CHAPTER FIVE: NATURAL RESOURCES

INTRODUCTION

This chapter reviews the present (2015) context for natural resources in the Sunset Industrial Area (SIA). The following chapter is comprehensive and considers all categories of natural resources, including water, soils, plants and animal species, oil and gas, open space, and scenery. An overview of the natural resources in the SIA is important to understand the resources that pose constraints to future development, and those that present opportunities for future development.

This chapter is organized into the following sections:

- Major Findings (Section 5.1)
- Water Resources (Section 5.2)
- Biological Resources (Section 5.3)
- Soils and Mineral Resources (Section 5.4)
- Paleontological, Archaeological, and Historical Resources (Section 5.5)
- Oil and Gas Resources (Section 5.6)
- Open Space and Agricultural Resources (Section 5.7)
- Scenic Resources and Routes (Section 5.8)
- Key Terms (Section 5.9)

SECTION 5.1 MAJOR FINDINGS

- Creeks in the planning area are tributaries to the Sacramento River and support the beneficial uses of the Sacramento River, which include municipal and domestic supply; agricultural irrigation supply; water contact recreation, including canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; warm and cold migration of aquatic organisms; warm and cold spawning, reproduction, and/or early development; wildlife habitat; and navigation.
- The most recently approved (2010) Clean Water Act Section 303(d) list (regulates impaired waters and Total Maximum Daily Loads) for California does not identify any impaired waters in the SIA; however, streams in the planning area are tributaries to the Natomas East Main Drainage Canal, which is listed for the pesticide diazinon and polychlorinated biphenyls (PCBs); and the Sacramento River, which is listed for mercury and unknown toxicity.
- Existing industrial uses in the planning area may have contaminated surface and groundwater in isolated locations.
- Placer County has adopted and implemented ordinances, plans, and policies, in compliance with Federal and State law, to address pollutants in urban water runoff into creeks, tributaries, and rivers.
- Valuable plant and wildlife habitat exists throughout the undeveloped portions of the SIA. Annual grasslands within existing conservation areas and other undeveloped portions in the SIA support vernal pool complexes, other seasonal wetlands, and special-status plant and wildlife species associated with those habitats.
- Development in the SIA would require compliance with the Placer County Conservation Plan (PCCP) and Placer County Aquatic Resources Program (CARP) once these programs are adopted.
- Vernal pool complexes in the SIA may support federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Additionally, nearly all of the SIA is located within a U.S. Fish and Wildlife Service (USFWS)-designated vernal pool species recovery core area.
- Grasslands in the SIA support foraging habitat for several raptor species including Swainson's hawk, white-tailed kite, and burrowing owl. These areas also potentially support nesting habitat for burrowing owl.
- Wetlands subject to U.S. Army Corps of Engineers (USACE) jurisdiction within the SIA include vernal pools, seasonal wetlands, streams, and ponds in the undeveloped portions of the planning area.
- Prior to construction on any undeveloped land, a site-specific assessment to determine the likelihood of specific parcels to support any special-status plant and wildlife species should be completed. Based on the habitat assessment, protocol-level

surveys for any special-status species with potential to occur and be affected may be required. Once the PCCP is adopted surveys should be completed per the condition on covered activities required by the permit.

- Of the soils mapped, the near surface soils that comprise about 90 percent the SIA belong to the Fiddyment-Kaseberg loams (map unit 147), Cometa-Fiddyment complex (map unit 141), and the Alamo-Fiddyment complex (map unit 104). (Figure 5-7).
- The SIA includes 17 known prehistoric and historic archaeological sites and four isolated prehistoric artifacts (Tables 5-6 and 5-7).
- The sacred lands search conducted by the NAHC did not identify any significant cultural resources or areas of cultural significance to the Native American community within the SIA.
- The SIA generally has a low sensitivity for the presence of archaeological and historical resources; however, areas within the SIA adjacent to watercourses should be considered sensitive for the presence of buried deposits of prehistoric archaeological resources.
- The overall sensitivity SIA for the presence of paleontological resources is low. However, the small area of the SIA that includes the Riverbank Formation should be considered sensitive for the presence of paleontological resources.
- Most soils in the planning area have low erosion potential and have slow to very slow rates of infiltration.
- There are no known mineral resources in the SIA.
- There are no known oil resources or active gas resources within the SIA.
- Methane gas generated by decomposing waste is collected from the Western Regional Sanitary Landfill (WRSL).
- Within the SIA, approximately 1,000 acres of land are in permanent open space.
- As of 2012 there were 5,687 acres of Important Farmland in the SIA
- From 1984 to 2012, 1,256 acres of land have been converted from important farmland to developed land uses.
- The SIA contains three existing reserves. The PCCP includes a large portion of the planning area as a possible reserve acquisition area.
- Views in the SIA include both urbanized and rural, agriculture and open space, and broad expanses of grassland.
- The visual character and views within the SIA are moderate in quality, due to the disruption of the rural character by major manmade features including Thunder Valley Casino and Resort, WRSL, power lines, business park and other urban development.

- Views beyond the SIA boundary include residential and other urban uses in the cities of Lincoln, Rocklin, and Roseville, as well as the foothills in the distance.
- There are no designated or eligible scenic highways within or near the SIA.
- There are no designated scenic resources within the area.

SECTION 5.2 WATER RESOURCES

Existing Conditions

This section (5.2) and the following section (5.3 Biological Resources) are based substantially on information contained in the Administrative Draft Placer County Conservation Plan (PCCP). The PCCP includes two separate but complementary plans or programs: the Western Placer County Habitat Conservation Plan and Natural Community Plan (HCP/NCCP) and the Western Placer County Aquatic Resources Program (CARP). Although the PCCP has not been finalized or adopted at the time of preparing this Existing Conditions Report, it is considered a compilation of the best available and current information on many of the natural resources in western Placer County. The PCCP and its relationship to the SIA (Figure 5-1) are further described below under "Regulatory Setting."

Surface Water Hydrology

The planning area is within the Sacramento Hydrologic Region, in the Sacramento-San Joaquin watershed and the Upper Coon Creek-Auburn Ravine Subshed. For planning purposes, the County further divides this subshed into four watersheds: Coon Creek, Markham Ravine, Auburn Ravine, and Pleasant Grove Creek (Figure 5-2). The SIA is located within the Auburn Ravine and Pleasant Grove Creek watersheds, which are described below.

Auburn Ravine Watershed

Auburn Ravine originates on the north side of the city of Auburn and flows west to its confluence with East Side Canal in Sutter County and thence into the Cross Canal and the Sacramento River. The elevation of the basin ranges from 30 to 1,600 feet above sea level (asl). In its middle reaches downstream to the city of Lincoln, the stream's gradient decreases substantially, and the substrate is characterized by sand, gravel, and cobbles. Downstream from the city of Lincoln, agricultural land borders the stream, where it flows near the northwest corner (but not within) the SIA. In some parts of this portion of the watershed, the ravine is contained within levees and riparian vegetation may be absent. Stream channel substrate is mostly clay and fine sediments, with occasional pieces of large woody debris. Grazing and channel maintenance activities restrict the development of riparian vegetation. The lower two and a half miles of Auburn Ravine was rerouted and leveed to flow into the East Side Canal.

Winter flow in Auburn Ravine is dominated by runoff from rainfall events and effluent from the City of Auburn's wastewater treatment plan (the City of Auburn's wastewater treatment plant contributes discharge year-round). Winter flows range from less than three cubic feet per second (cfs) to an estimated 100-year flow event exceeding 14,000 cfs.

Summer flows are high relative to natural conditions due to the effects of water imports. Auburn Ravine receives water imports from the Bear, Yuba, and American rivers by Nevada

Irrigation District (NID), Placer County Water Agency (PCWA) and Pacific Gas & Electric (PG&E) that create above-normal spring and summer flow conditions. In September or October, flow is substantially decreased as irrigation demands diminish or cease. Flow during the fall may often be less than three cfs. Auburn Ravine's artificially high flow in the summer months provides more, and substantially different, aquatic habitat than would exist under natural flow conditions. Reduced flow in September and October substantially reduces the area of aquatic habitat relative to habitat available in the summer.

Pleasant Grove Creek Watershed

The Pleasant Grove watershed and its constituent Curry Creek are located in western Placer County, including the western portions of the cities of Roseville and Rocklin and eastern Sutter County. Both of these creeks empty into the Pleasant Grove Creek Canal which drains to the Sacramento River via the Cross Canal.

The watershed is composed of five major drainages: Curry Creek, Lower Pleasant Grove Creek, Kaseberg Creek, South Branch Pleasant Grove Creek, and Upper Pleasant Grove Creek. In general, slopes are very flat, less than 5 percent, particularly in the lower watershed. These creeks were historically dry or very nearly dry in the summer months, but are now mostly perennial due to urban runoff and agricultural irrigation return flows. The Pleasant Grove Wastewater Treatment Plant operated by the City of Roseville also augments natural stream flow, on average, by 11 cfs per day.

The dominant land cover types within the watershed are annual grassland, urban and suburban, and agriculture. Urban and suburban land uses within the watershed are currently confined to the unincorporated Placer County, the Cities of Roseville and Rocklin, and the Town of Loomis, but significant growth in urban and suburban land uses are expected in the next ten to twenty years including development in the unincorporated SIA. Current development in the watershed is resulting in conversion of agricultural and grasslands to suburban land uses, predominantly low to medium density residential communities with associated neighborhood or community commercial.

Surface Water Bodies

Surface waters in the planning area include a number of seasonal and vernal wetlands, intermittent streams, a few stock ponds and irrigation canals, and a portion of Pleasant Grove Creek (Figure 5-3). Intermittent streams in the SIA flow north toward Orchard Creek and Auburn Ravine and south toward Pleasant Grove Creek. Auburn Ravine and Pleasant Grove Creek discharge to the East Side Canal, the Cross Canal (nearly eight miles from the SIA), and ultimately the Sacramento River (nearly 13 miles from the SIA).

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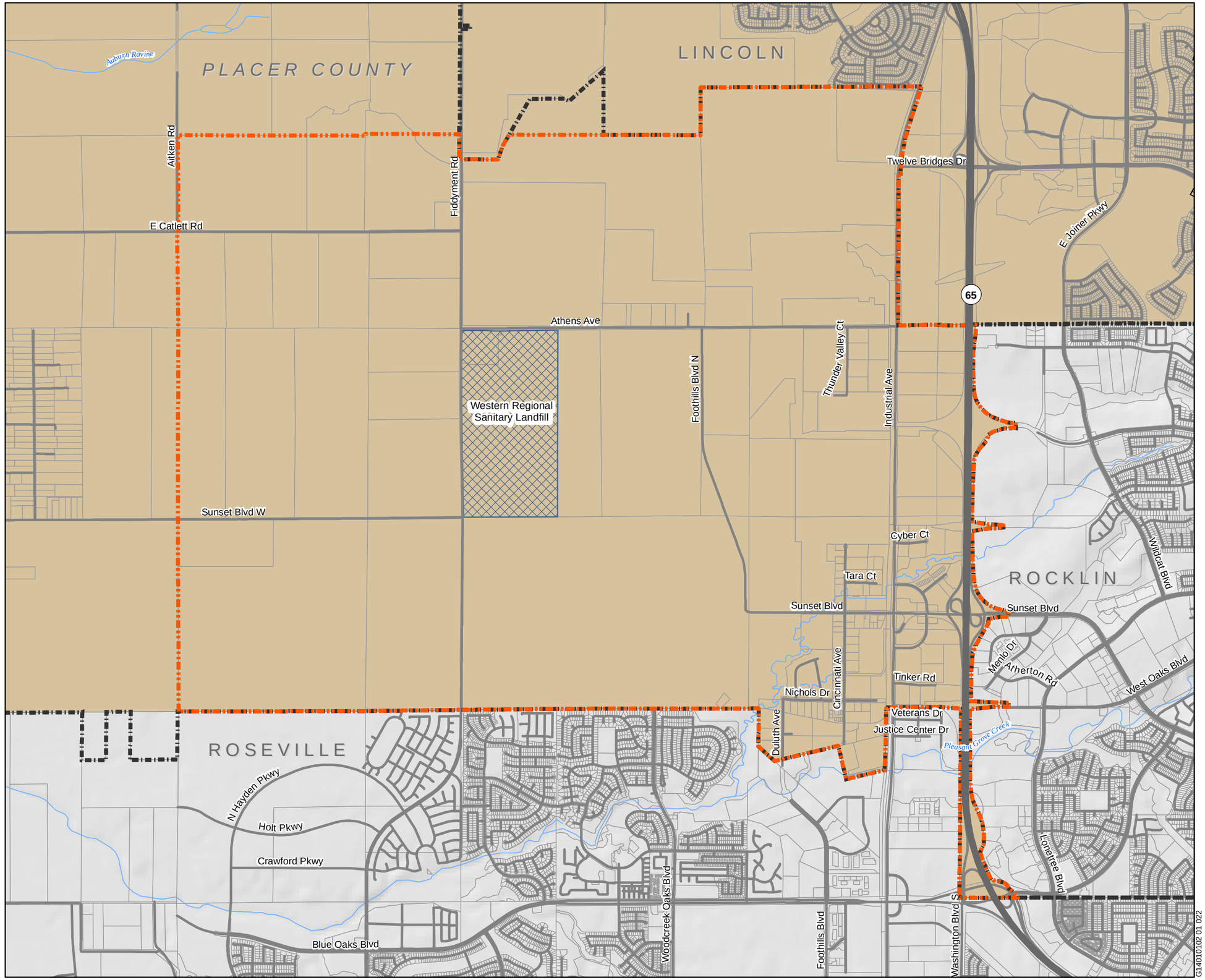
Sunset Area Plan | Figure 5-1

PCCP Boundary



PCCP Boundary

Planning Area

City Limits

Western Regional Sanitary Landfill

160 acres

40

10

N

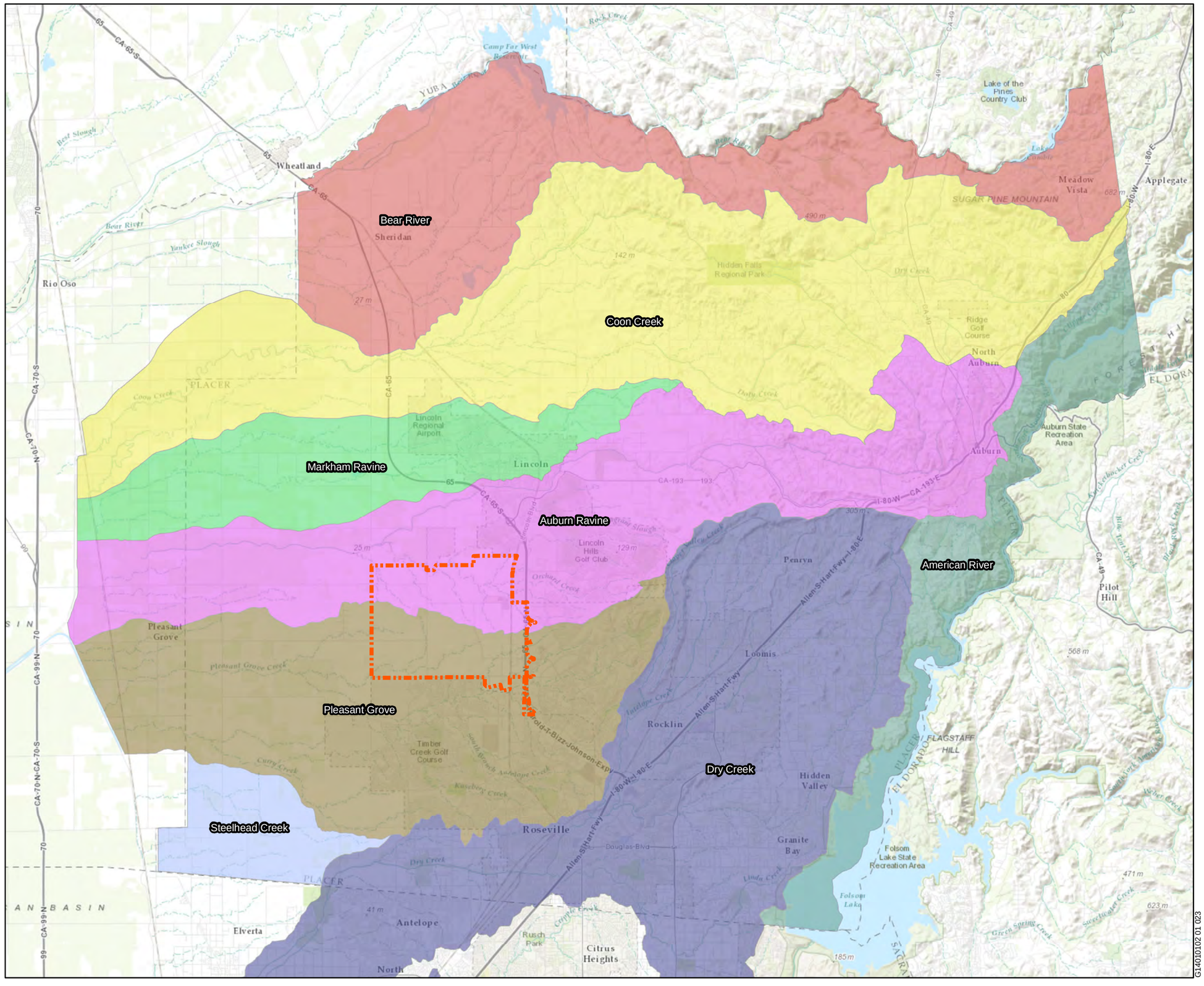
0 0.25 0.5 1 1.5 Miles

Date: 10-05-2015

Source: Placer County, 2015

Sunset Area Plan | Figure 5-2

Watersheds



Planning Area

Watershed

- American River
- Auburn Ravine
- Bear River
- Coon Creek
- Dry Creek
- Markham Ravine
- Pleasant Grove
- Steelhead Creek

160 acres

40

10

N

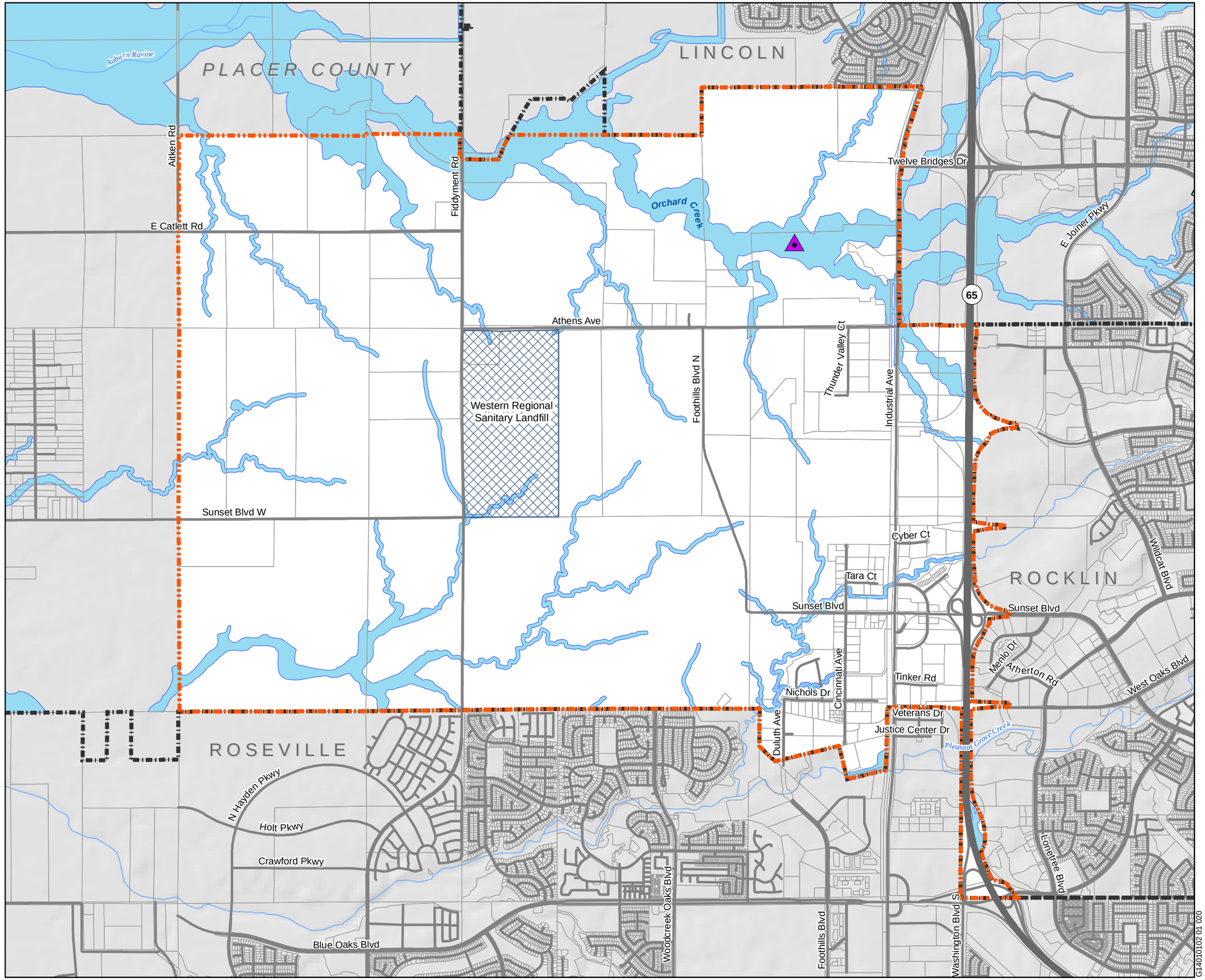
0 1.25 2.5 5 7.5 Miles

Date: 08-24-2015

Source: Placer County, 2015

G14010102 01 023

Sunset Area Plan | Figure 5-3
Stream System



- Thunder Valley Casino WWTP Discharge into Orchard Creek
- Planning Area
- City Limits
- Western Regional Sanitary Landfill
- Stream System

160 acres
40
10

N

0 0.25 0.5 1 1.5 Miles

Date: 10-05-2015

Source: Placer County, 2015

G14010102 01 020

Drainage improvements in the planning area are minor, and runoff from roadways is directed to roadside drainage ditches. Portions of the southeastern planning area have been developed and include a variety of storm drainage infrastructure, ranging from an incased drainage system to roadside ditches, which discharge to Pleasant Grove Creek.

Pleasant Grove Creek was historically an intermittent stream; however, increased urbanization has contributed to year-round runoff resulting in perennial flow. The creek does not frequently interface with groundwater and its character is that of a warm-water stream with a silty substrate containing few small cobbles and gravels. Orchard Creek is also characterized by perennial flow due to urban runoff and discharges from the Thunder Valley Wastewater Treatment Plant. Water has been imported into Auburn Ravine for over 150 years, and it is a perennial feature. Auburn Ravine watershed receives water from two primary sources: the Yuba/Bear River watershed and, to a lesser degree, the American River watershed.

Natural and artificial wetlands are present throughout the planning area, including stock ponds, irrigated pastures, and seasonal or vernal wetlands. Wetlands are the transitional area between terrestrial and aquatic system and specialized fauna provide breeding, rearing and feeding habitat for many fish and wildlife, as well as natural flood protection and pollution control. The biological resource functions of these wetlands are identified in more detail in the biological resource section.

Surface Water Quality

Surface water is regulated to maintain levels of quality appropriate for a wide range of municipal, agricultural, and other uses. In order to discuss surface water quality within the SIA, it is necessary to reference many of the regulations and agencies involved in maintaining water quality. A detailed description of these regulations is provided in the regulatory context below.

Beneficial Uses

In managing the quality of the State's water resources, the Central Valley Regional Water Quality Control Board (CVRWQCB) considers the beneficial uses of water, which in turn define quality criteria necessary to sustain that use. California State law defines beneficial uses of California's waters that may be protected against quality degradation to include (and not be limited to) "domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (California Water Code Section 13050(f)). Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning.

While Pleasant Grove Creek and Orchard Creek within the SIA do not have specified beneficial uses, the beneficial uses of any specifically identified water body generally apply to its tributary streams to the extent that they could also support similar beneficial uses. The Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins identifies the

following beneficial uses of the Sacramento River: municipal and domestic supply; agricultural irrigation supply; water contact recreation, including canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; warm and cold migration of aquatic organisms; warm and cold spawning, reproduction, and/or early development; wildlife habitat; and navigation.

Impaired Water Bodies

Under Section 303(d) of the Clean Water Act (CWA), states are required to maintain lists of water bodies that, despite minimum treatment levels, will not attain water quality standards. There are no 303d-listed (i.e., impaired) water bodies within the SIA; however, streams in the SIA are tributaries to the Natomas East Main Drainage Canal, which is listed for the pesticide diazinon and polychlorinated biphenyls (PCBs); and the Sacramento River, which is listed for mercury and unknown toxicity. Ambient water quality in the SIA is likely influenced by existing uses, including agriculture, runoff from development, and industrial uses.

In 2006 Placer County completed an Ecosystem Restoration Plan (ERP) for the Pleasant Grove/Curry Creek watershed. The ERP addresses several important aspects of ecosystem function: water quality, sediment load, floodplain management, and habitat restoration. According to the ERP, water quality within the watershed is generally good. Five samples were collected during the study: spring, summer, and first-flush in 2004 and winter and spring in 2005. Of the constituents sampled, only bacteria and specific conductance were consistently out of compliance with water quality standards (Placer County 2006).

Wastewater Discharge

Thunder Valley Wastewater Treatment Plant discharges treated municipal wastewater to Orchard Creek under the terms of CVRWQCB Order No. R5-2010-0005, National Pollution Discharge Elimination System (NPDES) No. CA0084697. Under the terms of this permit, treated effluent is monitored prior to discharge. CVRWQCB adopted a revised Waste Discharge Requirements Order (R5-2015-0077) for the wastewater treatment plant on June 5, 2015, which became effective on August 1, 2015. The revised discharge requirements set effluent limitations as shown in Table 5-1.

TABLE 5-1
CVRWQCB EFFLUENT LIMITATIONS
Thunder Valley Casino Wastewater Treatment Plant

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Biochemical Oxygen Demand (5-day @ 20 degrees Celsius)	mg/L	10	15	20	--	--
	lbs/day[1]	58	88	117	--	--
	lbs/day[2]	73	109	146	--	--
pH	standard units	--	--	--	6.5	8.5
Total Suspended Solids	mg/L	10	15	20	--	--
	lbs/day[1]	58	88	117	--	--
	lbs/day[2]	73	109	146	--	--
Non-Conventional Pollutants						
Ammonia Nitrogen, Total (as N)	mg/L	1.1	1.8	--	--	--
	lbs/day[1]	6.4	11	--	--	--
	lbs/day[2]	8.0	13	--	--	--
Nitrate Plus Nitrite (as N)	mg/L	10	20	--	--	--

Notes:
[1]Based on a maximum daily effluent flow of 0.70 MGD, effective immediately and until Executive Officer's written approval of flow increase (Special Provision VI.C.6.b).
[2]Based on a maximum daily effluent flow of 0.875 MGD, effective upon Executive Officer's written approval of flow increase (Special Provision VI.C.6.b).
Source: CVRWQCB 2015

The revised waste discharge requirements also include monitoring and reporting program (MRP) requirements and includes receiving water limitations for Orchard Creek, such that discharge would not exceed set limitations for various water quality constituents including bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, suspended sediments, settleable substances, suspended material, taste and odor, temperature, toxicity, and turbidity.

Groundwater Hydrology

The SIA is in the Sacramento Valley Groundwater Basin, North American Subbasin (Groundwater Basin Number: 5-21.64). The North American Subbasin encompasses portions of Sutter, Placer, and Sacramento counties. Groundwater is encountered in this basin between 70 and 100 feet below native ground surface. Groundwater in the basin flows primarily towards the southwest.

Groundwater elevations generally range from 70 feet above mean sea level (msl) at the northeast corner to elevation 10 feet above msl at the southwest corner. Borings performed for the Thunder Valley Casino encountered free groundwater at depths greater than 45 feet below ground surface (or less than 80 feet above msl). Groundwater elevations may seasonally vary 10 to 20 feet. Typically, high groundwater levels are recorded in spring and lower groundwater levels are recorded in the fall (FUGRO 2015). The PCWA maintains one well that previously served the SIA; the well use was discontinued due to concerns related to industrial contamination.

According to the PCWA's 2010 Urban Water Management Plan groundwater levels in western Placer County have been relatively stable since the early 1980s, after three to four decades of decline. Because safe yield may be qualitatively indicated by stable groundwater levels over a period of years, the groundwater level stability in south western Placer County over the past 20-30 years is an indication that groundwater use and natural recharge have been in balance. Groundwater recharge in the planning area occurs primarily from percolation of precipitation and migration of groundwater from outside the planning area, with minimal recharge from ephemeral surface waters and wetlands.

Historic pumping by the PCWA in western Placer County was limited to pumping for Bianchi Estates (Zone 2) and for the SIA. Pumping for Bianchi estates ceased in 2004, and since that time, the PCWA has served Bianchi Estates with surface water under the PCWA's PG&E and Middle Fork American River water supplies. The PCWA maintains the SIA groundwater well, though it has not been used for years because of customer concerns regarding water quality related to industrial uses (PCWA 2010). According to the 2007 Western Placer County Groundwater Management Plan (WPCGMP), the PCWA provides groundwater as a backup supply to the Sunset Industrial Park (MWH 2007).

Groundwater Quality

According to the WPCGMP, the groundwater quality in the upper aquifer system (closer to ground surface) is regarded as superior to that of the lower aquifer system. The upper aquifer is preferred over the lower aquifer principally because the lower aquifer system (specifically the pre-Mehrten formation) contains higher concentrations of iron and manganese, and in some cases arsenic. Water from the upper aquifer generally does not require treatment (other than disinfection). The lower aquifer system also has higher concentrations of total dissolved solids (TDS, a measure of salinity) than the upper aquifer, although it typically meets standards as a potable water supply. In general, at depths of approximately 1,200 feet or greater (actual depth varies throughout the basin), the TDS concentration can exceed 2,000 milligrams per liter (mg/L). At such concentrations, the groundwater is considered non-potable without treatment (MWH 2007).

The 291-acre WRSL Facility is located in the planning area at 3195 Athens Road, Lincoln, and serves Placer County, including the cities of Lincoln, Roseville and Rocklin. The landfill discharges to land and surface waters under Waste Discharge Requirements in Order No. R5-

2007-0047 as issued by the CVRWQCB. The landfill monitors groundwater at 24 well locations as a component of its operations and has detected elevated volatile organic compounds (VOCs), barium, boron, and Di(2-Ethylhexyl)Phthalate (SWRCB GeotrackerGAMA 2015). All but one of the 24 wells are located within the landfill site; one well is located just to the east of the landfill site.

VOCs have been detected in groundwater samples from several of the landfill monitoring wells. Historically, VOCs were first observed groundwater samples from late 1995. The source of the VOCs appears to be landfill gas (LFG). A Corrective Action Program (CAP) and Addendum were submitted to the CVRWQCB on May 20, 1997, and September 23, 1997, respectively. The RWQCB approved the CAP and Addendum in late 1997, which required the installation of final cover and a LFG extraction system on closed modules. To monitor the effectiveness of these CAP measures, specific corrective action wells are sampled on a quarterly basis. Data from the CAP wells are evaluated for inorganic and organic constituent trends (WPWMA 2015).

According to the First Quarter 2015 Monitoring Report, VOCs were detected only in the CAP wells and levels of all VOCs were within their historical ranges with the exception of tetrachloroethene (also known as perchloroethylene, or PCE), which was detected at the reporting limit. PCE has been detected in other CAP wells as early as 1995. PCE concentrations have decreased in concentration over the last 20 years from approximately 40 micrograms per liter (µg/L) to 4 µg/L. In addition, landfill gas probe monitoring detected the possibility of landfill gas influence on the VOC levels. The WPWMA is making modifications to the landfill gas system to apply a more consistent vacuum in this area to control landfill gas movement (WPWMA 2015).

Other existing and former industrial sites in the southeastern planning area do not have a record of discharges to groundwater.

Regulatory Setting

Numerous local, State and Federal acts, rules, plans, policies, and programs define the framework for regulating water quality resources in California. The following discussion focuses on requirements that are applicable to the planning area.

Federal

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants to surface waters within the United States. The law authorizes the U.S. Environmental Protection Agency (EPA) to set point-source effluent limits for industry and publicly owned treatment works and requires states (or EPA in the event of default by states) to set water quality standards for contaminants in surface waters.

National Pollutant Discharge Elimination System Permit Program

The CWA requires wastewater dischargers to obtain a permit that establishes effluent limitations and specifies monitoring and reporting requirements. The NPDES program is administered in California by the SWRCB and requires wastewater dischargers to regulate non-domestic wastes discharged to sewers through activities such as pretreatment programs and sewer use ordinances. The regulations also provide that discharges to waters of the United States from construction projects that encompass one acre or more of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES permit. Development in the SIA that discharges stormwater would require a NPDES permit.

Placer County is a designated municipal permitee under the EPA's NPDES program. The NPDES regulations require permitted areas to implement specific activities and actions to eliminate or control stormwater pollution. Placer County is permitted under the Phase 2 NPDES program in the western county area and in the Truckee River Basin (Placer County 2015). The eastern portion of the SIA is located within the West Slope Phase 2 Permit Area.

Industrial Waste Pretreatment Requirements

Under the CWA, the EPA was required to establish pretreatment standards to prevent the discharge of any pollutant into a publicly owned treatment works that would interfere with, pass through untreated, or otherwise be incompatible with such treatment works. Each publicly owned treatment works discharging over five million gallons per day (mgd) is required to develop and enforce specific local limits for discharges to the publicly owned treatment works.

Section 303(d) Impaired Waters List

Section 303(d) of the CWA requires states to develop lists of water bodies (or sections of water bodies) that will not attain water quality standards after implementation of minimum required levels of treatment by point-source dischargers (i.e., municipalities and industries). As mentioned above, the most recently approved (2010) CWA Section 303(d) list for California does not identify any impaired waters in the SIA; however, streams in the planning area are tributaries to the Natomas East Main Drainage Canal, which is listed for the pesticide diazinon and polychlorinated biphenyls (PCBs); and the Sacramento River which is listed for mercury and unknown toxicity.

National Toxics Rule and California Toxics Rule

In 1992, pursuant to the CWA, the EPA promulgated the National Toxics Rule (NTR) criteria to establish numeric criteria for priority toxic pollutants for California. In May 2000, the EPA issued the California Toxics Rule (CTR), which promulgated numeric criteria for priority pollutants. The CTR (as currently amended) identifies water quality criteria for 126 priority pollutants.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was passed in 1974 to regulate the nation's drinking water supply. See Section 5.2 "Water Supply and Distribution" for a detailed discussion.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. The Act requires the nine RWQCBs to adopt water quality control plans and establish water quality objectives, and authorizes the SWRCB and RWQCBs to issue and enforce permits containing requirements for the discharge of waste to surface waters and land.

Water Quality Control Plan for the Sacramento River and San Joaquin River Basins

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) prepared by the Central Valley Water Board defines the beneficial uses, water quality objectives, implementation programs, and surveillance and monitoring programs for waters of the Sacramento River and San Joaquin River basins. The Basin Plan contains specific numeric water quality objectives that are applicable to certain water bodies or portions of water bodies.

State Water Resources Control Board General Construction Stormwater Permit

The Construction General Permit applies to projects that involve soil disturbance of more than one acre and includes specific requirements based on the "risk level" of the site. The Construction General Permit requires implementation of BMPs that control pollutant discharges using best available technology economically achievable for toxic contaminants and best conventional technology for conventional contaminants, and any other necessary BMPs to meet water quality standards. The Construction General Permit also specifies runoff reduction requirements for all sites not covered by a municipal NPDES permit, to minimize post-construction stormwater runoff impacts.

The West Placer Post Construction Stormwater Design Manual is currently being prepared and will provide standards that both conform to the mandates of the 2013 NPDES Municipal Permit and achieve the objectives of the PCCP. The Design Manual is discussed further below under "Local Plans, Policies, Regulations, and Laws."

State Water Resources Control Board Industrial Stormwater Permit

The SWRCB's NPDES stormwater permit for general industrial facilities (General Industrial Permit, Order No. 97-03-DWQ) was adopted in 1997 and applies to specific industries such,

including municipal wastewater treatment plants. The General Industrial Permit requires the preparation of a SWPPP and implementation of BMPs for the control of stormwater and non-stormwater related discharges. The Industrial General Permit generally requires facility operators to eliminate unauthorized non-stormwater discharges and perform inspections/monitoring of stormwater discharges and authorized non-stormwater discharges.

Local

Placer County Water Agency, Urban Water Management Plan

The Placer County Water Agency (PCWA) provides wholesale water supply and retail water distribution services to the SIA. The PCWA provides untreated and treated water directly and indirectly to wholesale and retail customers throughout Placer County. The PCWA is also responsible for resource planning and management and production of hydroelectric energy. The SIA is located within PCWA lower Zone 1 and Zone 5 service areas and within the Sunset Industrial Pressure Zone.

Consistent with the Urban Water Management Planning Act and the Water Conservation Bill of 2009, PCWA is required to report, describe, and evaluate water deliveries and uses, water supply sources, efficient water uses, demand management measures, and report a variety of urban water use data (PCWA 2010). The PCWA's current 2010 Urban Water Management Plan was adopted in 2011.

Western Placer County Groundwater Management Plan

In 2007 the City of Roseville, the City of Lincoln, PCWA, and the California American Water Company (CAW) adopted the Western Placer County Groundwater Management Plan (WPCGMP). The PCWA's service area, including the SIA, is included in the WPCGMP planning area. The WPCGMP is designed to assist users in an effort to maintain a safe, sustainable, and high-quality groundwater resource within a zone of the North American Sub-basin. The overarching goal of the WPCGMP is the maintenance of groundwater resources to meet backup, emergency, and peak demands without adversely affecting other groundwater uses within the WPCGMP area. To meet this goal, the WPCGMP identifies the following five basin management objectives (BMOs):

- Management of the groundwater basin shall not have a significant adverse effect on groundwater quality.
- Manage groundwater elevations to ensure an adequate groundwater supply for backup, emergency, and peak demands without adversely impacting adjacent areas.
- Participate in State and Federal land surface subsidence monitoring programs.
- Protect against adverse impacts to surface water flows in creeks and rivers due to groundwater pumping.

- Ensure groundwater recharge projects comply with State and Federal regulations and protect beneficial uses of groundwater (PCWA 2010).

In November 2013 the Western Placer County Sustainable Yield report was prepared for the WPCGMP. The study was designed to understand the usage, storage capacity and sustainable yield of the aquifers within the Western Placer County portion of the Subbasin and to develop management strategies to protect and enhance this valuable water resource. The sustainable yield is defined as the amount of groundwater that can safely be extracted in any year or as a long-term average, for Western Placer County without creating adverse effects. The Sustainable Yield report indicates that in 2011, 28,455 acre-feet per year (AFY) of agricultural groundwater was extracted within the PCWA service area. This is slightly less than the 28,940 AFY extracted in both 1998 and 1999 and substantially less than the 34,066 AFY extracted in 2001 and 2002. The report indicates a fairly steady increase in rural urban groundwater extraction from 557 AFY in 1998 to 899 AFY in 2012.

Placer County Post Construction Stormwater Design Manual

The West Placer Post Construction Stormwater Design Manual is currently being prepared as a joint effort between Placer County and the Cities of Roseville, Lincoln, Loomis, and Auburn. The goal of the Design Manual is to provide standards that both conform to the mandates of the 2013 NPDES Municipal Permit (MS4-General Permit No. CAS0000004) and achieve the objectives of the PCCP.

As discussed above, the County is also developing a CARP that will streamline permitting processes within a stream system. Low impact development is critical for PCCP/CARP implementation to ensure Clean Water Act permit requirements are satisfied.

The Design Manual will provide hydromodification management to satisfy requirements for stormwater discharges as part of the Small Municipal Separate Storm Sewer Systems (MS4), Phase 2 of the National Pollution Discharge Elimination System (NPDES) small municipal stormwater program. This program, which is part of the Federal Clean Water Act (and discussed further above), requires the County to regulate all projects that create and/or replace 5,000 square feet of impervious surface area (Placer County 2015).

Placer County General Plan

In addition to State and Federal regulations, the Placer County General Plan includes goals and policies protecting water resources:

Goal 6.A. To protect and enhance the natural qualities of Placer County's rivers, streams, creeks and groundwater.

- **Policy 6.A.1.** The County shall require the provision of sensitive habitat buffers which shall, at a minimum, be measured as follows: 100 feet from the centerline of

perennial streams, 50 feet from the centerline of intermittent streams, and 50 feet from the edge of sensitive habitats to be protected, including riparian zones, wetlands, old growth woodlands, and the habitat of special status, threatened or endangered species. Based on more detailed information supplied as a part of the review for a specific project or input from state or federal regulatory agency, the County may determine that such setback is not applicable in a particular instance or should be modified based on the new information provided. The County may, however, allow exceptions, such as in the following cases:

- Reasonable use of the property would otherwise be denied;
- The location is necessary to avoid or mitigate hazards to the public;
- The location is necessary for the repair of roads, bridges, trails, or similar infrastructure; or
- The location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the County determines there is no feasible alternative and the project has minimized environmental impacts through project design and infrastructure placement.

- **Policy 6.A.3.** The County shall require development projects proposing to encroach into a stream zone or stream setback to do one or more of the following, in descending order of desirability:
  - Avoid the disturbance of riparian vegetation;
  - Replace all functions of the existing riparian vegetation (on-site, in-kind);
  - Restore another section of creek (in-kind); and/or
  - Pay a mitigation fee for in-kind restoration elsewhere (e.g., wetland mitigation banking program).
- **Policy 6.A.4.** Where stream protection is required or proposed, the County should require public and private development to:
  - Preserve stream zones and stream setback areas through easements or dedications. Parcel lines (in the case of a subdivision) or easements (in the case of a subdivision or other development) shall be located to optimize resource protection. If a stream is proposed to be included within an open space parcel or easement, allowed uses and maintenance responsibilities within that parcel or easement should be clearly defined and conditioned prior to map or project approval;
  - Designate such easement or dedication areas (as described in a. above) as open space;
  - Protect stream zones and their habitat value by actions such as: 1) providing an adequate stream setback, 2) maintaining creek corridors in an essentially natural state, 3) employing stream restoration techniques where restoration

is needed to achieve a natural stream zone, 4) utilizing riparian vegetation within stream zones, and where possible, within stream setback areas, 5) prohibiting the planting of invasive, non-native plants (such as vinca major and eucalyptus) within stream zones or stream setbacks, and 6) avoiding tree removal within stream zones;

- Provide recreation and public access near streams consistent with other General Plan policies;
- Use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation and erosion, and shall be left in place until disturbed areas; and/or are stabilized with permanent vegetation that will prevent the transport of sediment off site; and 2) temporary vegetation sufficient to stabilize disturbed areas.
- Provide for long-term creek corridor maintenance by providing a guaranteed financial commitment to the County which accounts for all anticipated maintenance activities.

- **Policy 6.A.5.** The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff and to encourage the use of BMPs for agricultural activities.
- **Policy 6.A.6.** The County shall require development projects to comply with the municipal and construction stormwater permit requirements of the Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) Phase I and II programs and the State General Municipal and Construction permits. Municipal requirements affecting project design and construction practices are enacted through the County's Stormwater Quality Ordinance. Separate construction permits may be required by and obtained through the State Water Resources Control Board.
- **Policy 6.A.7.** All new development and redevelopment projects shall be designed so as to minimize the introduction of pollutants into stormwater runoff, to the maximum extent practicable, as well as minimize the amount of runoff through the incorporation of appropriate Best Management Practices.
- **Policy 6.A.8.** The County shall support implementation of Low Impact Development site design and Watershed Process Management requirements for new and redevelopment projects in accordance with the NPDES Phase I and II programs, and applicable NPDES permits.

- **Policy 6.A.9.** The County shall require that natural watercourses be integrated into new development in such a way that they are accessible to the public and provide a positive visual element.
- **Policy 6.A.10.** The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.
- **Policy 6.A.11.** Where the stream zone has previously been modified by channelization, fill, or other human activity, the County shall require project proponents to restore such areas by means of landscaping, revegetation, or similar stabilization techniques as a part of development activities.
- **Policy 6.A.12.** The County shall require that newly-created parcels include adequate space outside of watercourses' setback areas to ensure that property owners will not place improvements (e.g., pools, patios, and appurtenant structures), within areas that require protection.
- **Policy 6.A.13.** The County shall protect groundwater resources from contamination and further overdraft by pursuing the following efforts:
    - Identifying and controlling sources of potential contamination;
    - Protecting important groundwater recharge areas;
    - Encouraging the use of surface water to supply major municipal and industrial consumptive demands;
    - Encouraging the use of treated wastewater for groundwater recharge; and
    - Supporting major consumptive use of groundwater aquifer(s) in the western part of the County only where it can be demonstrated that this use does not exceed safe yield.
- **Policy 6.A.15.** The County shall encourage the protection of floodplain lands and, where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.

Placer County Conservation Plan

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 a Natural Communities Conservation Plan (NCCP) and a Habitat Conservation Plan (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 SIA (Figure 5-1). The PCCP includes two separate plans that support State and Federal permits: the Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP) and the Western Placer County Aquatic Resources Program (CARP). Because it relates mostly to habitat conservation and biological resources, the PCCP is discussed in detail

below under Section 5.3 "Biological Resources." However, part of the conservation, especially actions associated with the CARP related to water resources and fulfilling the requirements of the CWA. Please see Section 5.3 for more detail.

SECTION 5.3 BIOLOGICAL RESOURCES

Existing Conditions

This section is based on a review of the following:

- Records search and GIS query of the California Natural Diversity Database (CDFW 2015) for United States Geological Survey (USGS) 7.5-minute quadrangles for Sheridan, Lincoln, Gold Hill, Pleasant Grove, Roseville, Rocklin, Rio Linda, Citrus Heights, and Folsom;
- California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (CNPS 2015);
- U.S. Fish and Wildlife Service (USFWS) list of federally endangered, threatened, or candidate species that may occur in the planning area vicinity (USFWS 2015);
- 2013 Placer County General Plan (Placer County 2013a), Placer County General Plan EIR (Placer County 2013b);
- Administrative Draft Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan;
- Administrative Draft Western Placer County Aquatic Resources Program
- Recognized Aquatic and Wetland Resources in Placer County California (Placer County 2003).
- 2015 aerial imagery of the planning area (Google Earth 2015); and
- Six County Aquatic Resources Inventory (USACE 2011).

The SIA is within 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 planning area receives between 18 and 20 inches of precipitation in a typical year.

Prior to human development, the natural habitats within the SIA were primarily perennial grasslands, 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 within the SIA through diversions and installation of irrigation infrastructure. Nearby urbanization in the SIA and the cities of Lincoln, Rocklin, and Roseville have resulted in changes to surface water hydrology in the area through diversion of encasement of natural drainages, increased imperviousness, and urban runoff. These factors have further altered the aquatic habitats in the planning area. Non-native annual

grasses have replaced the native perennial grasslands, many of the intermittent ephemeral streams have been channelized and or impounded to create perennial streams and ponds, and riparian woodlands have been cleared. Presently, the planning area is dominated by annual grasslands, with small areas of existing industrial, rural residential, and commercial development.

Approximately 1,000 acres (12 percent) of the SIA are preserved as permanent open space in three existing conservation reserves, in the northern portion of the SIA: the Orchard Creek Conservation Bank, Warm Springs Mitigation Bank, and Moore Ranch Conservancy mitigation sites. Additionally, a large portion of the SIA (approximately 1,300 acres) adjacent to these existing reserves is identified and being considered in the PCCP as a possible reserve acquisition area. Section 5.6, "Open Space and Agricultural Resources," describes existing and potential future open space in further detail and includes a map showing these lands in the SIA.

Land Cover/Habitat Types

This section describes the land cover and habitat types present in the SIA, 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 Plan Area, which includes the SIA. The term *complex* is used to characterize some land cover types and define communities.

The PCCP uses the term *community* to describe the highest level of classification for the PCCP Plan Area. Communities are 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 wildlife habitat relationship (WHR) system used by the California Department of Fish and Wildlife (CDFW). The land cover types incorporate some California WHR 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 Plan Area. The PCCP analysis of these constituent wetland and riparian habitats is based on estimates of their presence in the various land cover types.

In this Existing Conditions Report for the SIA, the names and mapped boundaries (e.g., polygons) of land cover/habitat types are at the PCCP *land cover type* level. While portions of the planning 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. Annual grassland and vernal pool complex are the predominant natural land cover types in the SIA, followed by alfalfa, riverine/riparian complex, marsh complex, and pasture. Figure 5-4 shows the location and

extent of land cover types mapped in the SIA for the PCCP. Table 5-2 summarizes the acreage of each land cover type mapped in the SIA. The vegetated or natural land cover types in the SIA are described below. Stream and drainage features in the SIA are described separately above in Section 5.1, "Water Resources."

TABLE 5-2
PCCP COMMUNITIES AND LAND COVER TYPES
Sunset Industrial Area

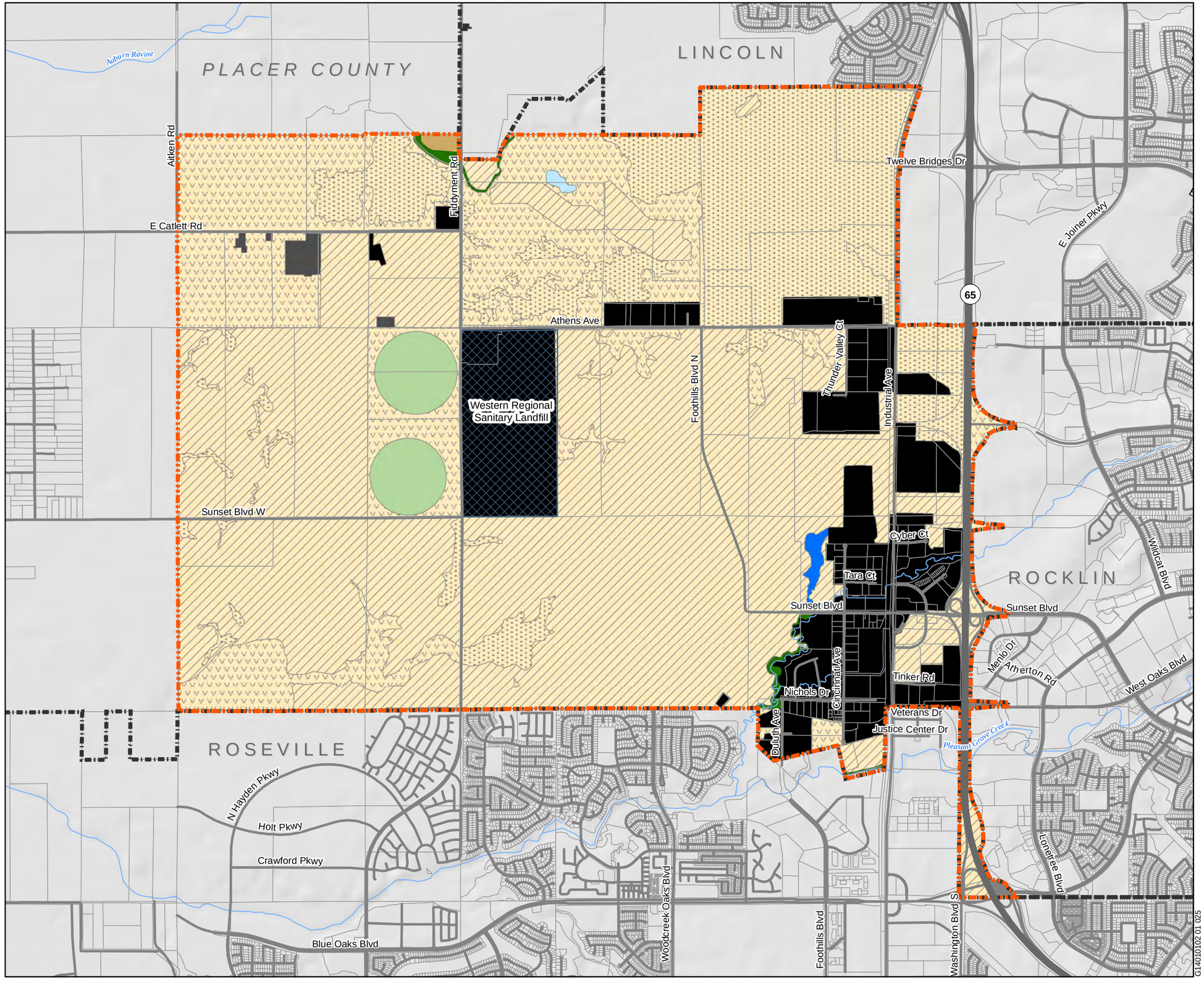
PCCP Community Type	PCCP Land Cover Type	Acres
Grassland/ Vernal Pool Complex	Annual Grassland	6,612.9
	Vernal Pool Complex (VPC)[1]	
	VPC High Density (> 5 percent wetted acres)	1,359.0
	VPC Intermediate Density (1-5 percent wetted acres)	1,382.4
	VPC Low Density (< 1 percent)	3,871.5
	Pasture	10.6
Riverine/Riparian Complex	Riverine/Riparian Complex	27.7
Aquatic/Wetland Complex	Marsh Complex	15.0
	Pond	6.2
Field Agriculture	Alfalfa	175.6
Urban	Urban and Suburban	1,124.9
	Road	167.7
Rural-Residential	Rural-Residential	30.9
	Total	**8,171.5**

[1]Vernal pool complex is included within and overlaps the annual grassland land cover type and acreage.

Source: PCCP GIS data, Placer County (received on August 11, 2015)

Sunset Area Plan | Figure 5-4

Land Cover



- Planning Area
- City Limits
- Western Regional Sanitary Landfill

Grassland/Vernal Pool Complex

- Annual Grassland
- Pasture

Vernal Pool Complex (VPC)

- VPC High Density (> 5%)
- VPC Intermediate Density (1-5%)
- VPC Low Density (< 1%)

Riverine/Riparian Complex

- Riverine/Riparian Complex

Aquatic/Wetland Complex

- Marsh Complex
- Pond

Field Agriculture

- Alfalfa

Urban

- Road
- Urban/Suburban

Rural-Residential

- Rural-Residential

160 acres
40
10

N

0 0.25 0.5 1 1.5 Miles

Date: 10-05-2015

Source: Placer County, 2015

Annual Grassland

Annual grassland habitats in the SIA support relatively low plant diversity and are dominated by non-native annual species, including ripgut brome (*Bromus diandrus*), soft chess (*Bromus mollis*), wild oat (*Avena fatua*), Italian rye (*Lolium multiflorum*), Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*), foxtail barley (*Hordeum murinum* spp. *leporinum*), hairgrass (*Aira caryophylla),* and medusahead grass (*Elymus caput-medusae*). Bird species associated with annual grasslands include the western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), loggerhead shrike (*Lanius ludovicianus*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), and Brewer's blackbird. Raptors such as the white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), red-tailed hawk, Swainson's hawk, northern harrier (*Circus cyaneus*), burrowing owl (*Athene cunicularia*), and great horned owl (*Bubo virginianus*) typically utilize annual grasslands. Common mammals associated with annual grassland include the California ground squirrel (*Spermophilus beecheyi*), opossum (*Didelphis virgiana*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), and a variety of small rodents.

Vernal Pool Complex

In the SIA, a vernal pool complex overlaps entirely with annual grassland but is defined as a separate land cover type in the PCCP to focus 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 vernal pool type wetlands. A wetland delineation would identify three wetland types associated with a vernal pool complex that may function as vernal pools and may be a habitat for vernal pool species: 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 the coarse scale of the vernal pool complex for purposes of regional conservation planning. Mapping at this scale, however, did not distinguish between types and sizes of pools/seasonal wetlands. Where a vernal pool complex is mapped, it includes vernal pool type wetlands and surrounding upland.

Vernal pools form in seasonally flooded depressions in annual grasslands under a combination of specific climatic, soil, hydrologic, and topographic conditions. 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 grassland, the previous description of the annual grassland land cover type applies here as well.

Vernal pool complex is comprised of three vernal pool complex land cover types – high, intermediate, and low – that differ in nominal wetland density. The presence of vernal pool type wetlands in a vernal pool complex was estimated semi-quantitatively for the PCCP as three

density classes with the following 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 2015a). The SIA 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 SIA (Figure 5-4), within existing conservation reserves and adjacent land being considered in the PCCP as a possible reserve acquisition area.

In the SIA wildlife species expected to occur in a vernal pool complex are similar to those observed or expected to occur in the annual grasslands. Many of the annual grassland habitats within the planning 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 Fiddyment Road, and the Orchard Creek Conservation Bank located north of Athens Road and east of Industrial Avenue.

Vernal pools are shallow depression 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. Vernal pool plant species likely to occur within the planning area include the winged water-starwort (*Callitriche marginata*), annual hairgrass (*Deschampsia danthonioides*), horned downingia (*Downingia ornatissima*), coyote thistle (*Eryngium vaseyi*), bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus*), spine-fruit butter-cup (*Ranunculus bonariensis*), and purslane speedwell (*Veronica peregrina*).

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 planning area, and the western toad (*Bufo boreas*) is likely to occur there as well. Other wildlife species expected to occur in vernal pools and seasonal wetlands in the planning area are similar to those observed or expected to occur in the annual grasslands.

Pasture

In the PCCP, the pasture land cover type covers a range of grazing intensity and irrigation practices. Areas mapped as pasture are differentiated from annual grassland and vernal pool

complex lands in that they show more extensive terrain modification to accommodate irrigation and from mechanical tilling for planting.

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 pasture species and non-native wetland species such as ryegrass (*Lolium* spp.), fescues (*Festuca* spp.), dallisgrass (*Paspalum dilatatum*), orchard grass (*Dactylis glomerata*), velvet grass (*Holcus lanatus*), Bermuda grass (*Cynodon dactylon*), curly dock (*Rumex crispus*), lady's-thumb (*Polygonum* spp.), barnyard grass (*Echinochloa crus-galli*), and white clover (*Trifolium repens*). Himalayan blackberry is common and invasive in irrigated pastures in western Placer County; other potentially occurring noxious weeds include bull thistle (*Cirsium vulgare*), Bermuda grass, perennial pepperweed (*Lepidium* spp.), nimblewell (*Muhlenbergia schreberi*), and Johnsongrass (*Sorghum halepense*). Native species in irrigated pastures are generally found only in wetland settings.

Wildlife species associated with pasture in western Placer County are generally similar to those described above for annual grassland. Birds that typically forage in the County's irrigated pastures include the great blue heron (*Ardea herodias*), great egret (*Ardea alba*), Canada goose (*Branta canadensis*), American kestrel (*Falco sparverius*), California quail (*Callipepla californica*), western kingbird, American crow (*Corvus brachyrhynchos*), western meadowlark, Brewer's blackbird (*Euphagus cyanocephalus*), 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 (*Scirpus acutus*), and common rush (*Juncus effusus*). They provide potential habitat for a variety of species including tricolored blackbirds, red wing blackbirds, bullfrog (*Rana catesbeiana*), Pacific tree frog (*Pseudacris regilla*), and the common garter snake (*Thamnophis sirtalis*).

In the SIA, pond habitat is composed as a single pond in the northern portion of the planning area; the marsh complex in the SIA consists of fresh emergent marsh habitat concentrated in the southeast corner, adjacent to urban and suburban lands (Figure 5-4).

Riverine/Riparian Complex

Riparian areas provide important habitat for a variety of wildlife. In the planning area, riverine/riparian complex is composed of valley foothill riparian habitat that occurs in narrow strips along Orchard Creek and Pleasant Grove Creek. Vegetation composition includes a mix of trees, shrubs, and herbaceous vegetation, including valley oak (*Quercus lobata*), Oregon ash (*Fraxinus latifolia*), coyote brush (*Baccharis pilularis*), willow (*Salix* spp.), Himalayan blackberry (*Rubus armeniacus*) willow herb (*Epilobium* spp.), sedges (*Carex* spp.), and rough cocklebur (*Xanthium strumarium*). Wildlife species that utilize the valley foothill riparian and

adjacent grassland habitats include the lesser goldfinch (*Carduelis psaltria*), western scrub-jay (*Aphelocoma caerulescens*), acorn woodpecker (*Melanerpes formicivorus*), Anna's hummingbird (*Calypte anna*), house sparrow (*Passer domesticus*), California ground squirrel, western gray squirrel (*Sciurus griseus*), opossum, striped skunk, raccoon, muskrat (*Ondatra zibethicus*), and American beaver (*Castor canadensis*).

Alfalfa

Agricultural land provides food and cover for small mammals, which in turn provide a prey base for raptors. Alfalfa fields adjacent to the WRSL are irrigated and provide potential foraging habitat for several bird species such as the horned lark (*Eremophila alpestris*), brewer's blackbird, red-winged blackbird, tricolored blackbird (*Agelaius tricolor*), western meadowlark, and savannah sparrow (*Passerculus sandwichensi*). A variety of small mammals including the deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), Botta's pocket gopher (*Thomomys bottae*), cottontail (*Sylvilagus audubonii*), and black-tailed hare (*Lepus californicus*) use alfalfa fields and provide food sources for raptors such as red-tailed hawk (*Buteo jamaicensis*) and Swainson's hawk (*Buteo swainsoni*).

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 and organizations. 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 natural communities and habitats are those of special concern to resource agencies because of their rarity and/or value as wildlife habitat. For example, wetlands and other waters of the United States are afforded specific consideration under Section 404 of the Clean Water Act, and aquatic and riparian habitats are subject to regulation by the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code.

Sensitive habitats known to occur in the SIA include vernal pool type wetlands within vernal pool complexes, marsh complexes, and riverine/riparian complexes. These habitats are discussed above under "Land Cover/Habitat Types" and displayed on Figure 5-4, and they would likely be considered jurisdictional by USACE, the Central Valley RWQCB under Section 404 of the CWA, and the Porter-Cologne Act, and/or CDFW.

Based on a review of California Natural Diversity Database (CNDDB) data in adjacent areas, other sensitive habitats with the potential to occur in the SIA include northern claypan vernal

pool, northern hardpan vernal pool, northern volcanic mud flow vernal pool, and valley needle grassland.

Special-Status Species

Special-status species include plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource agencies and specific conservation organizations. In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or expected decline or limitation of its population size, geographical extent, and/or distribution that results, in most cases, from habitat loss. Special-status species are defined as plants and animals in the following categories:

- Listed, proposed, or candidate species for listing by USFWS as Threatened or Endangered under the ESA;
- Listed or proposed for listing as rare, threatened, or endangered under CESA;
- Listed as Fully Protected under Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians) of the California Fish and Game Code;
- Animals designated by CDFW as species of special concern;
- Plants considered by CDFW to be rare, threatened, or endangered in California (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere. The California Rare Plant Ranks correspond with and replace former CNPS listings. While these rankings do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under CEQA.);
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section15125 (c)) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G); and
- Otherwise meets the definition of rare or endangered under CEQA Section 15380(b) and (d).

Table 5-3 lists special-status animal and plant species known to occur, or with potential to occur, in the SIA. The table also summarizes these species' regulatory status, habitat associations, and potential for occurrence. Of these species, the following have been documented within the SIA: western spadefoot (*Spea hammondii*), tricolored blackbird (*Agelaius tricolor*), Loggerhead shrike (*Lanius ludovicianus*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus Packardi*), Ahart's dwarf rush (*Juncus leiospermus var. ahartii*), dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), and legenere (*Legenere limosa*).

TABLE 5-3
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR
Sunset Industrial Area

Species	Status[1]			Habitat
	Federal	State	CRPR	
Amphibians				
western spadefoot *Spea hammondii*	-	SSC	-	Vernal pools and other seasonal ponds with a minimum 3-week inundation period (for breeding and egg laying) in valley and foothill grasslands, and valley-foothill hardwood woodlands.
Reptiles				
western pond turtle *Actinemys marmorata*	-	SSC	-	Forage in ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nest in nearby uplands with low, sparse vegetation.
giant garter snake *Thamnophis gigas*	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. Also require upland refugia not subject to flooding during the snake's inactive season.
Birds				
tricolored blackbird *Agelaius tricolor*	-	SSC	-	Highly colonial species. 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 (Schuford and Gardali 2008: 439).
Loggerhead shrike *Lanius ludovicianus*	-	SSC	-	Forages in grasslands and agricultural fields, and nests in scattered shrubs and trees.
grasshopper sparrow *Ammodramus savannarum*	-	SSC	-	Dense grasslands on rolling hills, lowland plains, and in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.
burrowing owl *Athene cunicularia*	-	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.

TABLE 5-3
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR
Sunset Industrial Area

Species	Status[1]			Habitat
	Federal	State	CRPR	
Swainson's hawk *Buteo swainsoni*	-	T	-	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
white-tailed kite *Elanus leucurus*	-	FP	-	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees.
California black rail *Laterallus jamaicensis coturniculus*	-	T	-	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.
song sparrow ("Modesto" population) *Melospiza melodia*	-	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.
purple martin *Progne subis*	-	SSC	-	Inhabits woodlands, low elevation coniferous forest, and suburban areas Nests primarily in old woodpecker cavities and human-made structures. Nest is often located in a tall, isolated tree/snag.
bank swallow *Riparia riparia*	-	T	-	Nests in colonies in unvegetated vertical banks with fine-textured, sandy soils, typically next to streams, rivers, or lakes, occasionally in gravel quarries or other eroding bluffs. Forages in a variety of habitats near nests.
Mammals				
Townsend's big-eared bat *Corynorhinus townsendii*	-	SSC	-	Range throughout California, mostly in mesic habitats. Limited by available roost sites (i.e., caves, tunnels, mines, and buildings). Sensitive to human disturbance.
pallid bat *Antrozous pallidus*	-	SSC	-	Locally common at lower elevations in California and occurs in grassland, shrubland, woodland, and mixed conifer forests. Absent from highest elevation locations in the Sierra Nevada. Rocky outcrops, caves, crevices, and occasional tree cavities or buildings provide roosts.
American badger *Taxidea taxus*		SSC	-	Drier open shrub, forest, and herbaceous habitats with friable soils. Needs open, uncultivated land.

TABLE 5-3
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR
Sunset Industrial Area

Species	Status[1]			Habitat
	Federal	State	CRPR	
Invertebrates				
Conservancy fairy shrimp *Branchinecta conservatio*	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.
vernal pool fairy shrimp *Branchinecta lynchi*	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).
vernal pool tadpole shrimp *Lepidurus packardi*	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.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	-	-	Elderberry shrubs (blue elderberry [*Sambucus mexicana*]) below 3,000 feet in elevation, typically in riparian habitats. Found in stems measuring 1 inch or greater at ground level.
Plants				
stinkbells *Fritillaria agrestis*	-	-	4.2	Cismontane woodland, chaparral, valley and foothill grassland. Sometimes on serpentine; mostly found in nonnative grassland or in grassy openings in clay soil. Elevation range: 10-1,555 m.
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	-	-	1B.2	Vernal pools, valley and foothill grassland. Restricted to the edges of vernal pools. Elevation range: 30-229 m.
Red Bluff dwarf rush *Juncus leiospermus var. leiospermus*	-	-	1B.1	Chaparral, valley and foothill grassland, cismontane woodland, vernal pools, meadows and seeps. Vernally mesic sites. Sometimes on edges of vernal pools. Elevation range: 35-1250 m.
Sacramento Orcutt grass *Orcuttia viscida*	E	E	1B.1	Vernal pools. Elevation range: 30-100 m.
Sanford's arrowhead *Sagittaria sanfordii*	-	-	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. Elevation range: 0-650 m.
big-scale balsamroot *Balsamorhiza macrolepis*	-	-	1B.2	Chaparral, valley and foothill grassland, cismontane woodland.

TABLE 5-3
SPECIAL-STATUS SPECIES KNOWN OR WITH POTENTIAL TO OCCUR
Sunset Industrial Area

Species	Status[1]			Habitat
	Federal	State	CRPR	
hispid salty bird's-beak *Chloropyron molle ssp. hispidum*	-	-	1B.1	Meadows and seeps, playas, valley and foothill grassland.
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	-	-	4.2	Chaparral, cismontane woodland, lower montane coniferous forest. Often in roadcuts. Elevation range: 75-915 m.
dwarf downingia *Downingia pusilla*	-	-	2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. Elevation range: 1-445 m.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	-	E	1B.2	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. Elevation range: 10-2,375 m.
legenere *Legenere limosa*	-	-	1B.1	In beds of vernal pools. Elevation range: 1-880 m.
pincushion navarretia *Navarretia myersii ssp. myersii*	-	-	1B.1	Vernal pools. Clay soils within nonnative grassland. Elevation range: 20-330 m.

Notes: ESA = Federal Endangered Species Act; CESA = California Endangered Species Act, CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database.

[1] Legal Status Definitions
Federal: E = Endangered (legally protected under ESA); T = Threatened (legally protected under ESA)
State: E = Endangered (legally protected under CESA); T = Threatened (legally protected under CESA); FP = Fully Protected Species; SSC Species of Special Concern
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); 2 = Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA); 3 = Plants for which more information is needed – a review list;.
CRPR Extensions: 1 = Seriously endangered in California (>80 percent of occurrences are threatened and/or high degree and immediacy of threat);
2 = Fairly endangered in California (20 to 80 percent of occurrences are threatened).
Sources: CNDDB 2015; CNPS 2015; data compiled by Ascent in 2015

Critical Habitat and Recovery Core Areas

On August 11, 2005, the USFWS published the final critical habitat designations for four vernal pool crustaceans and 11 vernal pool plants (70 Federal Register [FR] 46924). That rule designated critical habitat for 15 vernal pool species. Administrative revisions with species-by-unit designations were published on February 10, 2006 (71 FR 7117). Critical habitat was designated for the three vernal pool crustaceans know to occur in the planning area: vernal pool fairy shrimp, vernal pool tadpole shrimp, and Conservancy fairy shrimp. Of these three species, only vernal pool fairy shrimp has critical habitat designated in western Placer County. Additionally, USFWS published a recovery plan for vernal pool species in 2005 (USFWS 2005), including vernal pool fairy shrimp. This plan includes recovery goals for a vernal pool core area defined in western Placer County. The SIA is not located within critical habitat for vernal pool fairy shrimp; the nearest critical habitat unit is located approximately three miles north of the SIA. However, nearly all of the SIA is within the vernal pool recovery core area (Figure 5-5).

Western Placer County also includes designated critical habitat for Central Valley steelhead. The SIA does not include such habitat, and the nearest stream designated as critical habitat for steelhead (migration and/or rearing habitat) is approximately one mile north of the SIA on Auburn Ravine (Figure 5-6).

Sunset Area Plan | Figure 5-5

Vernal Pool Fairy Shrimp Critical Habitat

- Planning Area
- Vernal Pool Fairy Shrimp Critical Habitat
- Vernal Pool Recovery Plan Core Areas

160 acres
40
10

N

0 1 2 4 6 Miles

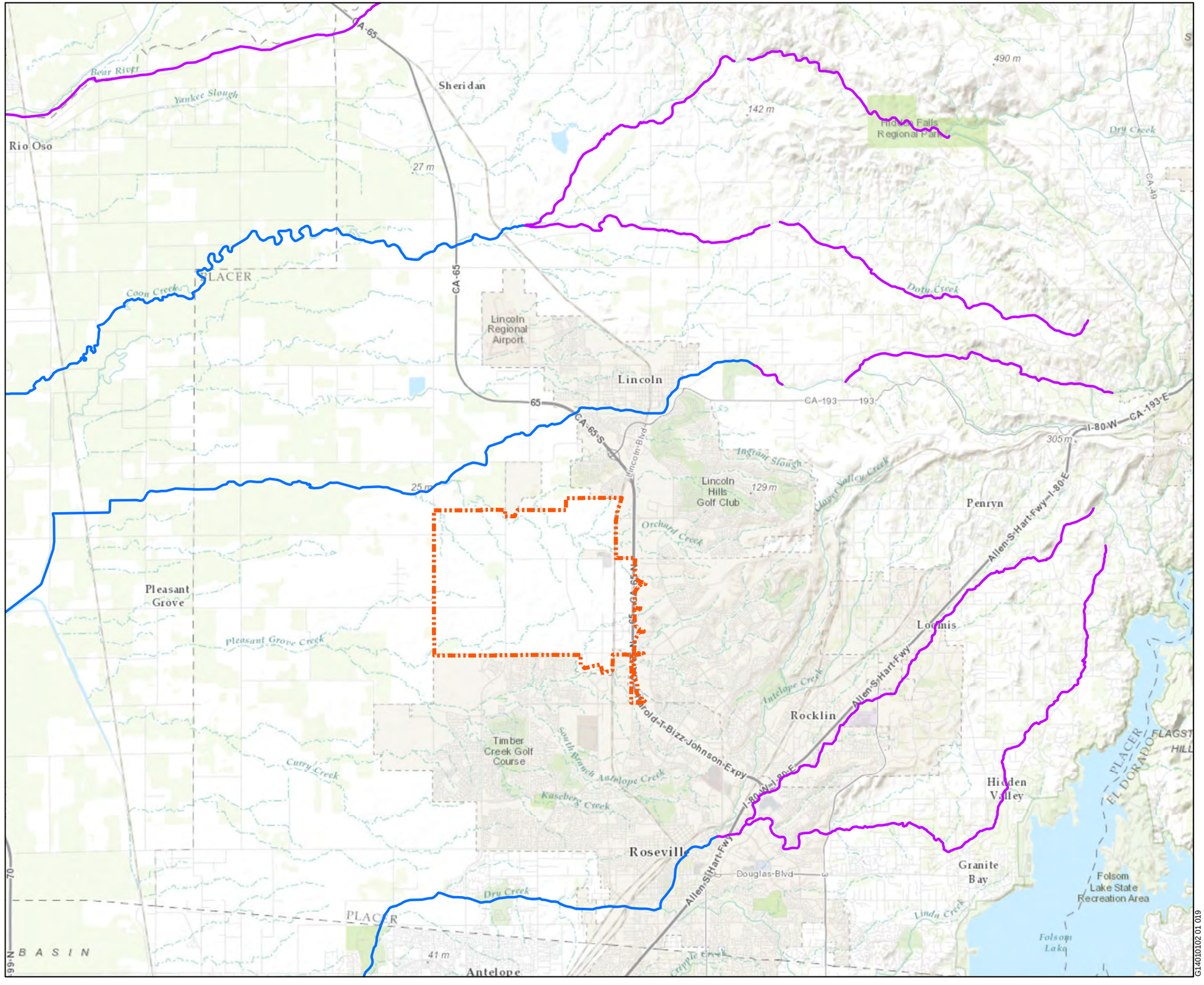
Date: 08-19-2015

Source: Placer County, 2015

G14010102 01 018

Sunset Area Plan | Figure 5-6

Central Valley Steelhead Critical Habitat



Planning Area

Spawning

Rearing and/or Migration

160 acres

40

10

N

0 1 2 4 6 Miles

Date: 08-19-2015

Source: USFWS, 2005

G1401102 01 019

Regulatory Setting

A summary of applicable Federal, State, and local plans, policies, regulations, and laws related to biological resources is provided below.

Federal

Federal Endangered Species Act

Pursuant to the Federal Endangered Species Act (16 U.S.C. Section 1531 et seq.), 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. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Two sections of the ESA address take. Section 10 regulates take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. However, if a project would result in take of a federally-listed species and federal discretionary action (even if a non-federal agency is the overall lead agency) is involved (i.e., a federal agency must issue a permit), the involved federal agency consults with USFWS under Section 7 of the ESA. Because implementation of the SIA plan may involve federal permits, interagency cooperation under Section 7 of the ESA is required. Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA 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. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal

Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

Clean Water Act (CWA)

The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Section 401 prohibits the discharge of any pollutant into the Nation's waters without a permit, and Section 402 establishes the permit program. Section 404 of the CWA regulates activities that result in discharge of dredged or fill material into waters of the United States.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State's water quality standards and criteria. In California the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. A request for certification is submitted to the regional board at the same time that an application is filed with USACE. The regional board has 60 days to review the application and act on it. Because no USACE permit is valid under the CWA unless "certified" by the State, these boards may effectively veto or add conditions to any USACE permit.

Section 404

USACE is responsible for permitting certain types of activities affecting wetlands and other waters of the United States. Under Section 404 of the CWA, USACE has the authority to regulate activity that could discharge fill or dredge material, or otherwise adversely modify wetlands or other waters of the United States. USACE implements the Federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland values or acres. Filling of any jurisdictional features within the SIA would require a Section 404 permit.

State

California Endangered Species Act (CESA)

The CDFW administers a number of laws and programs designed to protect fish and wildlife resources. Principal among these is the CESA of 1984 (Fish and Game Code, Section 2050), which regulates the listing and take of state-endangered and state threatened species. CESA declares that deserving species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the

people of the state. The CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under the CESA cannot be "taken" without adequate mitigation and compensation. The definition of take under the CESA is the same as described above for the ESA. However, based on findings of the California Attorney General's Office, regulation of take under CESA does not prohibit indirect harm by way of habitat modification. Typically, the CDFW implements endangered species protection and take determinations by entering into management agreements (Fish and Game Code, Section 2081) with project applicants.

California Fish and Game Code

CDFW Lake and Streambed Alteration Agreements

Under Sections 1600-1616 of the Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of the CDFW's jurisdiction are defined in the code as the "... bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ..." (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that elements of the SIA Plan (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

California Fish and Game Code Sections 3511, 4700, 5050, and 5515.

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time. The California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by the CDFW.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is described above in Section 5.2 "Water Resources."

Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code sections 1900-1913) prohibits the taking, possession, or sale within the state of any rare, threatened, or endangered plants as defined by the CDFW. Under this act, landowners with rare plants on their property must provide the CDFW 10 days of notice to salvage (remove for transplant) the plants before destruction occurs. Project impacts to these species would be considered significant if the species are known to occur within the area of disturbance associated with construction of the project, or potentially significant if the species has a high potential to occur within the area of disturbance.

Local

Placer County General Plan

In addition to State and Federal regulations, the Placer County General Plan defines certain goals, objectives, and policies protecting natural resources:

Goal 1.I: To establish and maintain interconnected greenbelts and open spaces for the protection of native vegetation and wildlife and for the community's enjoyment.

- **Policy 1.I.1.** The County shall require that significant natural, open space and cultural resources be identified in advance of development and incorporated into site-specific development project design. The Planned Residential Developments (PDs) and the Commercial Planned Developments (CPD) provisions of the Zoning Ordinance can be used to allow flexibility for this integration with valuable site features.
- **Policy 1.I.2.** The County shall require that development be planned and designed to avoid areas rich in wildlife or of a fragile ecological nature (e.g., areas of rare or endangered plant species, riparian areas). Alternatively, where avoidance is infeasible or where equal or greater ecological benefits can be obtained through off-site mitigation, the County shall allow project proponents to contribute to off-site mitigation efforts in lieu of on-site mitigation.

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 the 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.

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.1.** The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:
    - Wetland areas including vernal pools,
    - Stream zones,
    - Any habitat for special status, threatened or endangered animals or plants,

- Critical deer winter ranges (winter and summer), migratory routes and fawning habitats,
- Large areas of non-fragmented natural habitat, including blue oak woodlands, valley foothill and montane riparian, valley oak woodlands, annual grasslands, and vernal pool/grassland complexes,
- Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway, and
- Important spawning and rearing areas for anadromous fish.

- **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.8.** The County shall support the preservation or reestablishment of fisheries in the rivers and streams within the County, whenever possible.
- **Policy 6.C.9.** The County shall require new private or public developments to preserve and enhance existing native 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:
    - Wetland areas including vernal pools,
    - Stream zones,
    - Any habitat for special status, threatened or endangered animals or plants,
    - Critical deer winter ranges (winter and summer), migratory routes and fawning habitat,
    - 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 habtitat,
    - Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway, and
    - Important spawning and rearing areas for anadromous fish.
- **Policy 6.C.12.** The County shall cooperate with, encourage, and support the plans of other public agencies to acquire fee title or conservation easements to privately-owned lands in order to preserve important wildlife corridors and to provide habitat protection of California Species of Concern and state or federally listed threatened, or endangered plant and animal species, or any species listed in an implementing agreement for a habitat conservation plan and natural communities conservation plan.
- **Policy 6.C.13.** The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and

protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered or threatened species and their habitats, wetland habitats, wildlife migration corridors, and locally important species/communities.

- **Policy6.C.14.** The County shall support the management efforts of the California Department of Fish and Wildlife to maintain and enhance the productivity of important fish and game species (such as the Blue Canyon and Loyalton Truckee deer herds) by protecting important natural communities for these species from incompatible urban/suburban, rural residential, agricultural, or recreational development.

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

- **Policy 6.D.1.** The County shall encourage landowners and developers to preserve existing terrain and natural vegetation in visually-sensitive areas such as hillsides, ridges, and along important transportation corridors.
- **Policy 6.D.2.** The County shall require developers to use native and compatible non-native species especially drought-resistant species, to the extent possible in fulfilling landscape requirements imposed as conditions of discretionary permits 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.9.** The County shall require that development on hillsides be limited to maintain valuable natural vegetation, especially forests and open grasslands, and to control erosion.
- **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.
- **Policy6.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 corridors 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, riparian areas). Where feasible, these areas should be protected through public or private acquisition of fee title or conservation easements to ensure protection.

Goal 6.E: To preserve and enhance open space lands to maintain the natural resources of the county.

- **Policy 6.E.1.** 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. The County shall permanently protect, as open space, areas of natural resource value, including wetlands preserves, riparian corridors, unfragmented woodlands, and floodplains.
- **Policy 6.E.2.** The County shall require that new development be designed and constructed to preserve the following types of areas and features such as open space to the maximum extent feasible:
    - High erosion hazard areas,
    - Scenic and trail corridors,
    - Streams, streamside vegetation,
    - Wetlands,
    - Other significant stands of vegetation,
    - Wildlife corridors, and

- Any areas of special ecological significance.

- **Policy 6.E.3.** The County shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity sustain viable populations, accommodate wildlife movement, and sustain ecosystems.
- **Policy 6.E.4.** The County shall coordinate with local, state, and federal agencies and private organizations to establish visual and physical links among open space areas. Where appropriate these open space areas are to be connected by scenic corridors, wildlife corridors and trails. Dedication of easements shall be encouraged, and in many cases, required as lands are developed and built.

Placer County Conservation Plan

The SIA is located within the PCCP Plan Area. The following summarizes the PCCP, currently in preparation, and its relationship to biological resources and subsequent projects that could be developed under the SIA Plan.

Background

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 a Natural Communities Conservation Plan (NCCP) and a Habitat Conservation Plan (HCP) in three phases. The first phase, which is currently underway but not yet completed or approved, is now known as the Placer County Conservation Plan (PCCP) and encompasses western Placer County, including the SIA.

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 will 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 will 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 will 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 all of the major wetland and endangered species act permits that are required for land development activity that may occur on public and private property in Western Placer County.

Covered Activities

The PCCP identifies and describes various categories of activities that will be covered by the Plan. These activities are widespread and varied including urban and rural development, water management, conservation measures, facilities maintenance and numerous other actions that are undertaken by the Permittees or by individuals or entities under their jurisdiction. Covered activities are grouped into categories based on similarity of effect, location, and/or nature of the activity. In the PCCP, the covered activities are defined in general terms (e.g., grading) and in very specific terms (e.g., the construction of Placer Parkway). The effects analysis in the PCCP provides details and sets the quantitative scope of the covered activities in order to estimate the potential effect and establish permit term limits on habitat loss and covered species take.

The PCCP permit term would run for 50 years. The vast majority of covered activities will be associated with land conversion to accommodate urban and suburban growth, rural development, and associated infrastructure over the permit term. The effects of growth will account for 98 percent of the overall estimated effect of covered activities under the PCCP. The effects on natural communities and covered species are based on estimates of land conversion associated with a growth scenario that analyzed the form (e.g., density) and location of growth (the County and City of Lincoln General Plans). The growth scenario also considered the results of the 2010 Census and the most current demographic and economic information available for the Sacramento Region including Placer County. The growth projection was divided into distinct geo-political subareas of western Placer County, and took into consideration the effects of the Great Recession and recent indications of recovery from that downturn.

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 will 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 will be restored. These protected and restored lands will augment the approximately 16,000 acres of land that is in conservation today. Cumulatively, 38 percent of the present natural and semi-natural landscape in western Placer County would ultimately be subject to conservation management.