (Framework).
 - If elderberry shrubs are not present, no further mitigation is necessary.
 - If elderberry shrubs are located 165 feet or more from project activities, direct or indirect impacts are not expected. Shrubs shall be protected during construction by establishing and maintaining a high visibility fence at least 165 feet from the drip line of each elderberry shrub.
 - If elderberry shrubs can be retained within the project footprint, project activities may occur up to 20 feet from the dripline of elderberry shrubs if precautions are implemented to minimize the potential for indirect impacts. An avoidance area shall be established at least 20 feet from the drip line of an elderberry shrub for any activities that may damage the elderberry shrub (e.g., trenching, paving, etc.). The project proponent will implement avoidance and minimization measures specified in the USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017c).
 - As much as feasible, all activities that could occur within 165 feet of an elderberry shrub, shall be conducted outside of the flight season of the valley elderberry longhorn beetle (March - July).
 - Herbicides shall not be used within the drip line of the shrub. Insecticides shall not be used within 100 feet of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.
 - Mechanical weed removal within the drip-line of the shrub shall be limited to the season when adults are not active (August - February) and shall avoid damaging the elderberry.
 - If any elderberry shrubs cannot be avoided according to the USFWS 2017 Framework, the project proponent shall compensate for the loss of valley elderberry longhorn beetle habitat through participation in the PCCP, if it has been adopted and is available for project participation.
 - If trimming elderberry shrubs is proposed, trimming shall be conducted between November and February and shall not result in the removal of elderberry branches that are ≥ 1 inch in diameter. If trimming results in removing branches that are ≥ 1 inch in diameter, the project proponent shall mitigate for the loss of the valley elderberry beetle habitat through participation in the PCCP, if adopted, or according to the USFWS 2017 Framework if the PCCP has not been adopted.
 - The project proponent shall comply with ESA and consult with USFWS and will compensate for the unavoidable loss of elderberry shrubs according to USFWS 2017 Framework. The Framework uses presence or absence of exit holes, and whether the affected elderberry shrubs are in riparian habitat to determine the number of elderberry seedlings or cuttings and associated riparian vegetation that would need to be planted as compensatory mitigation for affected valley elderberry longhorn beetle habitat. Compensatory mitigation may include purchasing credits at a USFWS-approved conservation bank, providing on-site mitigation, or establishing and protecting habitat for valley elderberry longhorn beetle as follows:
 - For elderberry shrubs in riparian habitat:

- For each shrub that is trimmed, the project proponent shall purchase two credits at a USFWS-approved bank.
- For each shrub that is removed, the entire shrub may be transplanted to a USFWS-approved location in addition to the purchase of two credits.
- For elderberry shrubs in non-riparian habitat:
 - The project proponent shall purchase one credit at a USFWS-approved bank for each shrub that will be trimmed if exit holes have been found in any shrub on or within 165 feet of the project area.
 - If no exit holes are present and the shrub is not in riparian habitat, no further action is required.
 - If the shrub will be completely removed by the activity, the entire shrub shall be transplanted to a USFWS-approved location in addition to a purchase of one credit.

Mitigation Measure 4.4-4b: Coordinate with City of Roseville regarding mitigation for impacts on valley elderberry longhorn beetle resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for impacts on valley elderberry longhorn beetle from construction of the Pleasant Grove Retention Facility and other off-site improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts on valley elderberry longhorn beetle. Likewise, as a condition of project approval, the City of Roseville or applicant for off-site improvements would be required to obtain take authorization from USFWS for species listed under the Endangered Species Act, including valley elderberry longhorn beetle. Through the consultation process, measures to avoid, minimize, or compensate for impacts to valley elderberry longhorn beetle would be required. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements within the City of Roseville, nor would it have authority to enforce consultation with USFWS or permit compliance for off-site improvements that occur outside its own jurisdiction.

Significance after Mitigation

Implementation of Mitigation Measure 4.4-4, which involves mapping and fencing existing elderberry shrubs to avoid disturbing valley elderberry longhorn beetle habitat and compensating for the unavoidable loss of valley elderberry longhorn beetle habitat through USFWS-approved mitigation measures, or through implementation of the PCCP conservation strategy (if adopted) for valley elderberry longhorn beetle, would reduce significant impacts on valley elderberry longhorn beetle within the County's jurisdiction to a less-than-significant level. While it is likely that impacts would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site improvements that occur within the city. Therefore, impacts on valley elderberry longhorn beetle resulting from off-site improvements within the City of Roseville's jurisdiction would remain potentially **significant and unavoidable**.

Impact 4.4-5: Disturbance or loss of special-status reptile, bird, mammal, and fish species

Development projects and land uses implemented under the project would result in direct removal or disturbance of habitat known to support burrowing owl, loggerhead shrike, white-tailed kite, and northern harrier. Other special-status species could be present in suitable habitat in the project area and could be disturbed or lost through habitat removal or modification, including western pond turtle, Swainson's hawk, tricolored blackbird, song sparrow, grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger. Future development and construction activities such as ground disturbance and vegetation removal, as well as overall conversion of habitat to urban and commercial uses, could result in the disturbance or loss of individuals and reduced breeding productivity of these species. Special-status reptile, bird, and mammal species are protected under ESA, CESA, California Fish and Game Code, CEQA, or other regulations. The loss of special-status wildlife species and their habitats would be a **potentially significant** impact.

No special-status fish species are known or expected to occur in the project area. However, Orchard Creek and Pleasant Grove Creek are hydrologically connected to streams occupied by Central Valley steelhead and Chinook salmon, and designated as critical habitat for Central Valley steelhead, outside the project area. Therefore, construction and operation of land uses proposed under the project that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the project area. However, future projects and land uses would be required to comply with CVRWQCB, Placer County, and proposed SAP regulations and permit conditions, and would implement LID measures and stormwater BMPs to protect downstream water quality and fish habitat. Therefore, potential indirect effects of project implementation on special-status fish habitat outside the project area would be **less than significant**.

Net SAP Area

Burrowing owl, a CDFW species of special concern, has been documented in the northern portion of the net SAP area. Eleven other special-status bird, reptile, and mammal species were determined to have potential to occur in the net SAP area, based on the presence of suitable habitat and/or documented occurrences nearby: western pond turtle, loggerhead shrike, tricolored blackbird, song sparrow ("Modesto" population), grasshopper sparrow, Swainson's hawk, white-tailed kite, northern harrier, pallid bat, Townsend's big-eared bat, and American badger. Construction activities such as ground disturbance and vegetation removal, and the conversion of suitable habitat to urban and commercial uses, associated with potential future development and land uses in the net SAP area could result in disturbance or loss of special-status reptile, bird, and mammal species, if they are present. Potential effects of net SAP implementation on these species are discussed below.

No special-status fish are known or expected to occur in the net SAP area. However, Orchard Creek and Pleasant Grove Creek are hydrologically connected to streams occupied by Central Valley steelhead (listed as threatened under ESA) and Chinook salmon, and designated as critical habitat for Central Valley steelhead, outside the net SAP area. Therefore, potential indirect effects of net SAP implementation on steelhead and Chinook salmon habitat are discussed below.

Western Pond Turtle

Western pond turtle is a CDFW species of special concern. This species occurs in many different aquatic habitats, including ponds, marshes, rivers, and irrigation ditches. Western pond turtle uses upland habitat for basking and egg-laying. This species has not been documented in the net SAP area, and no CNDDB occurrences of western pond turtle are reported from within 5 miles of the SAP area. The SAP area is within the species' range and contains potentially suitable aquatic habitat in Orchard Creek and the Pleasant Grove Creek tributary. Development and future land uses proposed under the net SAP could result in the loss of western pond turtle or occupied habitat, if the species occurs in the net SAP area, through construction-related disturbances to suitable aquatic and adjacent upland habitats, and conversion of suitable aquatic and upland habitats to urban and commercial uses. This would be a potentially significant impact.

Burrowing Owl

Burrowing owl, a CDFW species of special concern, has been documented in the northern portion of the net SAP area (CNDDDB 2017). The net SAP area contains suitable breeding and foraging habitat in annual grassland, vernal pool complex, pasture, and agricultural lands, and along earthen berms along irrigation ditches and between agricultural fields. Development and future land uses proposed under net SAP could result in destruction of active burrows or direct mortality of burrowing owls, if they are present on project sites, through conversion of suitable habitats to urban, industrial, and commercial uses and construction-related ground disturbance. This would be a potentially significant impact.

Swainson's Hawk, Northern Harrier, and White-Tailed Kite

Swainson's hawk is listed as threatened under CESA. Northern harrier is a CDFW species of special concern and white-tailed kite is listed as fully protected under the California Fish and Game Code. Swainson's hawk, white-tailed kite, and northern harrier nesting have not been documented in the net SAP area; however, all three species are frequently observed in the vicinity. The nearest known Swainson's hawk nest site is located 0.4 mile south of the SAP area along Pleasant Grove Creek; the nearest known white-tailed kite nest site is located approximately 2 miles south of the SAP area (CNDDDB 2017). No CNDDDB records for nesting northern harrier have been reported within five miles of the SAP area. A pair of white-tailed kites was observed roosting in a large oak tree along the Pleasant Grove Creek tributary in the southeast corner of the SAP area during the reconnaissance survey in August 2017. In the project area, large, isolated trees (e.g., cottonwoods and oaks) and tree groves provide potentially suitable nest sites for Swainson's hawk and white-tailed kite, and annual grassland and vernal pool complex, pasture, marsh, and agricultural lands provide suitable foraging habitat for these three species, as well as potential nesting habitat for northern harrier in densely-vegetated areas.

Project construction activities associated with development of future land uses in the net SAP area, such as ground disturbance, vegetation removal, construction vehicles, and presence of construction crews, could disturb nesting Swainson's hawks, northern harriers, and white-tailed kites if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. At full buildout, the conceptual land use plan also includes the conversion of approximately 2,865 acres of grassland plus additional potential foraging habitats (e.g., agricultural, pasture, and marsh lands) to urban uses. Conversion of these areas would result in the permanent loss of suitable foraging habitat for Swainson's hawk. The potential loss of Swainson's hawk, white-tailed kite, and northern harrier nests, or the permanent loss of Swainson's hawk foraging habitat, would be a potentially significant impact.

Loggerhead Shrike, Tricolored Blackbird, Song Sparrow, and Grasshopper Sparrow

Several additional special-status bird species could potentially occur in the net SAP area, including loggerhead shrike, tricolored blackbird, song sparrow ("Modesto" population), and grasshopper sparrow. Loggerhead shrike, grasshopper sparrow, and the "Modesto" population of song sparrow are CDFW species of special concern, and tricolored blackbird was officially listed as threatened under CESA on April 19, 2018.

Potentially suitable nesting habitat for song sparrow ("Modesto" population) and tricolored blackbird is present in the net SAP area, primarily within ruderal vegetation (e.g., blackberry) along irrigation ditches and streams. No CNDDDB records for song sparrow have been reported within five miles of the SAP area. Tricolored blackbird colonies have been documented at several locations within one mile of the SAP area, including along Orchard Creek along the northeast boundary of the SAP area. Habitat in the net SAP area for both of these species is not optimal; however, it is possible that nests or nesting colonies could be present.

The SAP area provides suitable foraging habitat for tricolored blackbird; however, the nearest known nest colonies are located along/adjacent to the northeast corner of the SAP Area, associated with the Orchard Creek drainage. Although tricolored blackbirds may forage up to approximately 3 miles from nest colonies, most birds forage within 1 to 1.5 miles of an active nest colony. Most of the better-quality foraging habitat within that area is likely within the proposed preserve/mitigation area or areas north (and outside the net SAP area). The highest-quality foraging habitats for the species are those that support large insect populations (e.g., field crops including alfalfa, sunflower, rice; irrigated pastures; lightly-grazed grasslands; feedlots/livestock operations). For the known colonies nearest to the SAP Area, the highest-quality foraging

habitats nearby appear to include croplands, pasture, and other open habitats within or near the Orchard Creek and Auburn Ravine floodplains outside the SAP area and within the mitigation/preserve area. Therefore, because potential nesting habitat within the net SAP area is marginal, foraging habitat is lower quality than foraging habitat available in the surrounding areas and preserve/mitigation areas, and the known nest distribution is outside of the areas planned for development under the project, loss of tricolored foraging habitat would be a less-than-significant impact.

Loggerhead shrike and grasshopper sparrow nesting has not been documented in the net SAP area. However, both species have been documented in the vicinity, and annual grasslands with scattered shrubs or trees provide suitable nesting habitat for loggerhead shrike, and open habitats with dense vegetation and scattered shrubs may provide habitat for grasshopper sparrow.

Project construction activities associated with potential future land uses and development, such as ground disturbance and vegetation removal, could disturb nesting loggerhead shrike, tricolored blackbird, song sparrow, and grasshopper sparrow if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. This would be a potentially significant impact.

American Badger

American badger has not been documented in the net SAP area; no occurrences of the species within five miles of the SAP area have been reported in CNDDDB. Optimal habitat for American badger is likely not present in the net SAP area; however, grasslands and agricultural fields could provide suboptimal habitat for badger. Potential future land uses and development activities in the net SAP area, including conversion of agricultural land to urban uses and associated ground disturbance, could result in the direct loss or injury of American badger if the species is present on the project site. This would be a potentially significant impact.

Pallid Bat and Townsend's Big-Eared Bat

Pallid bat and Townsend's big-eared bat are designated as a species of special concern by CDFW and High Priority by the Western Bat Working Group. Pallid bats use a variety of habitats including grasslands, shrublands, woodlands, and coniferous forests. Pallid bats are most common in open, dry habitats that contain rocky areas for roosting. Day roosts may vary but are commonly found in rock crevices, tree hollows, mines, caves and a variety of human-made structures. Night roosts are usually more open sites and may include open buildings, porches, mines, caves, and under bridges. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks (Sherwin 2005). Pallid bats are yearlong residents in most of their range and hibernate in winter near their summer roost (Zeiner et al. 1990).

Townsend's big-eared bat is widespread throughout California but its specific distribution is not well known. Townsend's big-eared bat requires large, enclosed spaces with large openings for roosting, such as buildings or caves. This species most frequently roosts in caves, tunnels, or mines; however, colonies of fewer than 100 individuals occasionally nest in buildings or bridges. Townsend's big-eared bat forages in most habitats except alpine and subalpine, though most commonly in mesic forests and woodlands.

Pallid bat and Townsend's big-eared bat have not been documented in or within five miles of the SAP area (CNDDDB 2017), and potential habitat quality in the net SAP area for both species is limited and not considered optimal. However, large trees, bridges, and buildings in the net SAP area could provide roosting habitat for these species. Implementation of the net SAP could temporarily disturb pallid bat and Townsend's big-eared bats that may be roosting on project sites. If roost sites for pallid or Townsend's big-eared bats are present in proposed construction areas, temporary disturbances resulting from construction-related noise could disrupt roosting bats, including breeding females, and cause them to abandon a roost site and young. Project activities within suitable habitat that remove or disturb trees or other structures (e.g., bridges, buildings) used for roosting could remove or cause abandonment of these features. Additionally, the removal of trees or other structures occupied by bats during removal activities could impact bats. This impact would be potentially significant. Loss of active roost sites could affect distribution of individuals over time if other suitable roost sites are not available; however, the net SAP area is not expected to support significant roosts of these species, and other habitats with potential roost structures are present in the

surrounding region. Because construction would occur during the day when bats are typically not active, disturbances to foraging behavior and prey would be minimized and impacts would be less than significant.

Central Valley Steelhead and Chinook Salmon

Central Valley steelhead is listed as threatened under ESA. Central Valley fall-run chinook salmon is a CDFW species of special concern. In western Placer County, steelhead is currently known to be present in the Bear River, Coon Creek, Auburn Ravine, and Dry Creek (including Secret Ravine and Miner's Ravine tributaries). Chinook salmon has been documented in Auburn Ravine, Coon Creek, and Doty Ravine (Placer County 2002), and Dry Creek (including Secret Ravine and Miner's Ravine tributaries), and Antelope Creek. Streams in the net SAP area are not considered occupied by steelhead (NMFS 2014) or Chinook salmon, and suitable aquatic habitat for the species is not present. Therefore, net SAP implementation would not directly affect steelhead, Chinook salmon, or suitable habitat for these species.

Orchard Creek in the net SAP area is hydrologically connected to occupied habitat for steelhead and Chinook salmon, and critical habitat for steelhead (migration and/or rearing habitat), outside the net SAP area in Auburn Ravine, approximately 0.75 mile north of the northern SAP boundary (at its closest point). Also, the tributary to Pleasant Grove Creek in the southeast portion of the SAP area is hydrologically connected to Cross Canal, which is also connected to Auburn Ravine. Therefore, construction and land uses proposed under net SAP that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the net SAP area. The following discusses potential effects of net SAP implementation on streams in the net SAP area and associated indirect effects on steelhead and Chinook salmon habitat downstream of the SAP area.

Orchard Creek is located in the Preserve/Mitigation Reserve land use designation and, therefore, would not be affected by net SAP development. However, the tributary to Pleasant Grove Creek is located in the southeast portion of the net SAP, which is planned for Business Park and Light Industrial land uses. Development in these areas could directly disturb the tributary and its associated riparian habitat during construction. Additionally, the stream and its water quality could be indirectly affected by grading, trenching, and creation of impervious surfaces proposed for adjacent uplands and encroachment of developed land uses.

As analyzed and described in Section 4.9, "Hydrology and Water Quality," implementation of the net SAP would increase the extent of impervious surfaces in the net SAP area, which could increase stormwater runoff volumes and velocities, overwhelm existing drainageways, and create downstream flooding. Construction activities created by implementation of the net SAP could lead to contamination of stormwater flows and potential degradation of downstream surface water quality and fish habitat. Contaminants generated by urban development and long-term uses within the SAP area could be carried in stormwater runoff and could reach surface waters and degrade water quality. All of these potential factors could affect habitat quality for steelhead and other fish species downstream of the SAP area.

However, as detailed in Section 4.9, "Hydrology and Water Quality," protective SAP policies and Placer County permit conditions would require any future development within the net SAP area to implement LID and stormwater management measures to reduce stormwater runoff such that peak runoff volumes are reduced to 90 percent of their predevelopment levels; there would be no increase in stormwater runoff from the 2-year, 24-hour storm; and runoff from large storm events would be retained to prevent increased downstream flooding. Additionally, because the SAP storm drain system would be designed to accommodate buildout stormwater flows, new development within the net SAP area would not generate runoff that exceeds the capacity of the system.

The net SAP would protect water quality by establishing preserve and open space areas around streams and sensitive habitats. In addition, all future projects constructed under the net SAP would be required to install erosion and sediment controls; implement and maintain temporary construction BMPs to control and properly manage site runoff; and waste control measures to prevent leakage or spill of hazardous materials into soils and surface waters. Because these regulatory protections are in place to minimize erosion and transport of sediment and other pollutants during construction, and appropriate project-specific mitigation

measures would be defined to secure necessary permits and approvals, construction-related water quality impacts and related effects on fish habitat would be reduced.

Regarding effects of urban development and long-term uses on aquatic habitats, future projects within the net SAP area would be required to comply with CVRWQCB, Placer County, and proposed SAP policies and permit conditions and would implement LID measures and stormwater BMPs to prevent urban pollutants from being carried into surface waters. Additional protections would be required for industrial projects. These existing protections would reduce the potential for urban development within the net SAP area to affect downstream fish habitat. Additionally, implementation of Mitigation Measures 4.4-1a (Revised SAP Policies Related to Protection of Aquatic Resources) and 4.41b (Compensate for Loss of Aquatic Resources) for Impact 4.4-1 (Loss and Degradation of State or Federally Protected Waters) would further reduce the potential for indirect effects on steelhead and Chinook salmon downstream. Therefore, potential indirect effects of net SAP implementation on steelhead and Chinook salmon habitat outside the net SAP area would be less than significant.

PRSP Area

Special-status reptiles, birds, and mammals known or with potential to occur in the PRSP area are the same as those described previously for the net SAP area. An active loggerhead shrike nest was observed during biological surveys conducted in 2005 (ECORP Consulting 2005). No other breeding occurrences of special-status reptiles, birds, and mammals have been documented, but burrowing owl, Swainson's hawk, northern harrier, and white-tailed kite have been observed foraging or roosting in the PRSP area by ECORP Consulting (2005) and Ascent (2017 field reconnaissance survey) biologists. In addition to these five species known to occur, seven other special-status bird, reptile, and mammal species were determined to have potential to occur in the PRSP area, based on the presence of suitable habitat and/or documented occurrences nearby: western pond turtle, tricolored blackbird, song sparrow ("Modesto" population), grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger.

No special-status fish are known or expected to occur in the PRSP area. However, the tributary to Pleasant Grove Creek in the PRSP area is (indirectly) hydrologically connected to streams occupied by Central Valley steelhead and Chinook salmon outside and downstream of the PRSP area.

Special-Status Reptiles, Birds, and Mammals

The types and relative magnitude of potential effects of PRSP implementation on special-status reptiles, birds, and mammals would be similar to those described previously for the net SAP, because of similar habitat types and wildlife species associations between the areas, and the general distribution of proposed future construction and development across those habitats. For the same reasons discussed for net SAP implementation, construction activities such as ground disturbance and vegetation removal, and the conversion of suitable habitat to urban and commercial uses, associated with potential future development and land uses in the PRSP area could result in disturbance or loss of burrowing owl, Swainson's hawk, northern harrier, white-tailed kite western pond turtle, tricolored blackbird, song sparrow ("Modesto" population), grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger, if they are present in the PRSP area. The potential disturbance or loss of each of these 12 species would be a potentially significant impact, for the same reasons discussed for net SAP implementation.

Central Valley Steelhead and Chinook Salmon

Construction and land uses proposed under PRSP that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the PRSP area. These potential effects are described in greater detail for net SAP implementation. However, development under PRSP would be required to comply with CVRWQCB, Placer County, and proposed SAP policies and permit conditions, and would implement LID measures and stormwater BMPs to protect downstream water quality and fish habitat. Therefore, potential indirect effects of PRSP implementation on special-status fish habitat outside the PRSP area would be less than significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Special-Status Reptiles, Birds, and Mammals. The south basin of the Pleasant Grove Retention Facility is located on a 620-acre property that contains approximately 436 acres of dryland farm and 75 acres of rice crops (Placer County 2017); the remainder is uncultivated. The proposed footprint of the Pleasant Grove Retention Facility south basin is approximately 276 acres. Rice farming has been ongoing at the Pleasant Grove Retention Facility site for decades and the current dryland farm areas were previously cultivated in rice (Placer County 2017). The predominant crop in the dryland farm areas is Italian rye grass. The north basin property consists primarily of a dryland farm and that has been farmed since at least 1993. Additional habitats on the site include annual grassland and riverine/riparian complex along Pleasant Grove Creek. A marsh complex is present near the northern boundary of the Pleasant Grove Retention Facility. This marsh complex is associated with another tributary to Pleasant Grove Creek and may also be the result of beaver dams.

The Pleasant Grove Retention Facility site includes the City of Roseville's Al Johnson Wildlife Area, recognized for its wildlife habitat and open space values. The area is planned for regional flood control and stormwater retention, and compatible open-space recreation and environmental restoration features. The mix of agricultural, grassland, riparian, and aquatic habitat types on the Pleasant Grove Retention Facility site provides potential habitat for the 12 special-status reptile, bird, and mammal species discussed previously for the net SAP and PRSP areas. Of those species, western pond turtle was observed basking within the Pleasant Grove Creek channel during surveys conducted for the proposed City of Roseville Retention Basin Project (City of Roseville 2002). No occurrence records of other special-status reptile, bird, mammal, or fish species are known from the Pleasant Grove Retention Facility site. Pleasant Grove Creek within the Pleasant Grove Retention Facility site does not provide suitable habitat for anadromous salmonids, including Central Valley steelhead and Chinook salmon (City of Roseville 2002).

The grading, excavation, and channel and weir improvements required for the proposed expansion of the stormwater retention facility could affect special-status reptile, bird, and mammal species, if they are present during construction. For the same reasons discussed for SAP implementation, construction activities such as ground disturbance and vegetation removal could result in disturbance or loss of burrowing owl, Swainson's hawk, northern harrier, white-tailed kite western pond turtle, tricolored blackbird, song sparrow ("Modesto" population), grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger, if they are present. The potential disturbance or loss of each of these 12 species would be a potentially significant impact, for the same reasons discussed for SAP implementation. The Pleasant Grove Retention Facility would not include urban development. After construction of the retention basins, the site would be revegetated and would function as open space (City of Roseville 2002). Therefore, any potential long-term effects on habitat availability or quality would be less than significant.

Central Valley Steelhead and Chinook Salmon. Expansion and use of the proposed Pleasant Grove Retention Facility would require extensive channel and weir improvements along Pleasant Grove Creek extending 3,900 feet upstream of the Pleasant Grove Retention Facility property (Exhibit 3-23). Control structures, such as weirs and pipe culverts with valves or gates, would be installed at multiple locations within Pleasant Grove Creek. A low-flow return channel would be built to convey low flows back to the creek at a rate that mimics preproject flow rates. A containment levee would be constructed around the retention basins. The formerly channelized portion of University Creek that flows through the North Basin would be restored to a more natural stream form, similar to its historic alignment through Pleasant Grove Retention Facility. Proposed work within or adjacent to Pleasant Grove Creek and University Creek would result in direct channel disturbances and removal of riparian vegetation, and could result in indirect disturbances (e.g. change in floodplain connectivity or in flood duration, hydrologic modifications) that degrade water quality and stream habitat. Because Pleasant Grove Creek along the Pleasant Grove Retention Facility site lacks viable spawning or migration habitat for anadromous salmonids (City of Roseville 2002), including Central Valley steelhead and Chinook salmon, no direct effects on Central Valley steelhead or Chinook salmon habitat would result from expansion of the retention facility. However, construction associated with the proposed expansion of the Pleasant Grove Retention Facility may temporarily affect in-stream water quality

and habitat, which could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the Pleasant Grove Retention Facility site and project area. Potential effects of in-channel work and other construction on hydrology and water quality of Pleasant Grove Creek are analyzed and discussed in detail in Section 4.9, “Hydrology.”

As discussed in detail in Section 4.9, “Hydrology and Water Quality,” the project would be required to implement erosion control BMPs, protect against sediment contamination of streams, and prevent spills and leaks of hazardous materials from construction equipment. However, the County would have no ability to enforce environmental compliance for this project within the City of Roseville. Therefore, potential indirect effects of project-related construction on steelhead and Chinook salmon habitat resulting from the Pleasant Grove Retention Facility would be potentially significant.

Off-Site Transportation and Utility Improvements

Most of the off-site transportation and utility improvements would occur within rights-of-way of existing roads, or within urban areas, and would not involve disturbance of natural habitats or vegetation. However, some improvements would involve adding road lanes or extending roadways into currently undeveloped areas. For example, proposed improvements to the Woodcreek Recycled Water Tank site would require excavation in areas that contain annual grassland or vernal pool complexes. Because these sites are subject to high levels of human disturbance and isolation of habitat patches because of commercial and residential development, presence of major road corridors, and other uses, they are not likely to function as important habitats for most special-status species. However, because these sites are located within or near areas containing suitable habitats for the 12 special-status reptile, bird, and mammal species discussed previously for the net SAP and PRSP areas, and they have not been surveyed or evaluated at a project level, this potential impact on these wildlife species is considered potentially significant.

Conclusion

Development projects, land uses, and off-site improvements implemented under the project would result in removal or disturbance of habitat known to support burrowing owl, loggerhead shrike, white-tailed kite, and northern harrier. Other special-status species could be present in suitable habitat in the project area and could be disturbed or lost through habitat removal or modification, including western pond turtle, Swainson’s hawk, tricolored blackbird, song sparrow, grasshopper sparrow, pallid bat, Townsend’s big-eared bat, and American badger. Future development and construction activities such as ground disturbance and vegetation removal, as well as overall conversion of habitat to urban and commercial uses, could result in the disturbance or loss of individuals and reduced breeding productivity of these species. Special-status reptile, bird, and mammal species are protected under ESA, CESA, California Fish and Game Code, CEQA, or other regulations. The loss of special-status wildlife species and their habitats would be a **potentially significant** impact.

No special-status fish species are known or expected to occur in the project area. However, Orchard Creek and Pleasant Grove Creek are hydrologically connected to streams occupied by Central Valley steelhead (listed as threatened under ESA) and Chinook salmon, and designated as critical habitat for Central Valley steelhead, outside the project area. Therefore, construction and land uses proposed under SAP and PRSP that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the SAP area. However, future projects and land uses would be required to comply with CVRWQCB, Placer County, and proposed SAP regulations and permit conditions, and would implement LID measures and stormwater BMPs to protect downstream water quality. Therefore, potential indirect effects of net SAP and PRSP implementation on special-status fish habitat outside the project area would be less than significant. However, the County would have no control over the timing and implementation of mitigation, or compliance with other regulations, for off-site improvements that occur within the City of Roseville. Therefore, this impact would **potentially significant**.

Mitigation Measure 4.4-5a: Minimize and avoid disturbances to western pond turtle, burrowing owl, Swainson's hawk, and tricolored blackbird; compensate for loss of occupied habitats (Net SAP Area and PRSP Area)

- ▲ Western pond turtle, burrowing owl, Swainson's hawk, and tricolored blackbird are proposed as covered species under the PCCP. If the PCCP has been adopted before implementation of the SAP and PRSP, potential impacts to these covered species shall be mitigated through implementation of the PCCP conservation strategy. The PCCP conservation strategy includes survey and impact minimization/avoidance requirements for covered species, other conditions on covered activities to achieve conservation goals and objectives for covered species and natural communities, establishment of a habitat reserve system, and long-term conservation and management of habitats in the reserve system.
- ▲ If the PCCP has not been adopted before implementation of the SAP and PRSP, the following measures shall be implemented for potential impacts to western pond turtle, burrowing owl, Swainson's hawk, and tricolored blackbird.

Western Pond Turtle

Before ground disturbing activities, project proponents shall retain a qualified biologist to determine whether the potential project site contains suitable habitat for western pond turtle. For projects or ground-disturbing activities (including any required off-site improvements) with potential to disturb suitable aquatic or adjacent upland habitat for western pond turtle, the following measures shall be implemented.

- ▲ Within 24 hours before beginning construction activities within 200 feet of suitable aquatic habitat for western pond turtle, a qualified biologist shall survey areas of anticipated disturbance for the presence of western pond turtle. The construction area shall be re-inspected whenever a lapse in construction activity of two weeks or more has occurred. If pond turtles are found during the survey or observed within the construction area at any other time, they shall be relocated by a qualified biologist to the nearest area with suitable aquatic habitat outside of the area of disturbance and CDFW will be notified.

Burrowing Owl

Before ground disturbing activities, project proponents shall retain a qualified biologist to determine whether the project site could affect suitable habitat for burrowing owl. For projects or ground-disturbing activities with potential to disturb suitable habitat for burrowing owl, the following measures shall be implemented.

- ▲ The project proponent shall retain a qualified biologist to conduct focused breeding and nonbreeding season surveys for burrowing owls in areas of suitable habitat on and within 1,500 feet of the project site and any required off-site improvements. Surveys shall be conducted before the start of construction activities and in accordance with Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) or the most recent CDFW protocols.
- ▲ If no occupied burrows are found, a letter report documenting the survey methods and results shall be submitted to CDFW and no further mitigation will be required.
- ▲ If an active burrow is found during the nonbreeding season (September 1 through January 31), the project proponent shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of CDFW's 2012 Staff Report. Burrowing owls shall not be excluded from occupied burrows until the project's burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a plan for creation, maintenance, and monitoring of artificial burrows in suitable habitat proximate to the burrows to be destroyed, that provide substitute burrows for displaced owls.
- ▲ If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and will be provided with a 150- to 1,500-foot protective buffer unless a qualified

biologist verifies through noninvasive means that either: (1) the birds have not begun egg laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer shall depend on the time of year and level disturbance as outlined in the CDFW Staff Report (CDFG 2012) or the most recent CDFW protocols. The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to ensure burrowing owls are not detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report or the most recent CDFW protocols.

- ▲ If active burrowing owl nests are found on the site and are destroyed by project implementation, the project proponent shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW 2012 Staff Report or the most recent CDFW protocols, which states that permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat shall be mitigated such that habitat acreage, number of burrows, and burrowing owls impacted are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The project proponent shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:
 - Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species range wide.
 - If feasible, mitigation lands shall be provided adjacent or proximate to the site so that displaced owls can relocate with reduced risk of take. Feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient suitable habitat to support displaced owls that may be preserved in perpetuity.
 - If suitable habitat is not available for conservation adjacent or proximate to the project site, mitigation lands shall be focused on consolidating and enlarging conservation areas outside of urban and planned growth areas and within foraging distance of other conservation lands. Mitigation may be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. If mitigation credits are not available from an approved bank and mitigation lands are not available adjacent to other conservation lands, alternative mitigation sites and acreage shall be determined in consultation with CDFW.
 - If mitigation is not available through an approved mitigation bank and will be completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and if the numbers are maintained over time. Measures of success, as suggested in the 2012 Staff Report, shall include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

Swainson's Hawk

Project proponents shall retain a qualified biologist to determine whether the potential project site contains suitable habitat for Swainson's hawk. For projects or ground-disturbing activities (including any required off-site improvements) with potential to affect Swainson's hawk and other raptor nests, or remove Swainson's hawk foraging habitat, the project proponent shall consult with CDFW with respect to the following measures proposed to mitigate for habitat removal and potential nest disturbance. As part of the consultation, the project proponent may seek take authorization under Section 2081 of the Fish and Game Code. The following

measures will be implemented and are intended to avoid, minimize, and fully mitigate impacts to Swainson's hawk, as well as other raptors:

- ▲ For construction activities that would occur within 0.25 mile of a known or likely Swainson's hawk nest site (identified based on previous years' use by Swainson's hawk), the project proponent shall attempt to initiate construction activities before nest initiation phase (i.e., before March 1). Depending on the timing, regularity, and intensity of construction activity, construction in the area before nest initiation may discourage a Swainson's hawk pair from using that site and eliminate the need to implement further nest-protection measures, such as buffers and limited construction operating periods around active nests. Other measures to deter establishment of nests (e.g., reflective striping or decoys) may be used before the breeding season in areas planned for active construction. However, if breeding raptors establish an active nest site, as evidenced by nest building, egg laying, incubation, or other nesting behavior, near the construction area, they shall not be harassed or deterred from continuing with their normal breeding activities.
- ▲ For project activities, including tree removal, that begin between March 1 and September 15, qualified biologists shall conduct preconstruction surveys for Swainson's hawk and other nesting raptors and to identify active nests on and within 0.5 mile of the project site. The surveys shall be conducted before the beginning of any construction activities between March 1 and September 15, following the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000).
- ▲ Impacts to nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of 0.25-mile-wide buffer for Swainson's hawk and 500-feet for other raptors, but the size of the buffer may be adjusted if a qualified biologist and the project proponent, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.
- ▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.
- ▲ To mitigate for permanent losses of Swainson's hawk foraging habitat, the project proponent will provide foraging habitat compensation at a 1:1 ratio (i.e., one acre of compensatory habitat for each acre developed). This compensation may be achieved through one or more approaches, including providing replacement habitat through fee title or conservation easement, or purchase of credits in a CDFW-approved Swainson's hawk conservation bank.

Tricolored Blackbird

Project proponents shall retain a qualified biologist to determine whether suitable habitat for tricolored blackbird is present on or within 500 feet of the project site. For projects or ground-disturbing activities that could affect tricolored blackbird nesting habitat, the following measures shall be implemented to avoid or minimize loss of active tricolored blackbird nests:

- ▲ To minimize the potential for loss of tricolored blackbird nesting colonies and other nesting birds, vegetation removal activities shall commence during the nonbreeding season (September 1-January 31) to the extent feasible. If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation would be required.
- ▲ Before removal of any vegetation within potential nesting habitat between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting tricolored blackbirds (colonies). The surveys shall be conducted no more than 14 days before construction commences. If no active nests or tricolored blackbird colonies are found during focused surveys, no further action under this measure will be

required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated, and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest colony is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.

Mitigation Measure 4.4-5b: Protect northern harrier, white-tailed kite, and other nesting raptor nests (Net SAP Area and PRSP Area)

For projects or ground-disturbing activities (including any required off-site improvements) with potential to affect northern harrier, white-tailed kite, or other raptor nests (i.e., activities proposed to occur in or within 500 feet of suitable habitat), the project proponent shall implement the following preconstruction survey and nest avoidance measures.

- ▲ For project activities, including tree and other vegetation removal, that begin between February 1 and September 15, qualified biologists shall conduct preconstruction surveys for white-tailed kite and northern harrier and to identify active nests on and within 500 feet of the project site. The surveys shall be conducted before the beginning of any construction activities between February 1 and September 15.
- ▲ Impacts to nesting raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot-wide buffer for these raptor species, but the size of the buffer may be adjusted if a qualified biologist and the project proponent, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.
- ▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree. Similarly, because northern harrier is a ground nester, ground disturbances within suitable nesting habitat for northern harrier shall not commence unless a survey verifies that an active nest is not present.

Mitigation Measure 4.4-5c: Protect loggerhead shrike, song sparrow, and grasshopper sparrow nests (Net SAP Area and PRSP Area)

Before any ground-disturbing project activities begin, a qualified biologist will identify potential habitat for nesting loggerhead shrike, song sparrow, grasshopper sparrow, and other special-status bird species in areas that could be affected during the breeding season (February 1–August 31) by construction. To the extent feasible, construction-related vegetation removal shall occur outside the nesting season. If vegetation removal or other disturbance related to construction is required during the nesting season, focused surveys for active nests of special-status birds will be conducted before and within 14 days of initiating construction. A qualified biologist will conduct preconstruction surveys to identify active nests that could be affected. The appropriate area to be surveyed and timing of the survey may vary depending on the activity and species that could be affected. If no active nests are found during focused surveys, no further action under this measure will be required. If an active loggerhead shrike, song sparrow, grasshopper sparrow, or other special-status bird nest is located during the preconstruction surveys, the biologist will notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives will be evaluated and implemented to the extent feasible. If avoidance is not feasible, construction will be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests

shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.

Mitigation Measure 4.4-5d: Minimize disturbance and loss of bat roost sites (Net SAP Area and PRSP Area)

Bat surveys shall be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing during each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., Sonobat, Anabat). Removal of any significant roost sites located will be avoided to the extent feasible. If it is determined that an active roost site cannot be avoided and will be affected, bats will be excluded from the roost site before the site is removed. The biologist shall first notify and consult with CDFW on appropriate bat exclusion methods and roost removal procedures. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Once it is confirmed that all bats have left the roost, crews will be allowed to continue work in the area.

Exclusion efforts may be restricted during periods of sensitive activity (e.g., during winter hibernation or while females in maternity colonies are nursing young [generally, during late spring and summer]). If a hibernation or maternity roosting site is discovered, the project developer will consult with CDFW to establish appropriate exclusionary buffers until all young are determined to be volant (i.e., able to fly) by a qualified biologist. Once it is determined that all young are volant, passive exclusion devices shall be installed and all bats will be allowed to leave voluntarily. Once it is determined by a qualified biologist that all bats have left the roost, crews will be allowed to work within the buffer zone.

Mitigation Measure 4.4-5e: Protect active American badger den sites (Net SAP Area and PRSP Area)

Before construction activities within suitable habitat for American badger, a qualified biologist shall conduct surveys to identify any American badger burrows/dens. These surveys shall be conducted not more than 15 days before the start of construction. If occupied burrows are not found, further mitigation will be not required. If occupied burrows are found, CDFW shall be notified and impacts to active badger dens shall be avoided by establishing exclusion zones around all active badger dens, within which construction-related activities shall be prohibited until denning activities are complete or the den is abandoned. A qualified biologist shall monitor each den once per week to track the status of the den and to determine when a den area has been cleared for construction.

Mitigation Measure 4.4-5f: Coordinate with City of Roseville regarding mitigation for impacts on special-status reptile, bird, and mammal species resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of special-status animals resulting from construction of the Pleasant Grove Retention Facility and other off-site improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts to special-status reptile, bird, and mammal species. Placer County would play a coordinating role but would have no jurisdiction or control over the timing and implementation of mitigation for off-site improvements that occur outside its own jurisdiction.

Significance after Mitigation

Implementation of Mitigation Measures 4.4-5a, 4.4-5b, 4.4-5c, 4.4-5d, and 4.4-5e would avoid the loss of individuals, nests, occupied roosts, or other active breeding sites of special-status reptile, bird, and mammal species (western pond turtle, burrowing owl, loggerhead shrike, white-tailed kite, northern harrier, Swainson's hawk, tricolored blackbird, song sparrow, grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger), and compensate for any unavoidable loss of occupied burrowing owl habitat and

Swainson's hawk foraging habitat. With implementation of these measures, the project would not substantially affect the distribution, breeding productivity, viability, or the regional population of any special-status reptile, bird, and mammal species. Therefore, potential impacts to special-status reptile, bird, and mammal species within the County's jurisdiction would be reduced to a less-than-significant level. While it is likely that impacts would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site improvements that occur within the city. Therefore, impacts on special-status reptile, bird, mammal and fish species resulting from off-site improvements within the City of Roseville's jurisdiction would remain potentially **significant and unavoidable**.

Impact 4.4-6: Loss or degradation of riparian habitat

Implementing the project could result in loss or degradation of riparian habitat considered sensitive in the Placer County General Plan and protected under Section 1602 of the Fish and Game Code. Loss and degradation of riparian habitat would be **significant** impact.

Net SAP Area

The majority of riparian habitat within the net SAP area is along Orchard Creek in the designated Preserve/Mitigation Reserve land use and so it would not be directly affected by net SAP development. However, there is riparian habitat along the tributary to Pleasant Grove Creek in the southeast portion of the net SAP area, planned for Business Park and Light Industrial land uses. Development in these areas would result in direct removal of 7 acres of riverine/riparian complex, as well as degradation through indirect disturbance. Indirect impacts include loss of habitat values from adjacent noise and light disturbances, intrusion by humans and domestic pets, degradation caused by pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, altered site hydrology from the construction of adjacent industrial development, trails, and roadways, and the introduction of invasive species or noxious weeds from the surrounding development. The loss and degradation of riparian habitat that could occur with net SAP implementation would constitute an adverse effect on a sensitive natural community regulated by CDFW under Section 1602 of the California Fish and Game Code. This impact would be significant.

PRSP Area

The PRSP has been designed to avoid removal of riparian habitat through preservation of riverine/riparian complexes within designated open space preserve areas consistent with SAP policies. Nonetheless, these riverine/riparian complexes would be transected by proposed road crossings and recreational trails, foot bridges, and passive parks would be allowed uses within the open space preserves thereby increasing human intrusion into preserved riparian areas, which can result in soil compaction, vegetation trampling, and disturbance of wildlife using the riparian habitat, particularly nesting birds. All trails, bridges, and other infrastructure located within open space preserves will be subject to terms of regulatory permitting or the PCCP. Flood water conveyance and detention and water quality treatment or filtration features could also be constructed within the open space preserves. Construction of roadway crossings and recreational and water detention and treatment facilities could cause direct removal of riparian vegetation within the open space areas. Proposed extension or widening of Foothills Boulevard and Sunset Boulevard outside the PRSP boundaries but within the SAP area would also require excavation in areas that contain riverine/riparian complexes and cross drainage channels. Thus, these improvements could result in removal of riparian vegetation.

In addition, habitat functions would be substantially diminished for most species that currently use these habitats because of the encroachment of developed land uses, intrusion by humans and domestic pets, increased noise and light pollution, dumping or accumulation of litter and debris that is harmful to wildlife, and alteration of hydrologic regime (e.g., transition from seasonal to perennial inundation). Development of the PRSP would result in conversion of riverine/riparian complexes surrounded by annual grasslands to linear habitat corridors surrounded by developed land uses. While some species would still use the riparian corridors for movement, foraging, or even nesting, this riparian habitat would no longer be suitable for some

sensitive bird species. The loss and degradation of riparian habitat that could occur with PRSP implementation would constitute an adverse effect on a sensitive natural community regulated by CDFW under Section 1602 of the California Fish and Game Code. This impact would be significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Creation and use of the proposed Pleasant Grove Retention Facility would require extensive channel and weir improvements along Pleasant Grove Creek extending 3,900 feet upstream of the Pleasant Grove Retention Facility property (Exhibit 3-23). Control structures, such as weirs and pipe culverts with valves or gates, would be installed at multiple locations within Pleasant Grove Creek. A low-flow return channel would be built to convey low flows back to the creek at a rate that mimics preproject flow rates. A containment levee would be constructed around the retention basins. The formerly channelized portion of University Creek that flows through the North Basin would be restored to a more natural stream form, similar to its historic alignment through Pleasant Grove Retention Facility. Proposed work within or adjacent to Pleasant Grove Creek and University Creek would result in direct removal of riparian vegetation and could result in indirect disturbances (e.g. change in floodplain connectivity or in flood duration, hydrological modifications) that result in loss of riparian vegetation or loss of riparian habitat values. This impact would be potentially significant.

Other Off-Site Transportation and Utility Improvements

Proposed off-site roadway expansions (that were not covered under previous CEQA documents) would occur within existing developed rights of way. The Woodcreek Recycled Water Tank site is located near an area that contains riverine/riparian complexes; however, improvements would be located outside of these areas. These off-site transportation and utility improvements would not occur in areas that contain riverine/riparian complexes; therefore, this impact would be less than significant.

Conclusion

Implementing the project would result in direct removal of riparian habitat and indirect disturbances that result in loss of riparian vegetation or loss of riparian habitat values. This impact would be **significant**.

Mitigation Measure 4.4-6a: Avoid, minimize, or compensate for loss of riparian habitat (Net SAP Area and PRSP Area)

- ▲ The County shall require future project proponents, including for off-site improvements, to retain a qualified botanist to identify, map, and quantify riparian habitat and other sensitive natural communities on the project site before final project design is completed.
- ▲ If impacts on riparian habitat cannot be avoided as part of future project construction, the project proponent shall compensate for loss of riparian habitat through participation in the PCCP if it has been adopted and is available for mitigation for project impacts. Per the PCCP, mitigation shall be through off-site restoration at an area ratio of at least 1.5:1 and shall be funded through fees paid in addition to land conversion fees. On-site restoration by the project proponent may serve in lieu of some or all of the Special Habitat fees if it meets all the applicable requirements described in the PCCP conservation measures and implementation plan.
- ▲ If the PCCP is not adopted, the project proponent shall consult with the County and CDFW to determine appropriate mitigation for removal of riparian habitat resulting from project implementation. Mitigation measures may include restoration of affected habitat on site and in kind, restoration of another section of stream within the project area, habitat restoration off site, or payment of a mitigation fee to a CDFW-approved mitigation bank. The compensation habitat shall be similar in composition and structure to the habitat/natural community to be removed and shall be at ratios adequate to offset the loss of habitat functions in the affected project area so that there is no-net-loss of riparian habitat functions, consistent with Placer County General Plan policy and CDFW regulations.

- ▲ If required, the project proponents shall obtain a Section 1602 streambed alteration agreement from CDFW and comply with all conditions of the agreement.

Mitigation Measure 4.4-6b: Coordinate with City of Roseville regarding mitigation for impacts on riparian habitat resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of riparian habitat resulting from construction of the Pleasant Grove Retention Facility within the City's jurisdiction. As a part of its CEQA process for the Pleasant Grove Retention Facility project, the City of Roseville, as lead agency, would identify and implement appropriate mitigation for significant impacts to riparian habitat. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements that occur outside its jurisdiction.

Significance after Mitigation

Successful implementation of Mitigation Measures 4.4-6a would reduce potentially significant impacts related to riparian habitat within the County's jurisdiction to a less-than-significant level because it would require project proponents to avoid these habitats if technically feasible and would require compensation for loss of riparian habitat resulting in no net loss of riparian habitat functions. While it is likely that impacts would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville. Therefore, impacts on riparian habitat resulting from off-site improvements within the City of Roseville's jurisdiction would remain potentially **significant and unavoidable**.

Impact 4.4-7: Conflict with local policies or ordinances protecting biological resources

Implementing the project would result in development in areas containing trees protected under the County Tree Ordinance and sensitive biological resources that are afforded protections under Placer County General Plan goals, policies, and implementation programs, including special-status plants and animals, wetland and riparian habitats, vernal pool complexes, streams and stream zones, and large, unfragmented areas of natural habitat. Plan implementation would therefore result in removal and/or degradation of these resources and could conflict with these local ordinances and policies. This would be a **potentially significant** impact.

Net SAP Area

The SAP incorporates goals and policies that are consistent with and supplement the goals and policies of the Placer County General Plan. Trees are relatively scarce in the net SAP area, and a large percentage of those present are ornamental trees associated with the existing rural residences and commercial developments in the net SAP area. Most of the native trees present in the net SAP area are along Orchard Creek within the proposed Preserve/Mitigation Reserve land use designation (already an existing preserve) so they would not be removed. Nonetheless, there are scattered trees elsewhere in the net SAP area that may be subject to removal as a consequence of future development, and some of these maybe protected under County Tree Ordinance. Indirect impacts from ground-disturbing activities within drip lines of protected trees could also result if the health of the tree is adversely affected leading to eventual tree mortality. Tree damage or removal could conflict with the County tree ordinance. This impact would be potentially significant.

PRSP Area

The PRSP area contains over 200 trees protected under the County Tree Ordinance (ECORP Consulting 2006) and other sensitive biological resources protected under Placer County General Plan goals, policies, and implementation programs, such as riparian habitat and stream systems. PRSP, as part of the SAP, would implement SAP goals and policies that are consistent with and supplement the goals and policies of the Placer County General Plan. As part of these policies, PRSP has been designed to avoid stream systems and riparian corridors and these areas support the only trees protected under the County tree ordinance. Nonetheless, some protected trees could be removed as a consequence of constructing roadway crossings over stream channels that support mature oak and other native tree species on their banks, both within the

PRSP boundaries and within roadway improvement areas outside of the PRSP boundaries but within the SAP area (e.g., Foothills Boulevard and Sunset Boulevard). Indirect impacts from ground-disturbing activities within drip lines of protected trees could also result if the health of the tree is adversely affected leading to eventual tree mortality. Tree damage or removal could conflict with the County tree ordinance. This impact would be potentially significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Development of the Pleasant Grove Retention Facility, particularly work within the Pleasant Grove riparian corridor, could result in removal of trees protected under the City of Roseville Tree Ordinance. Indirect impacts from ground-disturbing activities within drip lines of protected trees could also result if the health of the tree is adversely affected leading to eventual tree mortality. Tree damage or removal could conflict with the City tree ordinance. This impact would be potentially significant.

Off-Site Transportation and Utility Improvements

Proposed improvements to the Woodcreek Recycled Water Tank site could require excavation in areas that contain mature trees. Thus, these improvements could result in removal of trees protected under the City of Roseville Tree Ordinance. Indirect impacts from ground-disturbing activities within drip lines of protected trees could also result if the health of the tree is adversely affected leading to eventual tree mortality. Tree damage or removal could conflict with the City tree ordinance. This impact would be potentially significant.

Conclusion

Implementing the project could result in removal of trees protected under the Placer County Tree Ordinance or City of Roseville Tree Ordinance. Indirect impacts from ground-disturbing activities within drip lines of protected trees could also result if the health of the tree is adversely affected leading to eventual tree mortality. Tree damage or removal could conflict with the County or City tree ordinances. This impact would be **potentially significant**.

Mitigation Measure 4.4-7a: Avoid or compensate for loss of protected trees (Net SAP Area and PRSP Area)

- ▲ The County shall require future project proponents, including proponents for off-site improvements, to avoid tree removal or death if feasible and appropriate, through incorporation of these features into project design and planning.
- ▲ All trees retained on-site shall be protected from construction-related impacts by placing exclusion fencing one foot outside the drip line of retained trees, or one foot outside the outer edge of the riparian woodland habitat, and maintaining said fencing through the duration of construction.
- ▲ If any trees protected under County ordinance cannot feasibly be avoided, they shall be mitigated through the payment of PCCP land conversion fees and incorporation of its avoidance and minimization measures into the project. If the PCCP is not approved prior to project development, trees subject to loss shall be replaced at a 1:1 ratio (1 new inch dbh of tree for each inch dbh lost), unless alternative mitigation is approved by the County pursuant to Placer County Code Article 12.16. Replacement trees will be a minimum of 15-gallon size plantings and will be the same or similar native species as the tree removed. Replacement trees may be planted on-site to areas that would not be developed or to nearby offsite open space areas. Alternatively, if approved by the County, trees to be removed may be transplanted to other open space areas in proximity to the SAP area. Payment of an in-lieu fee to the Placer County tree preservation fund may also be allowed to compensate for tree loss.
- ▲ The project proponent required to replace lost trees shall provide appropriate irrigation and maintenance to replacement trees and will enter a maintenance agreement with the County. The project proponent shall post a deposit for the replacement cost of replanted trees to the County and the deposit shall be retained until the County arborist certifies that conditions of the tree permit have been satisfied.

- Any replacement tree that is dead after three years shall be replaced in kind with equal-sized, healthy replacements and these trees shall be maintained until established.

Mitigation Measure 4.4-7b: Coordinate with City of Roseville regarding mitigation for loss of trees protected under City ordinance resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of trees resulting from construction of the Pleasant Grove Retention Facility and other off-site improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville as lead agency, would identify and implement appropriate mitigation for significant loss of trees and would comply with City ordinances. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements that occur outside its jurisdiction.

Significance after Mitigation

Successful implementation of Mitigation Measure 4.4-7a would reduce potentially significant impacts related to conflicts with County ordinances and policies protecting biological resources to a **less-than-significant** level because it would require project proponents to avoid protected trees, if feasible, and would require compensation for unavoidable loss of protected trees consistent with Placer County Code Article 12.16. While it is likely that impacts for tree loss would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville, and has no ability to enforce City ordinances. Therefore, impacts related to conflicts with the City of Roseville's tree ordinance resulting from off-site improvements would remain potentially **significant and unavoidable**.

Impact 4.4-8: Interfere substantially with wildlife movement

Implementing the project would interfere with the movement of native resident wildlife species by developing large areas of natural habitat and eliminating connectivity across large portions of the SAP area. This impact would be **significant**.

Net SAP Area

Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors as these features can provide cover and access across a landscape. Movement corridors can include dispersal corridors between populations that allow genetic exchange within a metapopulation, corridors used for daily movements between areas that provide different habitat functions, for example, between areas that provide thermal cover and hiding cover and areas used for foraging and obtaining water; as well as migratory routes used for seasonal migrations between summer and winter ranges. There are no established migratory routes through the net SAP area that are vital for the movement of any resident or migratory fish or wildlife species or population and implementing the net SAP would not substantially interfere with successful seasonal migration for any species. According to the California Essential Habitat Connectivity Project, the SAP area is not located within a Natural Landscape Block or Essential Habitat Connectivity area (Spencer et al. 2010).

Buildout of the net SAP area would result in conversion of approximately 2,571 acres of existing open space habitat to developed land uses. This existing open space connects to other open space to the north and west of the net SAP area and provides movement and dispersal corridors for native wildlife species across the site, including to Orchard Creek and Auburn Ravine in the north, and Pleasant Grove Creek to the south and west. At full buildout, the PRSP open space preserve to the south and the existing and proposed habitat conservation lands to the north would be isolated from each other by development of the remaining net SAP area between. Therefore, implementing the SAP would eliminate habitat connectivity across the SAP area between existing vernal pool grasslands to the south and west of the plan area and the Reserve/Mitigation Preserve area to the north, and eliminate wildlife movement opportunities through the SAP area for both

common and special-status species. This would further fragment the remaining vernal pool complexes in western Placer County. This impact would be **significant**.

PRSP Area

While the PRSP has been designed to preserve most of the stream systems and riparian corridors in the PRSP area, PRSP development would result in disruption of these corridors with multiple roadway and trail crossings. Furthermore, because the corridor proposed for open space preservation is linear (ranging from approximately 200 to 450 feet in width), habitat quality may be diminished in these open space corridors and they may not provide secure movement opportunities for many species following development. In addition, the open space preserve corridors would not connect to any open space or natural habitat areas, but rather end at the northern boundary of the PRSP where the Placer Parkway is proposed to be built. Thus, these corridors represent dead ends that would allow wildlife to move from natural habitat areas to the west of the PRSP area, but provide no outlet to other habitat outside the PRSP area. This corridor could be detrimental to wildlife that would be routed to developed areas through this corridor rather than to other natural habitat areas. Therefore, implementing PRSP could substantially interfere with wildlife movement opportunities through the plan area for both common and special-status species. This impact would be **significant**.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Development of the Pleasant Grove Retention Facility would involve work within the Pleasant Grove riparian and stream corridor, but would not interfere with wildlife movement through this area, eliminate a wildlife movement corridor, or cause any areas of wildlife habitat to become isolated or unusable. This impact would be less than significant.

Off-Site Transportation and Utility Improvements

Proposed off-site roadway improvements would be located within and along developed rights of way. Proposed improvements to the Woodcreek Recycled Water would not occur within nearby riverine/riparian complexes. Thus, these off-site improvements would not result in removal of riparian vegetation cover and would not substantially interfere with wildlife movement through the area, eliminate a wildlife movement corridor, or cause any areas of wildlife habitat to become isolated or unusable. This impact would be less than significant.

Conclusion

Implementing the SAP would result in development of large areas of existing open space habitat that currently provides animal movement and dispersal corridors across the site. This development would cause fragmentation of vernal pool complexes, eliminate connectivity between the PRSP area open space corridors and Reserve/Mitigation Preserve areas to the north, and reduce opportunities for genetic exchange within and among metapopulations. Implementation of Policy NR 4.2 would reduce these impacts by establishing a movement corridor across the net SAP area that connects the Reserve/Mitigation Preserve lands in the north to proposed open space preserve areas in the PRSP area; however, interruption of the open space preserve areas by multiple roadway and trail crossings would still substantially interfere with wildlife movement. This impact would be **significant**.

Mitigation Measure 4.4-8a: Provide wildlife crossing for Placer Parkway (Net SAP Area and PRSP Area)

The County shall coordinate with PCTPA during the design of Placer Parkway to incorporate safe wildlife-crossing features, as feasible. Design features that promote wildlife crossing could include (but may not be limited to) sizing bridges/culverts sufficiently to allow wildlife movement between the Net SAP and PRSP open space areas and locating them to maximize the connection between open space areas. The County shall work with a qualified biologist to determine the appropriate size and location of these wildlife crossing points.

Mitigation Measure 4.4-8b: Provide interconnected natural areas (Net SAP Area)

The County shall require the maintenance of open space and natural areas in the net SAP area that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement, and sustain ecosystems. The County will work with proponents of future projects in the net SAP area to identify and design an appropriate wildlife movement corridor, consistent with the PCCP conservation strategy (if adopted), between the open space preserve area in the PRSP area and the Reserve/Mitigation Preserve lands in the northern portion of the SAP. The location of movement corridors should be coordinated with the wildlife crossings in Placer Parkway (See Mitigation Measure 4.4-8a).

Mitigation Measure 4.4-8c: Provide wildlife crossing structures (Net SAP Area and PRSP Area)

The County shall require road crossings over the stream system open space areas to be designed to provide safe wildlife movement using wildlife overpasses, underpasses, bridges, or culverts that are adequately sized to allow safe crossing even during high water. Design of crossings shall be based on movement requirements for the range of common and sensitive native wildlife species in the region. Where feasible and appropriate, fencing may be used to direct animals toward wildlife crossing structures and away from roadways.

Significance after Mitigation

Successful implementation of Mitigation Measure 4.4-8a through 4.4-8c would minimize potentially significant impacts related to wildlife movement because these measures would require maintenance of interconnected natural areas sufficient to accommodate wildlife movement, which would protect biodiversity and sustain ecosystems. These measures would also require provision of a movement corridor linking the open space preserves in the PRSP area to Reserve/Mitigation Preserve areas to the north, reducing habitat fragmentation and eliminating risks from dead-end corridors in the PRSP area. It would also allow safe wildlife movement through the plan area by requiring wildlife crossings be incorporated into road designs where they dissect the open space preserves.

However, implementation of Mitigation Measure 4.4-8a falls outside the County's jurisdiction, and the feasibility of incorporating wildlife movement features into the design of Placer Parkway is uncertain. Although implementation of this mitigation measure, along with measures 4.4-8b and 4.4-8c, would reduce the impact to a less-than-significant level, because the feasibility is uncertain and the County cannot enforce the measure, the impact remains potentially **significant and unavoidable**.

Impact 4.4-9: Interfere substantially with native nursery sites

Project implementation would result in loss of human-made structures and trees that may support maternity bat roosts. If these structures are used by bats as maternity colony roosts, implementation of the project could result in mortality of large numbers of bats and inability to reproduce young. This impact would be **potentially significant**.

Net SAP Area

The net SAP area does not support known native wildlife nursery sites, such as deer fawning areas or colonial nesting bird rookeries, but bridges and large trees on site could support maternity bat roosts. Roosting habitat is typically a limiting factor to bat distribution. Many bat species roost in large colonies during maternity and maternity colony roosts can be active from approximately early April until mid-October. If a maternity bat roost were present in existing trees or bridges, removal of these structures, or construction disturbances that cause roost abandonment, could result in loss of a maternity colony. Because large numbers of common bat species can roost in a single maternity colony, these maternity colonies can represent a large proportion of the population in any given area and loss of a maternity colony can wipe out a large proportion of a regional population. Loss of a maternity colony would be a potentially significant impact.

PRSP Area

The PRSP area does not support known native wildlife nursery sites, such as deer fawning areas or colonial nesting bird rookeries, but bridges and large trees on site, particularly in riparian areas, could support

maternity bat roosts. Roosting habitat is typically a limiting factor to bat distribution. Many bat species roost in large colonies during maternity and maternity colony roosts can be active from approximately early April until mid-October. If a maternity bat roost were present in existing trees or bridges, removal of these structures, or construction disturbances that cause roost abandonment, could result in loss of a maternity colony. Because large numbers of common bat species can roost in a single maternity colony, these maternity colonies can represent a large proportion of the population in any given area and loss of a maternity colony can wipe out a large proportion of a regional population. Loss of a maternity colony would be a potentially significant impact.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

The Pleasant Grove Retention Facility site supports large trees in riparian areas along Pleasant Grove Creek and University Creek that could support maternity bat roosts. Construction in these areas could result of removal of trees containing maternity roosts or disturbances that cause adult bats to abandon the roost and their young. Loss of a maternity colony would be a potentially significant impact.

Off-Site Transportation and Utility Improvements

Proposed expansion of off-site roadways and improvements to the Woodcreek Recycled Water Tank site would require work in areas that contain large trees and bridges that could support maternity bat roosts. Therefore, this work could result in direct removal of maternity bat roosts, or disturbances that cause roost abandonment and death of young. Loss of a maternity colony would be a potentially significant impact.

Conclusion

Implementing the project could result in removal of trees or work on or near bridges that could potentially support maternity bat roosts. Roosting habitat is typically a limiting factor to bat distribution. Many bat species roost in large colonies during maternity and maternity colony roosts can be active from approximately early April until mid-October. If a maternity bat roost were present in existing trees or bridges, removal of these structures, or construction disturbances that cause roost abandonment, could result in loss of a maternity colony. Because large numbers of common bat species can roost in a single maternity colony, these maternity colonies can represent a large proportion of the population in any given area and loss of a maternity colony can wipe out a large proportion of a regional population. This impact would be **potentially significant**.

Mitigation Measures

Implement Mitigation Measure 4.4-5d: Minimize Disturbance and Loss of Bat Roost Sites.

Mitigation Measure 4.4-9: Coordinate with City of Roseville regarding mitigation for loss of maternity bat colonies resulting from off-site improvements outside the County's jurisdictional boundaries (Other Supporting Infrastructure)

The County shall coordinate with the City of Roseville regarding mitigation for loss of maternity bat colonies resulting from construction of the Pleasant Grove Retention Facility and off-site transportation and utility improvements within the City's jurisdiction. As a part of its CEQA process for each improvement project, the City of Roseville would identify and implement appropriate mitigation for significant impacts to maternity bat colonies. Placer County would play a coordinating role but would have no control over the timing and implementation of mitigation for off-site improvements that occur within the City of Roseville.

Significance after Mitigation

Successful implementation of Mitigation Measures 4.4-5d would reduce potentially significant impacts related to maternity bat roosts within the County's jurisdiction to a less-than-significant level because it would require preconstruction surveys for bats and avoidance of active maternity roosts. While it is likely that impacts would be mitigated by the City of Roseville in its role as lead agency for projects within its jurisdiction, Placer County would have no control over the timing and implementation of mitigation for off-site

improvements that occur within the City of Roseville. Therefore, loss of maternity bat colonies resulting from off-site improvements within the City of Roseville's jurisdiction would remain **significant and unavoidable**.

Impact 4.4-10: Conflict with an approved conservation plan

Project implementation could result in conflicts with the goals of the proposed PCCP, should the Plan be implemented before project commencement. In general, the Specific Plan has been designed to provide consistency with the conservation strategy of the proposed PCCP. This impact would be **less than significant**.

Net SAP Area

The SAP has been designed for consistency with the PCCP and SAP policies call for participation in the PCCP for future project permitting and mitigation once the PCCP has been adopted, and incorporates policies that are consistent with the conditions on covered activities that are proposed in the PCCP. The areas proposed for development under the net SAP are identified in the PCCP as potential future growth areas and are therefore counted as areas of habitat loss that would be permitted under the plan. The exceptions are existing reserves along Orchard Creek (northeast portion of SAP area), the existing Warm Springs and Moore Ranch Conservancy preserves in the northwest portion of the SAP, and the north central portion of the SAP, which is identified in the PCCP as a Reserve Acquisition Area. These areas are designated as Preserve/Mitigation Reserve in the SAP Land Use Plan so this is consistent with the PCCP and implementing the net SAP would not conflict with the PCCP as it is currently proposed. Therefore, implementing the PRSP would not reduce the effectiveness of the PCCP conservation strategy and would not interfere with attaining the overall PCCP goals and objectives. This impact would be less than significant.

PRSP Area

As a part of the SAP, the PRSP incorporates SAP policies for consistency with the PCCP. Most of the PRSP area is identified in the PCCP as potential future growth area and counted as an area of habitat loss that would be permitted under the plan. Therefore, implementing the PRSP would not reduce the effectiveness of the PCCP conservation strategy and would not interfere with attaining the overall PCCP goals and objectives. This impact would be less than significant.

Other Supporting Infrastructure

Pleasant Grove Retention Facility

Development of the Pleasant Grove Retention Facility would not eliminate any habitat identified for preservation under the PCCP because the site is in the City of Roseville, which is not within the plan area. Furthermore, the City of Roseville is not participating in the plan. Therefore, constructing the Pleasant Grove Retention Facility has no potential to interfere with an adopted HCP because it is not within the PCCP plan area and there are no other adopted or proposed HCPs or NCCPs that cover the Pleasant Grove Retention Facility or other off-site improvements in the City of Roseville. There would be no impact.

Off-Site Transportation and Utility Improvements

This impact would be the same as discussed for the Pleasant Grove Retention Facility.

Conclusion

The SAP has been designed for consistency with the PCCP and SAP policies call for participation in the PCCP for future project permitting and mitigation once the PCCP has been adopted, and incorporates policies that are consistent with the conditions on covered activities that are proposed in the PCCP. Implementing the SAP would not conflict with the PCCP as it is currently proposed. Therefore, implementing the PRSP would not reduce the effectiveness of the PCCP conservation strategy and would not interfere with attaining the overall PCCP goals and objectives. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

CUMULATIVE IMPACTS

Generally, the geographic extent of cumulative impacts on biological resources consists of western Placer County and the Central Valley region of California that supports similar biological resource values and functions to those of the project area; however, this cumulative analysis also considers affected biological resources at a statewide scale where applicable.

Past and present actions by humans have substantially altered biological resources in the Central Valley region of California, including western Placer County, specifically, compared to historical conditions. Among the most important of these past actions have been conversion of natural vegetation and habitats to agricultural and developed land uses; fill and alteration of aquatic habitats; flood control and water supply projects; and the introduction of invasive species, which in many cases have competed with, preyed upon, and degraded habitat for native species. More recently, the large-scale conversion of agricultural habitats to urban land uses has resulted in substantial loss of habitat for species such as state-listed Swainson's hawk that have adapted to use agricultural habitats in response to loss of their natural habitats.

Past, present, and foreseeable future urbanization in western Placer County has contributed substantially to the loss of grassland, wetland, and agricultural habitats that are important to many species in the region. Approximately 30,000 acres of land currently characterized by natural habitats or agricultural uses are projected to be converted to developed land uses in Placer County over the next 50 years. Habitats that may be converted under this development scenario include approximately 12,550 acres of vernal pool complexes with 585 acres of vernal pool type wetlands. Under the current local, state and federal regulatory permitting requirements, absent the PCCP comprehensive conservation strategy, this project-by-project conversion of natural habitats could contribute to the ongoing decline of these habitats in the region. Overall, the cumulative projects identified in Table 4.0-2 would develop more than 50,000 acres of land in the region, adding more than 100,000 residential units and millions of square feet of non-residential building floor area.

Cumulative Impact 4.4-11: Contribution to loss and degradation of state or federally protected waters

Vernal pools are one of California's most threatened habitats with an estimated 75 to 90 percent of the historic California vernal pool habitat having been lost (Placer Land Trust 2009a). Results of surveys of vernal pool distribution in the Central Valley indicate that 13 percent of the 1,032,853 acres of vernal pool habitat mapped before 1997 was gone by 2005 (Placer Land Trust 2009b). The vast majority of vernal pool habitat losses between 1976 and 2005 resulted from conversion of rangeland to intensive agriculture (Placer Land Trust 2009a). As such, many of these changes in land use were not permitted and wetland losses were not mitigated. A large percentage of the statewide loss has occurred in Placer County where approximately 17,115 acres of vernal pool habitat (or 35 percent of historic baseline) was converted to other land uses, primarily agriculture and urban development, in the period between 1994 and 2005 (Placer Land Trust 2009b). Many projects near the project area have been implemented recently or are in various stages of planning and entitlement. Planned projects in the cities of Lincoln, Roseville, and Rocklin, as listed in Table 4.0-2, along with major road improvements (e.g., Placer Parkway) and other off-site improvements, would result in development of over 50,000 acres of land and continue to contribute to ongoing loss and degradation of vernal pool type wetlands and other wetlands and waters in the region. Historic losses of vernal pool habitat in combination with projected losses from existing, proposed, planned, and approved projects constitute a cumulatively substantial reduction in vernal pool habitat in the region and in the state. Habitat losses of this magnitude have a substantial adverse effect on species that rely on this habitat type, including Federally-listed vernal pool crustaceans, and contribute to the decline of these species. Because of this habitat loss, 33 species of vernal pool-dependent plants and animals have been listed under the state or federal ESA or are candidates for listing (USFWS 2005). Loss of vernal pool wetlands has also had an adverse effect on general watershed functions in the region, such as flood attenuation and water quality improvement. This represents an existing significant cumulative impact.

Implementing the SAP would result in the conversion of approximately 2,865 acres of vernal pool complex containing an estimated 77 acres of state and federally protected vernal pool wetlands and other waters, and

15 acres of marsh complex to developed land uses. Implementing the PRSP would convert an additional 1,865 acres of low density vernal pool complex containing approximately 46 acres of state and federally protected vernal pool type wetlands to developed land uses. Based on mapping in support of the PCCP, western Placer County contains approximately 45,065 acres of vernal pool complex and projected development would result in direct conversion of 28 percent, or approximately 12,550 acres of this existing habitat. Implementing the SAP, including PRSP, would result in the loss of approximately 4,730 acres of vernal pool complex habitat, or 38 percent of the projected losses, which is a considerable contribution. In addition to direct loss of habitat, the project, when combined with surrounding planned projects, would result in the conversion of large, open habitat landscapes surrounded by other open space to more fragmented habitat surrounded by urban development with limited connectivity. Therefore, if the PCCP (with its landscape-level conservation strategy and avoidance, minimization and mitigation measures) were not adopted, and the project were subject to current regulatory permitting requirements, avoided on-site aquatic habitats could be confined to small geographic locations and would be more vulnerable to the effect of habitat fragmentation and other indirect impacts. Given the potential loss of habitat functions and values provided by the approximately 4,730 acres of vernal pool complex habitat containing approximately 115 acres of vernal pool type wetlands in the project area, when combined with anticipated growth in the region, the project could make a considerable contribution to a **significant cumulative impact**.

Therefore, the project would have a significant impact. Because no additional mitigation is available to reduce this impact to a less-than-significant level, this impact would be **significant and unavoidable**.

Cumulative Impact 4.4-12: Contribution to loss of federally listed vernal pool branchiopods and western spadefoot

As noted under Impacts 4.4-1, 4.4-2, and 4.4-3 vernal pools are one of California's most threatened habitats. Historic losses of vernal pool habitat in combination with projected losses from existing, proposed, planned, and approved projects constitute a cumulatively substantial reduction in vernal pool habitat in the region and the state. Habitat losses of this magnitude could have a substantial adverse effect on species that rely on this habitat type, including vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot on a statewide and regional scale. Vernal pool fairy shrimp has a more widespread distribution than vernal pool tadpole shrimp, with occurrences in southern California, the coast ranges of California, and southern Oregon, but it is mostly found in the Central Valley. It is uncommon throughout its range and rarely abundant where it is found (USFWS 2005). The greatest concentration of vernal pool fairy shrimp occurs in the Southeastern Sacramento Vernal Pool Region, which includes western Placer County (USFWS 2005). Vernal pool tadpole shrimp is restricted to the Central Valley and San Francisco Bay and has its largest concentration in the Southeastern Sacramento Vernal Pool Region, mostly in Sacramento County, but with a few occurrences in Placer County (USFWS 2005). Vernal pool tadpole shrimp is uncommon throughout its range. Western spadefoot has been extirpated throughout the lowlands of southern California and from many historical locations in the Central Valley, including serious declines in the Sacramento Valley (Jennings and Hayes 1994, USFWS 2005). Loss of vernal pool habitat has resulted in substantial declines in vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot statewide and in the region. This represents an existing significant cumulative impact.

Implementing the SAP would result in the conversion of approximately 2,865 acres of vernal pool complex containing an estimated 70 acres of vernal pool type wetlands to developed land uses. Implementing the PRSP would convert an additional 1,865 acres of vernal pool complex containing approximately 46 acres of vernal pool type wetlands to developed land uses. Vernal pool habitats in the SAP area are known to support vernal pool fairy shrimp and potentially support vernal pool tadpole shrimp and western spadefoot and are part of the Western Placer County Core Area identified by USFWS as being of high importance for the recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp. The *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (USFWS 2005) states that the loss of any habitat occupied by vernal pool branchiopods is counterproductive to their recovery, since the major threat to Federally listed vernal pool branchiopod species is habitat loss and fragmentation. In addition, maintaining genetic diversity of populations of these species is of concern. Take of vernal pool branchiopods can also eliminate a portion of the genetic pool available to that species, thereby eliminating the overall genetic diversity of the species.

This is of concern because over time, if the genetic diversity of a species is severely reduced, the chances of the species persisting through unpredictable future environmental conditions are reduced. Implementation of the SAP and PRSP, in combination with other existing and planned development projects in the area, would result in the loss of 12,207 acres, or 34 percent, of the 36,356 acres of vernal pool habitat existing in the Western Placer County Core Area (Exhibit 4.4-6). The SAP alone would result in conversion of 20 percent (7,424 acres) of existing vernal pool habitat in the Western Placer County Core Area. Therefore, the project would make a considerable contribution to a significant cumulative impact.

Creating compensatory wetlands cannot be guaranteed to fully replace the functions and values of habitat lost and temporal losses would occur unless all impacts could be mitigated through a mitigation strategy encompassing fully functioning, established, in-kind habitats. Mitigation is subject to the state and federal regulatory and wildlife agencies discretion in the current regulatory process. It is unknown if the PCCP would be adopted in time to provide a mechanism for take authorization and mitigation for future projects implemented under the SAP or PRSP, and it is unclear what the mitigation parameters, including compensation ratios for loss of habitat for vernal pool branchiopods, would be under the plan because a final draft of the plan has not been completed. Absent the PCCP or implementation of an equivalent conservation strategy meeting the state and federal regulatory requirements, an overall loss of habitat from the western Placer County core area could reduce the potential for recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp, and contribute to the ongoing decline of these species in the region. This loss and degradation of habitat could also contribute to a trend toward state or federal listing for western spadefoot even after mitigation.

Implementation of Mitigation Measures 4.4-1a, 4.4-1b, 4.4-3a, and 4.4-3b would reduce significant direct and indirect effects on Federally listed vernal pool branchiopods and western spadefoot, but not necessarily to a less-than-significant level because of the extent of occupied and potential habitat loss and degradation. Currently, mitigation bank and in lieu fee program credits may not be available in western Placer County to fully cover the loss of habitat resulting from project implementation and it is unknown if sufficient, unspoken for land would be available from willing sellers to fully mitigate the loss. Creation and preservation of wetlands within smaller and more fragmented areas surrounded by urban development cannot fully compensate for the whole suite of ecological services provided by larger expanses of interconnected wetland complexes surrounded by open space. If no feasible landscape level mitigation is available to reduce all potential indirect impacts to a less-than-significant level, this impact would remain **significant and unavoidable**.

Cumulative Impact 4.4-13: Contribution to loss of special-status plants

As noted under Impacts 4.4-1, 4.4-2, and 4.4-3, vernal pools are one of California's most threatened habitats. Historic losses of vernal pool habitat in combination with projected losses from existing, proposed, planned, and approved projects constitute a cumulatively substantial reduction in vernal pool habitat in the region and the state. Habitat losses of this magnitude have a substantial adverse effect on plant species that rely on this habitat type, including dwarf downingia and legenera. Vernal pools and vernal pool plant species have been threatened by widespread conversion to agricultural uses and urban development. Loss of vernal pool habitat has resulted in substantial declines in vernal pool-dependent special-status plant species statewide and in the region. This represents an existing significant cumulative impact.

The project area is known to support two vernal pool-dependent special-status plant species, dwarf downingia and legenera, and could support additional vernal dependent special-status plant species. Implementing the SAP would result the conversion of approximately 2,865 acres of vernal pool complex containing an estimated 70 acres of vernal pool type wetlands to developed land uses. Implementing the PRSP would convert an additional 1,865 acres of vernal pool complex containing approximately 46 acres of vernal pool type wetlands to developed land uses. Known occupied habitat in the northern portion of the SAP area is within existing and proposed preserves and therefore would ensure preservation of these species within the project area. Nonetheless, dwarf downingia has been found in a portion of the PRSP that would be developed, and other special-status plants could be present in other areas of the project area that would not be preserved.

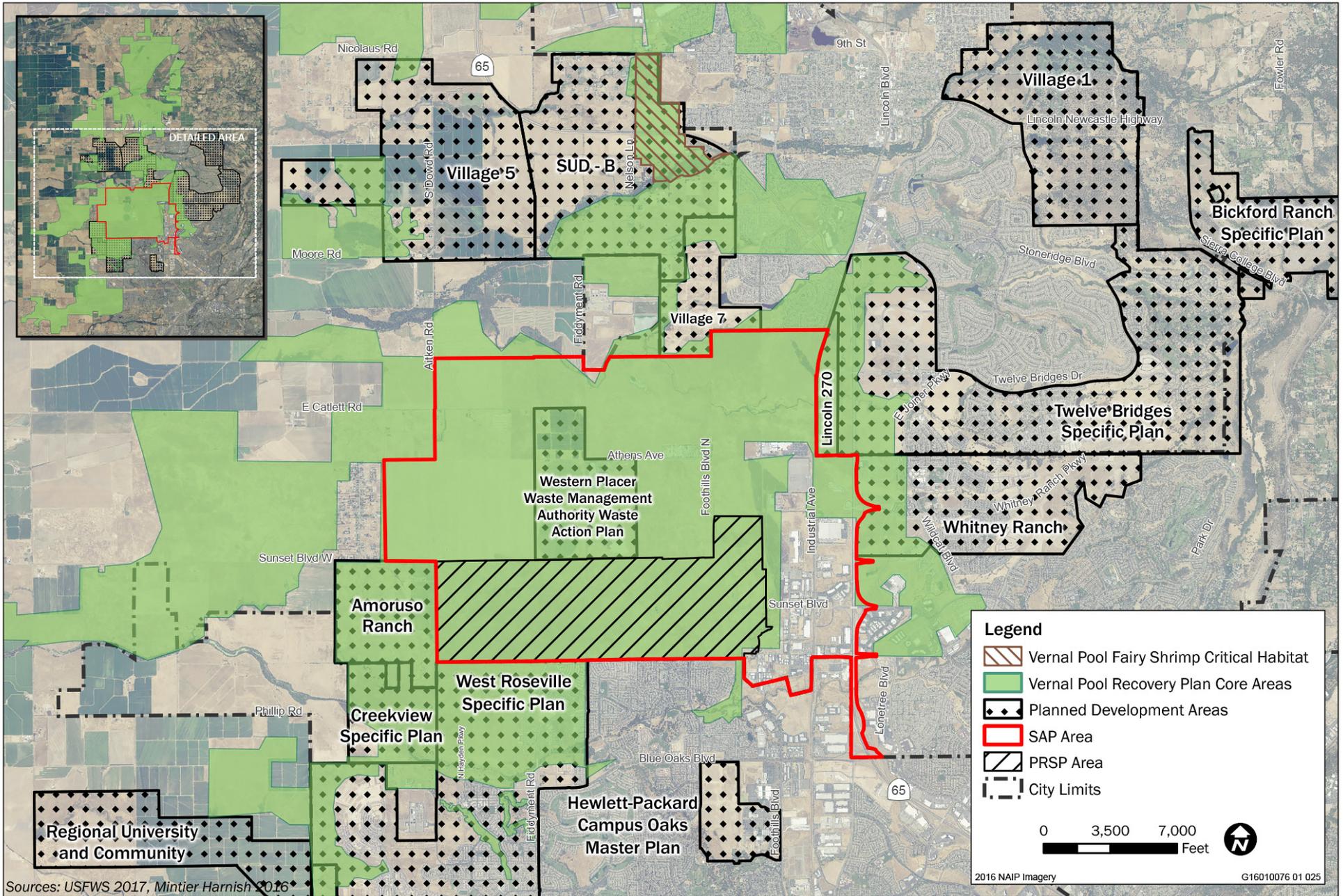


Exhibit 4.4-6

Vernal Pool Recovery Core Areas and Placer County Development Area



Implementation of SAP Policy NR 2-1 and Program NR-5 would reduce impacts on known and potentially-occurring special-status plant species because future project proponents would be required to identify and avoid special-status plant populations to the extent feasible, and provide compensation for the unavoidable loss of special-status plants through establishment of new populations, conservation easements, or other appropriate measures. Therefore, implementing the SAP would not considerably contribute to a significant cumulative impact. This impact would be **less than significant**.

Cumulative Impact 4.4-14: Contribution to loss of special-status reptile, bird, mammal, and fish species; and valley elderberry longhorn beetle

Past development and land conversion in western Placer County, ranging from conversion of native habitats to agricultural production more than a hundred years ago to recent expansion of urban development, has resulted in a substantial loss of native habitat to other uses, fragmentation of remaining natural habitats, and associated population declines for many native insect, reptile, bird, mammal, and fish species. This land conversion locally and statewide has benefited a few species, such as those adapted to agricultural uses, but the overall effect on native habitats and associated wildlife and fish have been adverse. Habitat losses of this magnitude have a substantial adverse effect on species that require native habitats and contribute to population declines. Several wildlife and fish species native to western Placer County have received legal or regulatory protections, in response to population declines that have occurred as a result of habitat loss and degradation. The widespread conversion, fragmentation, and degradation of habitats, and associated population declines, for these special-status wildlife and fish in western Placer County and the broader Central Valley is an existing significant cumulative impact.

The project area is bordered by agricultural lands to the north and east; however, over the past 10 to 20 years, intensive urban and suburban development have been initiated or completed south and west of the SOIA area. Many projects near the project area in the cities of Roseville, Rocklin, and Lincoln, as well as the unincorporated area of Placer County, have been implemented recently or are in various stages of planning and entitlement. Some projects have already resulted in adverse impacts on special-status wildlife species. Planned projects in the cities of Lincoln, Roseville, and Rocklin, as listed in Table 4.0-2, along with major road improvements (e.g., Placer Parkway) and other off-site improvements, would result in development of over 50,000 acres of land and continue to contribute to ongoing loss and fragmentation of wetland, riparian, grassland, woodland, aquatic, and other habitats for special-status wildlife and fish. Although many future projects proposed in the vicinity of the project site would be required to mitigate significant impacts on biological resources, in compliance with CEQA, ESA, CESA, and other state, local, and federal statutes, many types of habitats and species are provided no legal protection. Therefore, it can be expected that the net loss or degradation of native terrestrial and aquatic habitats for special-status wildlife and fish, agricultural lands, and open space areas that support important biological resources in Placer County will continue.

As discussed in Impact 4.4-5, development projects, land uses, and off-site improvements implemented under the project would result in removal or disturbance of habitat known to support burrowing owl, loggerhead shrike, white-tailed kite, and northern harrier. Other special-status species could be present in suitable habitat in the project area and could be disturbed or lost through habitat removal or modification, including western pond turtle, Swainson's hawk, tricolored blackbird, song sparrow, grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger. Future development and construction activities such as ground disturbance and vegetation removal, as well as overall conversion of habitat to urban and commercial uses, could result in the disturbance or loss of habitats, individuals, and reduced breeding productivity of these species. Therefore, because of the magnitude of habitat removed under the proposed SAP and PRSP, the project would contribute considerably to a significant cumulative impact.

Implementation of Mitigation Measures 4.4-5a, 4.4-5b, 4.4-5c, 4.4-5d, and 4.4-5e would avoid the loss of individuals, nests, occupied roosts, or other active breeding sites of special-status reptile, bird, and mammal species (western pond turtle, burrowing owl, loggerhead shrike, white-tailed kite, northern harrier, Swainson's hawk, tricolored blackbird, song sparrow, grasshopper sparrow, pallid bat, Townsend's big-eared bat, and American badger), and compensate for any unavoidable loss of occupied burrowing owl habitat and Swainson's hawk foraging habitat. However, no additional feasible mitigation to replace or fully compensate

for the large amount of habitat potentially suitable for special-status wildlife that would be removed under the proposed SAP and PRSP has been identified. Therefore, the project's considerable contribution to the significant cumulative impact on special-status reptile, bird, and mammal species and habitat would be **significant and unavoidable**.

No special-status fish species are known or expected to occur in the net SAP or PRSP areas. However, Orchard Creek and Pleasant Grove Creek are hydrologically connected to streams occupied by Central Valley steelhead (listed as threatened under ESA) and Chinook salmon, and designated as critical habitat for Central Valley steelhead, outside the project area. Therefore, construction and land uses proposed under SAP and PRSP that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the project area. However, future projects and land uses would be required to comply with CVRWQCB, Placer County, and proposed SAP regulations and permit conditions, and would implement LID measures and stormwater BMPs to protect downstream water quality. Therefore, the project's potential contribution to the existing significant cumulative impact on special-status fish species would not be considerable and, accordingly, would be **less than significant**. As described in Impact 4.4-4, implementing the SAP could result in removal of elderberry shrubs containing valley elderberry longhorn beetle larvae. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected. Direct removal of elderberry shrubs or disturbance of shrubs that affects their health or survival could result in take of valley elderberry longhorn beetle. However, because any construction-related vegetation removal within riparian habitats or other locations that may support elderberry shrubs would be limited, the potential disturbance or loss of valley elderberry beetle habitat is expected to be small. Additionally, implementation of Mitigation Measure 4.4-4 would require mapping and fencing existing elderberry shrubs to avoid disturbing valley elderberry longhorn beetle habitat, and compensating for any unavoidable loss of valley elderberry longhorn beetle habitat through USFWS-approved mitigation measures, or through implementation of the PCCP conservation strategy (if adopted) for valley elderberry longhorn beetle. Therefore, the project's potential contribution to the existing significant cumulative impact on valley elderberry longhorn beetle would not be considerable and, accordingly, would be **less than significant**.

Cumulative Impact 4.4-15: Contribution to the loss or degradation of riparian habitat

Because this habitat type is rare in California and has been dramatically reduced from its historical extent statewide and in the region, adverse effects on riparian habitat are considered cumulatively significant without SAP implementation. Contributing factors to these significant adverse effects statewide and within the Central Valley, include direct removal for agriculture or urban development, cattle grazing, substantial alteration of flow regimes and reduced flows; dewatering of stream reaches; isolation of floodplains from stream channels by channelization and levee construction; substantial reductions in the frequency, magnitude, and duration of floodplain inundation; habitat fragmentation by physical barriers; and poor water quality. Existing, proposed, planned, and approved projects are projected to result in the loss of 364 acres of riparian habitat as mapped for the PCCP. This constitutes a loss of approximately 8 percent of western Placer County's remaining 4,651 acres. Although buildout of the Placer County General Plan would preserve most of the remaining riparian habitat in the plan area, these habitats would ultimately be surrounded by urban development that would substantially reduce the quality of this habitat for most species and this would contribute to the decline of this habitat type in the region. This represents an existing significant cumulative impact.

The SAP has been designed to retain riparian habitat to the greatest extent feasible and losses of riparian habitat would be limited to the minimum areas necessary to construct road crossings and storm water retention facilities. Implementing Mitigation Measure 4.4-6 would reduce the SAP's potentially significant impacts on riparian habitat to a less-than-significant level because it would require project proponents to avoid these habitats if technically feasible and would require compensation for loss of riparian habitat resulting in no net loss of riparian habitat functions. Therefore, the project would not considerably contribute to a significant cumulative impact. This impact would be **less than significant**.

Cumulative Impact 4.4-16: Contribution to conflicts with local policies or ordinances protecting biological resources

Development within western Placer County is designed to be consistent with Placer County General Plan Policies and with the proposed PCCP. Project proponents are required to obtain permits for removal of protected trees and must comply with local policies for project approvals. Therefore, there is a less-than-significant existing cumulative impact with regards to conflicts with local policies. The SAP incorporates goals and policies that are consistent with and supplement the goals and policies of the Placer County General Plan. Implementing Mitigation Measure 4.4-7 would further reduce the project's potential impacts regarding local policies because it would require proponents to obtain a tree permit and compensate for any loss of protected trees. This impact would be **less than significant**.

Cumulative Impact 4.4-17: Contribution to interference with wildlife movement

As development occurs across the Central Valley of California, wildlife habitats become more and more fragmented. Existing and planned urban development within western Placer County, including the projects listed in Table 4.0-2, would create substantial barriers to wildlife movement across the region and result in smaller, more isolated habitat patches that may become unusable to certain species. This represents an existing significant cumulative impact.

Implementing the SAP would eliminate habitat connectivity across the SAP area between existing vernal pool grasslands to the south and west of the plan area and the Reserve/Mitigation Preserve area to the north, and eliminate wildlife movement opportunities through the SAP area for both common and special-status species. This would further fragment the remaining vernal pool complexes in western Placer County. This impact would be significant. The Placer County General Plan and proposed PCCP include provisions to protect stream systems and large, interconnected habitat patches. In addition, implementing Policy NR 4.2 and Mitigation Measure 4.4-8 would reduce project level impacts on wildlife movement to a less-than-significant level. Therefore, implementing the project would not contribute to interference with wildlife movement. This impact would be **less than significant**.

Cumulative Impact 4.4-18: Contribution to loss of wildlife nursery sites

Roosting habitat is typically a limiting factor to bat distribution. The large number of bat species that are considered sensitive by CDFW, or included on watch lists because of declining populations numbers, are evidence of significant adverse effects on bats that have resulted from loss of habitat, disturbance of roosts that results in mortality, mortality from wind turbines, as well as deliberate elimination of bats because of misunderstandings about how bats affect humans. Nearly 40 percent of all bat species in North America are included on federal or state endangered species lists or listed as sensitive (WBWG 2017). Thirty percent of the 27 bat species that occur in California are of conservation concern. Because many bat species roost in large maternity colonies to successfully rear their young, loss of a single roost can cause the loss of hundreds or even thousands of individuals at one time and have a substantial effect on a regional population or even threaten the viability of a species. The widespread loss of maternity roosts represents an existing cumulative impact.

The SAP area and off-site improvement areas have potential to support maternity bat roosts in existing trees or bridges. Therefore, removal of these structures, or construction disturbances could result in loss of a maternity colony. Implementing Mitigation Measure 4.4-5d would reduce potentially significant impacts related to maternity bat roosts to a less-than-significant level because it would require preconstruction surveys for bats and avoidance of active maternity roosts such that no maternity bat roosts would be lost due to project construction. Therefore, implementing the SAP would not contribute to the loss of maternity bat roosts (nursery sites). This impact would be **less than significant**.

Cumulative Impact 4.4-19: Contribution to conflicts with an adopted conservation plan

The PCCP is a proposed conservation plan that is currently under development and is not an adopted plan. Participants in the proposed plan, Placer County, South Placer Regional Transportation Authority, Placer County Water Agency, and City of Lincoln, are implementing and planning projects under their purview to be

consistent with the goals and objectives of the proposed plan. Because the plan is not adopted and because proposed permittees are acting in compliance with the terms of the proposed plan, there is a less-than-significant existing cumulative impact.

The SAP, including the PRSP, has been designed for consistency with the PCCP and SAP policies call for participation in the PCCP for future project permitting and mitigation once the PCCP has been adopted, and incorporates policies that are consistent with the conditions on covered activities that are proposed in the PCCP. Therefore, the project's impacts regarding conflicts with the proposed PCCP are **less than significant**.