7. Biological Resources

This chapter describes biological resources in the proposed project area and evaluates potential impacts on biological resources associated with Plan Concept 1 and Plan Concept 2. These two plan concepts include similar design elements, but the locations and characteristics of the elements vary between the two plans.

7.1 Environmental Setting

This section discusses the biological setting within the 928.5-acre proposed project area that includes three discrete properties: the eastern, center, and western properties. The proposed project area does not include the Fiddyment Road right of way. The proposed project area includes a range of natural, developed, and modified or disturbed land cover types that include aquatic resources and habitat for special-status plant and wildlife species. The assessment methodology and environmental conditions are detailed in the following sections.

7.1.1 Methodology

Baseline biological conditions were characterized by using desktop analysis and field surveys. Desktop analysis included a review of publicly available databases, existing reports, and other literature, as well as desktop mapping of aquatic resources outside the proposed project area. Field surveys included a reconnaissance wildlife survey and habitat assessment, rare plant surveys, and an aquatic resource delineation, as described in the following sections.

Background Literature and Database Review

Before conducting biological field surveys in 2017, a desktop review of available databases and other resources was performed to identify sensitive biological resources that may be affected by the proposed project. Sensitive resources include special-status plant and wildlife species, designated critical habitat, and potentially jurisdictional waters of the United States and the State of California. A species was considered to have special status if it met one or more of the following criteria:

- Listed, proposed, or candidate for listing as rare, threatened, or endangered under the Federal Endangered Species Act (FESA)
- Listed, proposed, or candidate for listing as rare, threatened, or endangered under the California Endangered Species Act (CESA)
- California Department of Fish and Wildlife (CDFW) Fully Protected Species or Species of Special Concern (SSC)
- California Rare Plant Rank of 1A, 1B, 2A, and 2B by the California Native Plant Society (CNPS) in its online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2021)

The following databases and other resources were reviewed before conducting the field surveys, and the database review was refreshed during the preparation of the environmental impact report (EIR):

- California Natural Diversity Database (CNDDB) species occurrences within 5 miles of the proposed project area (CDFW 2021a; Figures 7-1a and 7-1b)
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2021a)
- (CNPS Inventory of Rare and Endangered Plants of California (CNPS 2021) for the Roseville U.S. Geological Survey (USGS) 7.5-minute quadrangle and the eight surrounding quadrangles: Sheridan, Lincoln, Gold Hill, Pleasant Grove, Rocklin, Rio Linda, Citrus Heights, and Folsom.

- Soil maps and descriptions (NRCS 2021a; 2021b)
- USGS topographic maps (USGS 2021)
- National Hydrography Dataset (USGS 2021)
- USFWS National Wetlands Inventory (USFWS 2021b)

Reconnaissance Surveys

A joint habitat assessment survey and reconnaissance wildlife survey were conducted in May and June 2017 to characterize and document the existing wildlife resources in the proposed project area and evaluate the potential for special-status wildlife species to occur, including active and inactive nesting sites for birds that are protected under the Migratory Bird Treaty Act (MBTA) or with special state or federal listing status. The assessment consisted of a visual survey and transect pedestrian surveys of the eastern, center, and western properties of the proposed project. Surveys were conducted with binoculars and a spotting scope to determine nest activity. Vegetation was systematically viewed from various angles to determine wildlife usage, with a specific focus on nesting activity. No species-specific or protocol surveys were conducted.

Focused Surveys

Botanical Survey.

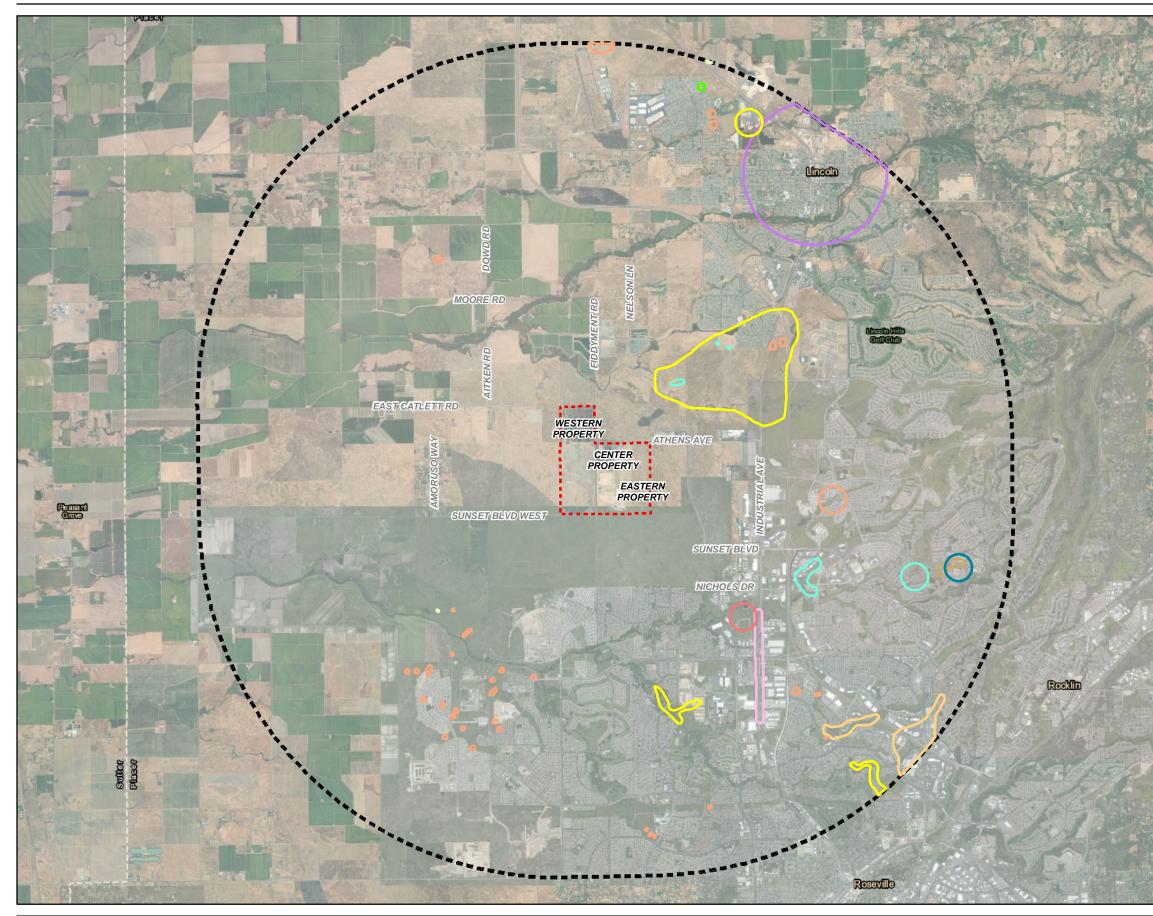
Botanical surveys were conducted in May and June 2017 by walking meandering transects across the proposed project area, with more focused surveys in vernal pools and seasonal wetland habitats. Developed sites (including landscaped or highly disturbed vegetation around residential and farm buildings, parking lots, and other developed areas, as well as cultivated alfalfa fields) were not included in the surveys. The botanical surveys were floristic and comprehensive, meaning that all plants observed were identified to the taxonomic level necessary to determine whether they had any conservation status. Species that were not immediately identifiable to the surveyors were collected and later identified, using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Information on the number of plants, phenology, habitat, and location of special-status plants was noted during the survey, and the locations were mapped by using iPad data collectors with Trimble Global Positioning System (GPS) receivers.

Aquatic Resource Delineation.

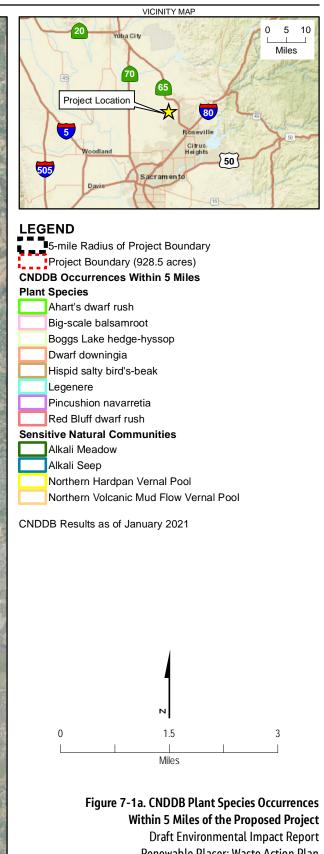
An aquatic resource delineation of the proposed project area was conducted in late spring 2017. The delineation methodology followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (U.S. Army Corps of Engineers 2008). Information on vegetation, soils, and hydrology for wetlands and adjacent uplands within the proposed project area was recorded on wetland determination data sheets. Long-term rainfall conditions, as well as seasonal rainfall, site drainage, landscape position, general site topography, and land use, were considered while making wetland hydrology determinations.

Wetland boundaries were determined based on notable changes in vegetation as well as micro-topography. Once a wetland boundary was identified, a Trimble Geo XH GPS or iPad data collector with Trimble GPS receivers was used to map the boundary. Both mapping systems have post-processed submeter accuracy.

The wetland delineation has not yet been verified by the U.S. Army Corps of Engineers (USACE). In 2021, aquatic resources within 250 feet from the proposed project area perimeter were mapped as a desktop exercise, using a combination of aerial imagery and topographic data. The purpose of mapping resources outside the proposed project area was to approximate indirect impacts to aquatic resources in the immediate vicinity of the proposed project, as a result of project construction.

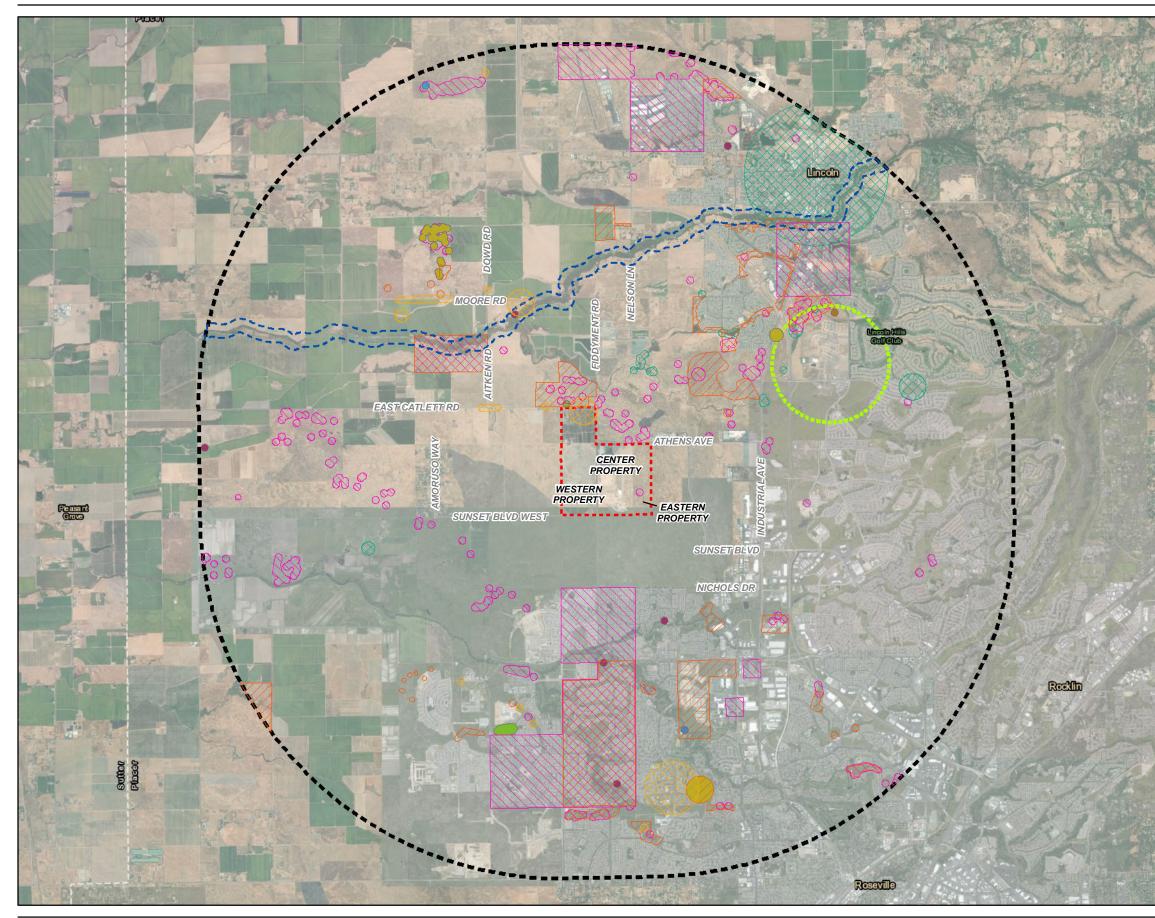


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Renewable Placer: Waste Action Plan Placer County, California





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CNDDB Results as of January 2021

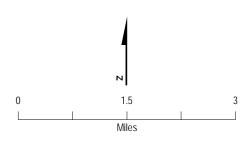


Figure 7-1b. CNDDB Animal Species Occurrences Within 5 Miles of the Proposed Project Draft Environmental Impact Report Renewable Placer: Waste Action Plan Placer County, California



7.1.2 Climate

The proposed project is located in the Sacramento Valley, which is relatively flat terrain bordered by mountain ranges to the east, west, and north. The climate is characterized by hot, dry summers and cool, rainy winters, sometimes with periods of dense fog, most often between winter storms. In the Sacramento Valley, there is little ocean influence on climate, giving the interior Mediterranean climate's more seasonal temperature variation (Ahrens 2003).

Hot, dry summers tend to cause rapid drying of surface water throughout the region. The climate, coupled with a hardpan layer underlying soils (see Section 7.1.3), creates suitable conditions for the formation of vernal pools. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, surface water gradually evaporates until the pools are completely dry by the summer and fall.

7.1.3 Soils and Topography

The proposed project is located along the eastern edge of the Hardpan Terraces subsection of the Great Valley Ecological Section (Miles and Goudey 1997). The Hardpan Terraces subsection features terraces along the eastern edge of the Sacramento and San Joaquin valleys composed predominantly of Pleistocene alluvium derived from granitic, sedimentary, volcanic, and metamorphic sources. The landscape is characterized by gently sloping terraces with small floodplain areas and alluvial fans along the rivers and streams flowing from the Sierra Nevada mountains westward into the Sacramento and San Joaquin Rivers. Elevations throughout the proposed project area range between 106 and 134 feet above mean sea level.

Several soil types in the Sacramento Valley have dense subsurface clay and hardpan layers that impede water percolation and may become seasonally saturated. These soils often support wetlands, commonly vernal pool wetlands, when found in topographic depressions that hold water into the dry season.

7.1.4 Hydrology

The proposed project area is located within the Auburn Ravine and Pleasant Grove Creek-Cross Canal watersheds (USGS 2021). The watersheds collectively drain approximately 189 square miles. The Auburn Ravine watershed drains to the East Side Canal in southeastern Sutter County, and the Pleasant Grove Creek-Cross Canal watershed empties into the Cross Canal and then into the Sacramento River (Placer County 2017).

Within the proposed project area, natural hydrology is primarily influenced by precipitation forming seasonal vernal pool and vernal swale complexes in topographic depressions across the relatively flat landscape. Altered local hydrology includes the excavation and formation of deeper ponded areas, irrigated wetlands in the southwestern property, and constructed vernal pool habitat (constructed as mitigation for prior development) in the southwestern corner of the center property.

7.1.5 Land Cover Types

Overview

As mentioned previously, the proposed project area consists of three discrete properties, totaling 928.5 acres, and does not include the Fiddyment Road right of way. The northwestern and southwestern parts of the western property were characterized independently for biological resources, because of their discrete differences in land use and the habitats present. The southwestern area is currently leased to the City of Lincoln for discharge of reclaimed water. The southwestern area consists of agricultural land (pivot-irrigated alfalfa [*Medicago sativa*]) and non-native grasslands that are periodically mowed and baled. Other land

cover types on this property include agricultural irrigation ponds, swales, and irrigated wetlands. The northwestern area is mostly non-native grassland. Much of the northwestern property appears to be regularly disturbed by burns and tilling, based on disked and furrowed roads and aerial photographs taken between 1993 and 2016 (Google Earth 2021).

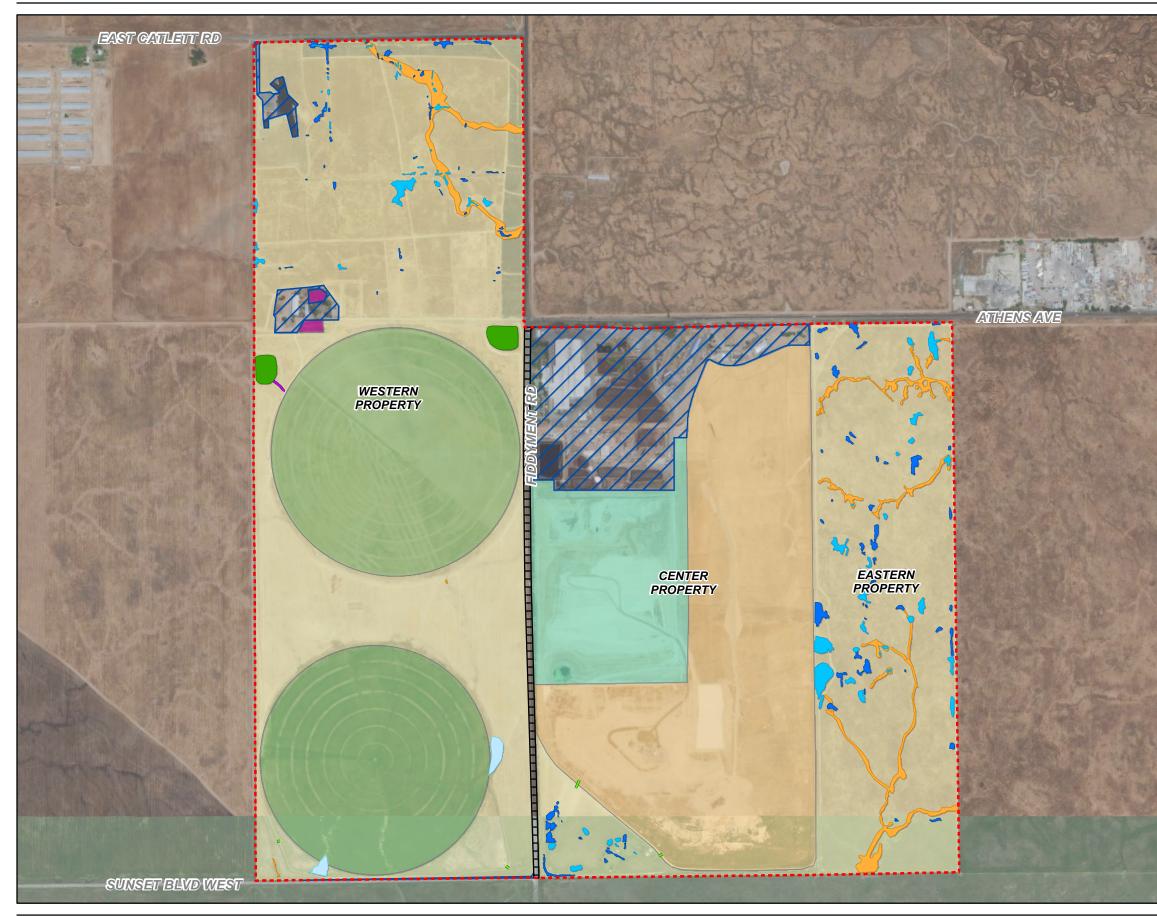
The center property includes the Western Regional Sanitary Landfill (WRSL) and associated solid waste infrastructure. The southwestern corner of the center property is a small area dominated by non-native grassland with constructed mitigation wetlands (vernal pools) scattered throughout. A few elderberry shrubs (*Sambucus nigra*), the host plant for the federally listed valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), are present in this part of the center property.

The eastern property is undeveloped land characterized by a mosaic of seasonal wetlands (including vernal pools) and swales. A few mature trees are located along the eastern property boundary adjacent to the WRSL. A motocross track, covering approximately 16 acres of the central part of the eastern property, was in operation for a few years starting in 2006 but has been inactive for many years. The eastern property is currently used for seasonal cattle grazing.

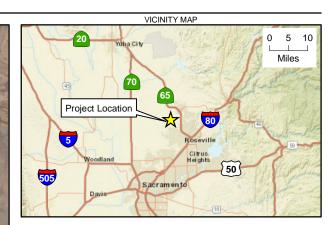
Descriptions of the terrestrial and aquatic land cover types and land use within the proposed project area are provided in the following sections and presented in Table 7-1 and on Figure 7-2. Aquatic land cover types mapped within the 250-foot proposed project area buffer are presented on Figure 7-3.

Land Cover Type	Center Property (acres)	Western Property (acres)	Eastern Property (acres)	Total (acres)
Terrestrial Land Cover Types				
Developed	58.3	7.0	0	65.3
Western Regional Sanitary Landfill	-	-	-	-
Vegetated Landfill Cover	168.8	0	0	168.8
Bare Ground	62.7	0	0	62.7
Non-native Annual Grassland	20.1	259.4	147.0	426.5
Eucalyptus Woodland	0	1.0	0	1.0
Agricultural	0	181.5	0	181.5
Aquatic Land Cover Types				
Vernal Pools	0.3	1.3	3.3	4.9
Non-Vernal Pool Seasonal Wetlands	0.6	0.9	2.1	3.6
Swales	0	4.5	6.2	10.7
Irrigation Ponds	0	2.5	0	2.5
Irrigated Wetlands	0	1.0	0	1.0
Total				928.5

Table 7-1. Land Cover Types and Acreage within the Proposed Project Area



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- LEGEND Project Boundary (928.5 acres)
- Culvert
- Ditch

Fiddyment Road Right-of-Way

Aquatic Land Cover

Irrigated Wetland (1.0 acre)
Irrigation Pond (2.5 acres)
Seasonal Wetland (3.6 acres)
Swale (10.7 acres)
Vernal Pool (4.9 acres)

Terrestrial Land Cover

$^{\prime}$	Developed (65.3 acres)
	Agricultural (181.5 acres)
	Bare Ground (62.7 acres)
	Eucalyptus Woodland (1.0 acre)
	Non-native Annual Grassland (426.5 acres)
	Vegetated Landfill Cover (168.8 acres)

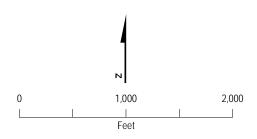
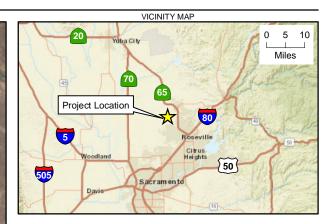


Figure 7-2. Land Cover Types Draft Environmental Impact Report Renewable Placer: Waste Action Plan Placer County, California





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LEGEND

Project Boundary (928.5 acres)

____ 250-foot Project Area Buffer

Aquatic Land Cover

Vernal Pool Type Seasonal Wetland (7.4 acres)

Onsite Vernal Pool Immediate Watershed (55 acres) Offsite Vernal Pool Immediate Watershed (189 acres)

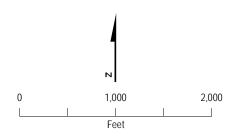


Figure 7-3. Offsite Aquatic Resources Draft Environmental Impact Report Renewable Placer: Waste Action Plan Placer County, California



Terrestrial Land Cover Types

Terrestrial land cover types in the proposed project area include developed areas, the WRSL, non-native annual grassland, eucalyptus woodland, and agricultural areas (Table 7-1 and Figure 7-2).

Developed.

Besides paved roadways, most of the developed land cover occurs in the center property, associated with the existing Western Placer Waste Management Authority (WPWMA) facilities. Much of this area is hardscaped with buildings, parking lots, and other infrastructure. Some small areas of landscaped and ruderal vegetation occur throughout the facility. The compost areas east and south of the MRF building are also considered developed land cover types. Small developed areas on the western property include a parking lot and a radio-controlled model airplane runway in the northwestern corner and a farm residence toward the center of the property.

Developed areas may be used by birds and small mammals commonly associated with landscaped trees, shrubs, or human-made structures. Waterfowl may use the constructed retention pond in the compost area, when full, as stopover habitat during migration.

Western Regional Sanitary Landfill.

Although the WRSL within the center property is technically a constructed land cover type, it provides different habitat functions from the developed land cover described previously. The WRSL includes areas where the surface soil is approximately 1 to 3 feet deep, and where herbaceous vegetation is in various stages of establishment. Vegetated landfill areas were not included in the field surveys but appear to be dominated by non-native annual grassland (see the description of non-native annual grassland that follows). The WRSL also includes areas of bare ground where earthwork and related activities are ongoing.

Non-native Annual Grassland.

Non-native annual grassland, the most common and widespread plant community in the proposed project area, is characterized by naturalized (that is, introduced species that are now typical of the climax community) annual grasses, including medusahead (*Elymus caput-medusae*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), Italian ryegrass (*Festuca perennis*), annual fescue (*Festuca myuros*), slender oat (*Avena barbata*), and hare barley (*Hordeum murinum ssp. leporinum*). Common naturalized forbs include longbeak stork's bill (*Erodium botrys*), rose clover (*Trifolium hirtum*), vetch (*Vicia sativa* and *V. villosa*), prickly lettuce (*Lactuca serriola*), and lesser hawkbit (*Leontodon saxatilis*). Scattered native forbs include white brodiaea (*Triteleia hyacinthina*), ookow (*Dichelostemma congestum*), and valley tassels (*Castilleja attenuata*). The grasslands found in the proposed project area include Wild Oat Grasslands - *Avena* (*barbata*, *fatua*) Semi-Natural Herbaceous Stands and Annual Brome Grasslands – *Bromus* (*diandrus*, *hordeaceus*) – *Brachypodium distachyon* Semi-Natural Herbaceous Stands, and *Lolium perenne* Semi-Natural Herbaceous Stands (perennial ryegrass fields), as described in *A Manual of California Vegetation* (Sawyer et al. 2009). Aquatic habitats, including vernal pools, seasonal wetlands, and swales, described in the next section, occur throughout annual grasslands.

Eucalyptus Woodland.

There are two relatively small groves of manna gum (*Eucalyptus viminalis*) composed of large, mature trees near the farm residence toward the center of the western property. These woodland areas are classified as *Eucalyptus* Semi-Natural Woodland Stands (Sawyer et al. 2009).

Agricultural.

Parts of the eastern and western properties support agricultural land uses. The land uses include irrigated alfalfa fields and grasslands that support wheat (*Triticum aestivum*) and non-native grass species such as wild oat, Italian ryegrass, and hood canary grass (*Phalaris paradoxa*) in the western property. The alfalfa fields and surrounding grassland are actively managed, cut in the spring for forage and hay, and constitute irrigated wetlands in some areas. Non-native annual grassland on the eastern property is seasonally grazed by cattle.

Aquatic Land Cover Types

Wetlands and other aquatic resources mapped in the proposed project area and 250-foot project area buffer include vernal pools, seasonal wetlands, swales, irrigation ponds, and irrigated wetlands (Tables 7-1 and 7-2). The distribution of aquatic resources and land cover types is shown on Figure 7-2 and 7-3.

Vernal Pool Complex.

As defined in the Sunset Area Plan (SAP), vernal pool complex is the term used to characterize land cover types or vernal pool constituent habitats that occur in such an integrated mosaic that they cannot be reliably distinguished or that are highly variable in extent (Placer County, 2019). Vernal pool complex overlaps with habitat (primarily non-native annual grassland) that is considered part of the vernal pool immediate watershed. The Placer County Conservation Program (PCCP) defines the vernal pool immediate watershed as the upland area surrounding, and hydrologically connected to, an individual delineated vernal pool complex constituent habitat (vernal pool, seasonal wetland, or swale). Unless demonstrated otherwise, the vernal pool immediate watershed is considered to extend outward from the wetted perimeter by a default distance of 250 feet (Placer County 2020a). The key constituent habitats for a vernal pool complex are three wetland types that provide vernal pool habitat functions: vernal pools, non-vernal pool seasonal wetlands, and seasonal swales. Together, these three wetland types are termed "vernal pool-type wetlands." Aquatic resources delineated within the 250-foot project area buffer are collectively characterized as vernal pool-type wetlands, since they could not be further differentiated during the desktop delineation. Aquatic resources in the 250-foot project area buffer are likely a mix of vernal pools, non-vernal pool seasonal wetlands, and seasonal swales, as described in the following sections.

Vernal Pools.

The biological characteristics of vernal pools are determined by a combination of specific climatic, soil, hydrologic, and topographic conditions. Endemic vernal pool species evolved in and are adapted to carry out their entire lifecycle in vernal pool wetlands. Vernal pool wetlands within the proposed project area include natural depressional basins, constructed mitigation pools (southwestern corner of the center property), as well as some areas associated with compacted roads that were characterized by similar vegetation. Vernal pools range from small, relatively shallow depressions to large basins deep enough to remain inundated until later in the summer. Vegetation around the outer edges of vernal pool basins is typically characterized by naturalized species such as Mediterranean barley, Italian ryegrass, lesser hawkbit, and hyssop loosestrife. The central and deeper areas of vernal pool basins are characterized by native species such as vernal pool buttercup (*Ranunculus bonariensis*), popcorn flower (*Plagiobothrys* spp.), goldfields (*Lasthenia* spp.), downingia (*Downingia* spp.), woolly marbles (*Psilocarphus brevissimus*), coyote thistle (*Eryngium castrense*), toad rush (*Juncus bufonius*), and creeping spikerush (*Eleocharis macrostachya*).

Non-Vernal Pool Seasonal Wetlands.

Non-vernal pool seasonal wetlands include small, relatively shallow natural depressional basins and areas along compacted roadways that are seasonally inundated, and other created depressions that have developed wetland characteristics. Unlike vernal pools, non-vernal pool seasonal wetlands are characterized almost entirely by non-native vegetation such as Italian ryegrass, Mediterranean barley, hyssop loosestrife, curly dock, and lesser hawkbit. On occasion, vernal pool buttercup is present in deeper parts of these features, but other native vernal pool plants are absent.

Swales.

Swale wetlands were mostly observed as weakly expressed topographic features that were evident to various degrees in the field. Swale complexes that occur in the eastern and western properties are linear, topographic depressions that appear to convey surface water for short durations in response to heavy rainfall. In some instances, these swales either contain vernal pools and seasonal wetlands or convey surface water into or out of these features. Vegetation throughout the swales includes lesser hawkbit, Mediterranean barley, Italian ryegrass, and toad rush. An exception includes deeper swales leading to the culverts at Fiddyment Road and East Catlett Road. Notable scouring near the northern culvert in the western property at East Catlett Road and aerial imagery of the site (Google Earth 2021) suggest that water at least occasionally flows through this swale.

Ponds.

The two constructed ponds in the western property on the northern side of the irrigated alfalfa fields are used to hold irrigation water and appear to dry later in the season after the fields have been harvested. Vegetation around the water's edge at the time of the survey included Italian ryegrass, Mediterranean barley, hyssop loosestrife, smooth goldfields, popcorn flower, creeping spikerush, and water pygmy weed (*Crassula aquatica*).

Irrigated Wetlands.

Irrigated wetlands in the western property appear to have developed as the result of long-term alfalfa cultivation. The irrigated wetland in the southwestern corner of the property is characterized by creeping spikerush, vernal pool buttercup, manna grass (*Glyceria x occidentalis*), and Italian ryegrass. There is also an irrigated wetland on the eastern side of the southern alfalfa field, where vegetation includes manna grass, Italian ryegrass, Mediterranean barley, tall nutsedge (*Cyperus eragrostis*), hyssop loosestrife, annual blue grass (*Poa annua*), with some popcorn flower and annual hair grass (*Deschampsia danthonioides*).

Several small, excavated drainages occur in the proposed project area, but their acreage is nominal.

7.1.6 Special-Status Plant and Wildlife Species

The potential for special-status species to occur in or adjacent to the proposed project area was evaluated according to the following criteria:

- Present Reconnaissance-level or focused surveys documented the occurrence or observation of a species in the survey area.
- Seasonally present Individuals were observed in the survey area but are only present in the area during certain times of the year.

- Likely to occur The species has a strong likelihood to be found in the survey area prior to or during construction but has not been directly observed to date during project surveys. The likelihood that a species may occur is based on the following considerations:
 - Suitable habitat that meets the life history requirements of the species is present on or near the survey area.
 - Migration routes or corridors are near or within the survey area.
 - Records of sighting are documented on or near the survey area.
 - There is an absence of invasive predators.

The main assumption is that records of occurrence have been documented within or near the survey area, the survey area falls within the range of the species, suitable habitat is present, but it is undetermined whether the habitat is currently occupied.

- Potential to occur There is a possibility that the species can be found in the survey area prior to or during construction but has not been directly observed to date. The likelihood that a species may occur is based on the following conditions:
 - Suitable habitat that meets the life history requirements of the species is present on or near the survey area
 - Migration routes or corridors are near or within the survey area.
 - There is an absence of invasive predators.

The main assumption is that the survey area falls within the range of the species, suitable habitat is present, but no records of sighting are located in or near the survey area and it is undetermined whether the habitat is currently occupied.

- Unlikely to occur The species is not likely to occur in the survey area based on the following considerations:
 - There is a lack of suitable habitat and features that are required to satisfy the life history requirements of the species (for example, absence of foraging habitat, lack of reproductive areas, and lack of sheltering areas).
 - Presence of barriers to migration or dispersal exists.
 - Presence of predators or invasive species that inhibit survival or occupation occurs.
 - There is a lack of hibernacula, hibernation areas, or estivation areas onsite.
- Absent Suitable habitat does not exist in the survey area, the species is restricted to or known to be
 present only within a specific area outside of the survey area, or focused surveys did not detect the
 species.

Special-Status Plants.

Table 7-2 lists the special-status plant species known to occur in the vicinity (within 5 miles) of the proposed project, and Figure 7-1a shows the CNDDB records of special-status plants within the 5-mile radius of the proposed project.

Special-Status Wildlife.

Table 7-3 lists the special-status animal species known to occur in the vicinity (within 5 miles) of the proposed project, and Figure 7-1b shows the CNDDB records of special-status animals within a 5-mile radius of the proposed project.

			Sta	itus	-			
Scientific Name	Common Name	Federal State CDFW CNPS		CNPS	Habitat Requirements	Potential for Occurrence		
Balsamorhiza macrolepis	Big scale balsamroot	-	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, often on serpentinite soils; 295 to 4,600 feet elevation; blooms March–June.	Unlikely to Occur. Suitable habitat (grassland) is present in the proposed project area, though the project is below the expected elevation range for the species. Although not restricted to serpentine soils, the lack of these soils makes the species unlikely to occur. There are two CNDDB occurrences within 5 miles of the project, though both are unverified, historical occurrences. The species was not found during floristic surveys.	
Brodiaea rosea ssp. vallicola	Valley brodiaea	-	-	-	4.2	Valley and foothill grassland (swales), vernal pools. Old alluvial terraces. Silty, sandy, and gravelly loam; 33 to 1,100 feet elevation; blooms April–May.	Unlikely to Occur. Suitable habitat (grasslands, swales, vernal pools) is present within the proposed project area. However, there are no CNDDB occurrences within Placer County, and the species was not found during floristic surveys.	
Chloropyron molle ssp. hispidum	Hispid bird's- beak	-	-	-	1B.1	Alkaline meadows and seeps, in playas and valley and foothill grassland below 500 feet elevation; blooms June–September.	Absent. There is no suitable meadow or seep habitat in proposed project area. The species was not found during floristic surveys.	
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	-	-	-	4.2	Often found in roadcuts. Found in chaparral, cismontane woodland, and lower montane coniferous forest; 246 to 3,000 feet elevation; blooms May–July.	Absent. No suitable chaparral, woodland, or lower montane forest habitat is present in the proposed project area. The species was not found during floristic surveys.	
Downingia pusilla	Dwarf downingia	-	-	-	2.2	Found in vernal pools or seasonal wetland valley and grassland habitats; below 1,500 feet in elevation; blooms March–May.	Present. Suitable habitat is present in proposed area. A population of the species, with several hundred plants, was observed on the eastern property in vernal pool habitat during floristic surveys.	

			Sta	tus			
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Fritillaria agrestis	Stinkbells	-	-	-	4.2	Grows in heavy soils, particularly clay, sometimes serpentinite. Prefers dry shade, such as under an oak canopy, chaparral, cismontane woodland, Pinyon and juniper woodland, valley and foothill grassland; 30 to 5,100 feet elevation; blooms March–June.	Absent. No suitable habitat is present in proposed area, which lacks heavy clay soils. Species was not found during floristic surveys.
Gratiola heterosepala	Boggs Lake hedge-hyssop	-	E	-	1B.2	Found in clay soils in or near shallow water, such as at the margins of lakes and vernal pools; grows in mud and very shallow water, such as the edges of vernal pools; 10 to 7,900 feet elevation; blooms April–August.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area. There are two CNDDB occurrences within 5 miles of the project, with species associations known to occur within the proposed project area (<i>Plagiobothrys stipitatus</i> , <i>Downingia bocomuta</i> , <i>Lasthenia fremontii</i> , <i>Downingia pusilla</i>). However, the species was not found during floristic surveys.
Juncus leiospermus var. ahartii	Ahart's dwarf rush	-	-	-	1B.2	Vernal pools and swales in areas of low cover of competing vegetation; most often on gopher turnings along margins of pools (Witham 2006). Soils underlying the pools typically are acidic clays; 95 to 750 feet elevation; blooms March–May.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area; however, the proposed project area lacks acidic soils. One CNDDB occurrence is within 5 miles of the project, in an area that has since been developed into a residential subdivision. Species was not found during floristic surveys.
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	-	-	-	1B.1	Vernal pools, meadows and seeps, and other seasonally wet habitats; 115 to 3,500 feet elevation; blooms March– May.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area. One CNDDB occurrence from 1982 is within 5 miles of the project; however, researchers believe the occurrence may be a misidentification. Species was not found during floristic surveys.

			Sta	itus			
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Legenere limosa	Legenere	-	-	-	1B.1	Relatively deep and wet vernal pools (Witham 2006); below 3,000 feet elevation; blooms April–June.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area, and the species was observed during 2013 surveys conducted in support of the proposed Antonio Mountain Ranch mitigation bank site, north of and across Athens Avenue from the eastern property (Placer County 2017). However, species was not found during floristic surveys.
Leptosiphon acicularis	Bristly leptosiphon	-	-	-	4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; 180 to 4,921 feet elevation; blooms April–July.	Unlikely to Occur. Suitable grassland habitat is present within the proposed project area. However, there are no CNDDB occurrences within Placer County, and the species was not found during floristic surveys.
Navarretia myersii ssp. myersii	Pincushion navarretia	-	-	-	1B.1	Vernal pools. Often found in acidic soils; 65 to 750 feet elevation; blooms in May.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area. One unverified historical CNDDB occurrence is within 5 miles of the project. Species was not found during floristic surveys.
Navarretia nigelliformis ssp. nigelliformis	Adobe navarretia	-	-	-	4.2	Heavy clay soils of vernal pools and other low, seasonally moist areas in grasslands. Sometimes on serpentine soils. Sierra Nevada foothills, the Central Valley, and the inner South Coast Ranges, between 325 and 3,300 feet elevation; blooms April–June.	Absent. No suitable habitat is present in the proposed project area. The proposed project area lacks heavy clay soils and is outside the species' known elevational range. Species was not found during floristic surveys.
Orcuttia viscida	Sacramento Orcutt grass	E	E	-	1B.1	Endemic to Sacramento County, California, where it grows only in vernal pools; 95 to 325 feet elevation; blooms April–July.	Absent. Suitable vernal pool habitat is present in the proposed project area; however, the project is outside the known range for the species (Sacramento County). Species was not observed during floristic surveys.

			Sta	itus	-		
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Sagittaria sanfordii	Sanford's arrowhead	-	-	-	1B.2	Occurs from the coast to Central California within wetlands, canals, and slow-moving freshwater waterways. Aquatic perennial; below 2,200 feet elevation; blooms May–October.	Absent. No suitable habitat is present in proposed project area, and species was not observed during floristic surveys.

Notes:

Status Codes:

Federal Designations: (E) Federally listed as endangered, (T) Federally listed as threatened, (C) Candidate for listing, (D) Delisted

State Designations: (E) State listed as endangered, (T) State listed as threatened, (R) State listed as rare

CNPS California Rare Plant Rank:

(1A) Presumed extinct in California; (1B) Rare, threatened, or endangered in California and elsewhere; (2) Rare, threatened, or endangered in California, but more common elsewhere; (3) More information is needed; (4) Limited distribution, watch list

Threat Ranks:

- 0.1 Seriously threatened in California (more than 80% of occurrences threatened, or high degree and immediacy of threat)
- 0.2 Fairly threatened in California (20% to 80% occurrences threatened, or moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened, or low degree and immediacy of threat or no current threats known)

			Sta	atus					
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence		
Branchinecta conservatio	Conservancy fairy shrimp	E	-	-	-	Inhabit rather large, moderately turbid cool-water vernal pools that fill with water in the rainy season, then slowly dry up from their outer, more shallow edges, to their deeper areas in the center.	Unlikely to Occur. Suitable vernal pool habitat is present in the proposed project area; however, the species' known range does not include Placer County or the Southeastern Sacramento Valley Vernal Pool Region. The species is known from a few isolated populations in the Vina Plains area of Tehama and Butte counties, the Jepson Prairie area in Solano County, the Yolo Basin Wildlife Area in Yolo County, the Sacramento National Wildlife Refuge in Glenn County, and from Merced County and Ventura County (USFWS 2005). One CNDDB occurrence is located about 5 miles from the project, on the Mariner Conservation Bank property.		
Branchinecta lynchi	Vernal pool fairy shrimp	Т	-	-	-	Endemic to the grasslands of Central Valley Coast Mountains and South Coast mountains, in rain-filled pools.	Likely to Occur. Suitable vernal pool habitat is present in the proposed project area. There are numerous CNDDB records of this species in vernal pool habitat surrounding the proposed project area, including one occurrence within the proposed project area.		
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	Т	-	-	-	Occurs only in the Central Valley of California, in association with blue elderberry (Sambucus nigra).	Potential to Occur . Suitable habitat is present in the proposed project area. Several mature elderberry shrubs were observed in the southwestern part of the		

		Status					
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
							center property, in an area that is thought to have functioned as a landfill mitigation bank. No evidence of valley elderberry longhorn beetle use observed (i.e., no exit holes).
Lepidurus packardi	Vernal pool tadpole shrimp	E	-	-	-	Marshes and swamps (freshwater). Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	Potential to Occur . Suitable vernal pool habitat is present in the proposed project area. Three CNDDB occurrences are within 5 miles of the project, with observations as recent as 2013.
Amphibians/Reptiles							
Rana draytonii	California red-legged frog	Т	-	SSC	-	Typically, a pond frog, found in or near water, but can wander overland at times, sometimes found in damp places far from water, including cool and moist bushes and thickets. Found active all year except in wetlands that dry out in summer, where frogs will estivate in moist refuges until the late fall rains.	Unlikely to Occur . While suitable habitat is present in the proposed project area, the species' known range is outside the proposed project area, and there are no CNDDB occurrences within 5 miles of the project.
Spea hammondii	Western spadefoot	-	-	SSC	-	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands; vernal pools are essential for breeding and egg-laying.	Likely to Occur . Suitable habitat is present in the proposed project area. There are several CNDDB occurrences within 5 miles of the project, including a 2016 record at the northern extent of the western property, just south of East Catlett Road.

			Sta	atus			
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Thamnophis gigas	Giant garter snake	т	Т	-	-	California Central Valley, wetlands, rice fields, canals, and marshes.	Unlikely to Occur . There is no suitable aquatic habitat preferred by the species present in the proposed project area and no CNDDB records within 5 miles of the proposed project area.
Fish							
Hypomesus transpacificus	Delta smelt	Т	E	-	-	Endemic to the upper Sacramento-San Joaquin Estuary of California, it mainly inhabits the freshwater-saltwater mixing zone of the estuary, except during its spawning season, when it migrates upstream to freshwater following winter "first flush" flow events.	Absent . No suitable habitat present in the proposed project area; therefore, this species is presumed absent.
Oncorhynchus mykiss irideus	Steelhead trout - Central Valley distinct population segment	Т	-	SSC	-	Adult summer steelhead enter their natal rivers in the spring or summer and hold there until winter or spring when they spawn. Most adult steelhead enter the river in the fall or winter and spawn in early winter or spring.	Absent . No suitable habitat present in the proposed project area; therefore, this species is presumed absent.
Birds							
Agelaius tricolor	Tricolored blackbird	-	-	SSC	-	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of colony.	Present . Suitable foraging habitat is present in the proposed project area. Species was observed (flyovers) throughout the proposed project area during reconnaissance surveys.

			Sta	atus			
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Ammodramus savannarum	Grasshopper sparrow	-	_	SSC	-	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Open fields and prairie across southern Canada, the United States, Mexico, and Central America. They forage on the ground in vegetation, mainly eating insects, especially grasshoppers, and seeds.	Potential to Occur . Suitable grassland habitat is present.
Athene cunicularia	Burrowing owl	-	-	SSC	-	Open, dry annual, or perennial grasslands; deserts; and scrublands characterized by low-growing vegetation.	Potential to Occur . Suitable habitat is present in the proposed project area.
Buteo swainsoni	Swainson's hawk	-	Т	-	-	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural ranchlands.	Present . Suitable nesting habitat is found in the proposed project area. Nesting pair found in the northeast corner of the landfill, directly adjacent to the eastern property.
Circus cyaneus	Northern harrier	-	-	SSC	-	Prairie grasslands to fields and marshes. Their nests are concealed on the ground in grasses or wetland vegetation.	Present . Suitable nesting habitat is present in the proposed project area. Potential nest site observed on the eastern side of the landfill outside of, but directly adjacent to, the eastern property.

		Status					
Scientific Name	Common Name	Federal	State	CDFW	CNPS	Habitat Requirements	Potential for Occurrence
Elanus leucurus	White-tailed kite	_	_	CFP	-	Found in savannah, open woodlands, marshes, desert grassland, partially cleared lands, and cultivated fields.	Potential to Occur . Suitable habitat is present in the proposed project area.

Notes:

Status Codes:

Federal Designations: (E) Federally listed as endangered, (T) Federally listed as threatened, (C) Candidate for listing, (D) Delisted

State Designations: (E) State listed as endangered, (T) State listed as threatened, (R) State listed as rare

CDFW Designations: (SSC) Species of Special Concern, (CFP) Fully Protected Species, (WL) Watch List

7.2 Regulatory Setting

The regulatory setting of the proposed project area has been described previously in the SAP and PCCP EIRs (Placer County 2019: 2020a). The description of the regulatory setting in the proposed project area provided in this section has been adapted from these references.

7.2.1 Federal

Clean Water Act, Sections 401 and 404

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged and fill material to jurisdictional waters of the United States. The definition of waters of the United States under the CWA is codified in the Navigable Waters Protection Rule (85 FR 22250), which went into effect on June 22, 2020. Activities involving discharge of fill into waters of the United States are regulated by USACE through issuance of CWA Section 404 permits. No Section 404 permit is effective in the absence of state water quality certification pursuant to Section 401 of the CWA, issued by the Central Valley Regional Water Quality Control Board (RWQCB). Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must also obtain certification from the state in which the discharge would originate.

Western Placer County Aquatic Resources Program

The Western Placer County Aquatic Resources Program (CARP) was established as a component of PCCP (along with the Habitat Conservation Plan/Natural Community Conservation Plan [HCP/NCCP or the Plan]) (Placer County 2020a). The CARP's role is to provide a structure for protecting aquatic resources in western Placer County while streamlining the environmental permitting process for impacts. The CARP protects aquatic resources by establishing avoidance, minimization, and mitigation requirements for projects with Covered Activities (such as the proposed project) that have the potential to affect such resources. The CARP provides a means to fulfill the requirements of federal, state, and local laws that protect aquatic resources, using the HCP/NCCP's comprehensive, long-term, regional conservation strategy. Under the CARP, projects must implement avoidance, minimization, and compensatory mitigation measures designed to protect aquatic resources. Site-specific avoidance and minimization measures are derived from the HCP/NCCP (Placer County 2020a). However, the CARP's requirements about these measures may be more specifically defined than those called for in the HCP/NCCP.

Along with the CARP and the HCP/NCCP, the PCCP also includes the Western Placer County In-Lieu Fee Program (ILF Program), under which compensatory mitigation requirements under Section 404 of the CWA can be fulfilled by payment of a fee. Credits can be allocated from the ILF Program based on the mitigation requirements established by the CARP and can be covered by the PCCP Program Development Fees paid for by the project applicant. The ILF Program uses fee revenues to fund the preservation, enhancement, restoration, creation, and management of aquatic resources. The ILF Program also can be used to compensate for impacts regulated under Sections 404 and 401 of the CWA and *Fish and Game Code* (FGC) Section 1600 et seq.

Federal Endangered Species Act

USFWS and National Marine Fisheries Service administer the FESA of 1973 and subsequent amendments. The FESA requires each agency to maintain lists of imperiled native species and affords substantial protections to these "listed" species. National Marine Fisheries Service jurisdiction under FESA is limited to the protection of marine mammals, marine fishes, and anadromous fishes; all other species are subject to USFWS jurisdiction.

Section 10

Section 10(a)(1)(B) of FESA involves the issuance of an incidental take permit for any nonfederal action that is reasonably certain to take an endangered or threatened species. FESA requires that applications for incidental take permits are accompanied by an HCP. The HCP describes how the take of individuals will be offset to the maximum extent practicable by providing for the conservation of the affected species through specific mitigation measures.

A joint HCP/NCCP (the State counterpart to the federal HCP) has been developed as a component of the PCCP to provide a framework that would satisfy the requirements of Section 10 of FESA. The HCP/NCCP includes measures to avoid and minimize take of covered species and provides compensatory mitigation for incidental take of covered species and loss of natural communities resulting from Covered Activities. The PCCP's goal 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. The proposed project is identified as a Covered Activity under the PCCP HCP/NCCP (Placer County 2020a).

Migratory Bird Treaty Act

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

A January 2020 proposed rule by USFWS clarifies that the scope of the MBTA only extends to conduct that intentionally injures birds. Conduct that results in the unintentional (incidental) injury or death of migratory birds is not prohibited under the act. This proposed rule would codify the 2017 Department of the Interior Solicitor's Office Opinion M–37050, which initially analyzed and limited the scope of the MBTA.

Executive Order 11990: Protection of Wetlands

Executive Order 11990, signed May 24, 1977, directs all federal agencies to refrain from assisting in, or giving financial support to, projects that encroach on publicly or privately owned wetlands. It further requires that federal agencies support a policy to minimize the destruction, loss, or degradation of wetlands. Such a project (that encroaches on wetlands) may not be undertaken unless the agency has determined that (1) there are no practicable alternatives to such construction, (2) the project includes all practicable measures to minimize harm to wetlands that would be affected by the project, and (3) the impact will be minor.

Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon

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

The recovery plan outlines recovery priorities and provides goals, objectives, strategies, and criteria for recovery. One of the overall objectives of the recovery plan is to promote natural ecosystem processes and

functions by protecting and conserving intact vernal pools and vernal pool complexes. Habitat protection under the recovery plan includes the protection of the topographic, geographic, and edaphic features that support hydrologically interconnected systems of vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes.

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

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

7.2.2 State

California Endangered Species Act

The CESA (FGC Sections 2050–2116) states that all native species or subspecies of a fish, amphibian, reptile, mammal, or plant and their habitats that are threatened with extinction and those experiencing a significant decline that, if not halted, would lead to a threatened or endangered designation will be protected or preserved.

Under Section 2081 of the FGC, a permit from CDFW is required for projects that could result in the take of a species that is state listed as threatened or endangered. *Take* is defined more narrowly under CESA than FESA. Under CESA, take of a species means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (FGC, Section 86). The state definition of take does not include harm or harass, whereas the definition of take under FESA does. As a result, the threshold for take under CESA is higher than that under FESA. For example, habitat modification is not necessarily considered take under CESA.

Natural Communities Conservation Planning Act

FGC Sections 2800–2835 detail the state's policies on the conservation, protection, restoration, and enhancement of the state's natural resources and ecosystems. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used as a tool to eliminate conflicts between the protection of natural resources and the need for growth and development. Additionally, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners, and as a mechanism for multispecies and multihabitat management and conservation. The development of NCCPs is an alternative to obtaining take authorization under Section 2081 of the FGC.

The joint HCP/NCCP has been developed as a component of the PCCP. The HCP/NCCP is intended to protect fish and wildlife and their habitats and fulfill the requirements of FESA and the California Natural Community and Conservation Planning Act (NCCP Act).

California Native Plant Protection Act

FGC Sections 1900–1913 codify the Native Plant Protection Act of 1977 (NPPA), which is intended to preserve, protect, and enhance endangered or rare native plants in the state. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from

one or more causes. A species is rare when, although not threatened with immediate extinction, it exists in such small numbers throughout its range that it may become endangered if its present environment worsens. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and the act protected endangered and rare plants from take. According to CDFW, a CESA Section 2081 permit for incidental take of listed threatened and endangered plants from all activities is required, except for activities specifically authorized by the NPPA.

California Fish and Game Code, Section 1600 (Lake and Streambed Alteration)

Sections 1600–1603 of the FGC state that it is unlawful for any person or agency to substantially divert or obstruct the natural flow, or substantially change the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources, or to use any material from the streambeds, without first notifying CDFW. A Lake and Streambed Alteration Agreement must be obtained if effects are expected to occur. A stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks, and that supports wildlife, fish, or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

California Fish and Game Code—Various Sections

The FGC provides protection from take for a variety of species. Section 5050 prohibits take of fully protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) are protected under Sections 3503.5 and 3513, birds of prey are protected under Section 3503.5, and fully protected birds are listed under Section 3511. Migratory nongame birds are protected under Section 3800. Fully protected mammals are listed under Section 4700. The FGC defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Except for take related to scientific research, all take of fully protected species is prohibited. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock, or if an NCCP has been adopted.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Act (Porter-Cologne Act) definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether USACE has concurrent jurisdiction under CWA Section 404 and defines discharges to receiving waters more broadly than CWA does.

Waters of the state fall under the jurisdiction of the nine RWQCBs. The project site is wholly under the jurisdiction of the Central Valley RWQCB. Under this act, each RWQCB must prepare and periodically update water quality control basin plans. The basin plan that is in place for the project site is the Sacramento River Basin and San Joaquin River Basin Water Quality Control Plan. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution. *California Water Code* Section 13260 requires any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements) with the applicable RWQCB. *California Water Code* Section 13050 authorizes the State Water Resources Control Board and the affiliated RWQCB to regulate biological pollutants. Aquatic invasive plants discharged to receiving waters are an example of

this kind of pollutant. Construction activities associated with the plan concepts that may discharge wastes into the waters of the state must meet the discharge control requirements of the Porter-Cologne Act.

California Wetlands Conservation Policy

The goals of the California Wetlands Conservation Policy, adopted in 1993 (Executive Order W-59-93), are "to ensure no overall net loss, and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California, in a manner that fosters creativity, stewardship, and respect for private property"; to reduce procedural complexity in the administration of state and federal wetlands conservation programs; and to make restoration, landowner incentive programs, and cooperative planning efforts the primary focus of wetlands conservation.

7.2.3 Local

The WPWMA is a Joint Powers Authority (JPA) composed of Placer County and the cities of Lincoln, Rocklin, and Roseville to own and operate a regional recycling facility and sanitary landfill. As a JPA, the WPWMA considers local regulations and consults with local agencies, but the County and city regulations are not applicable, because the County and cities do not have jurisdiction over the proposed project. Accordingly, the following discussion of local goals and policies associated with biological resources is provided for informational purposes only.

Placer County General Plan

The relevant goals and policies from the Placer County General Plan that pertain to biological resources are presented in this section (Placer County 2013). Although the WPWMA is an independent government agency that is not required to comply with the County's policies, the WPWMA intends to implement a proposed project that is generally consistent with these policies.

Wetland and Riparian Areas.

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

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

- Policy 6.B.4: The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.
- Policy 6.B.5: The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project,
 (a) onsite mitigation shall be preferred to offsite, 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 [the California Environmental Quality Act].

Fish and Wildlife Habitat.

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

- Policy 6.C.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:
 - a) Wetland areas, including vernal pools
 - b) Stream zones
 - c) Any habitat for special status, threatened, or endangered animals or plants
 - d) Critical deer winter ranges (winter and summer), migratory routes, and fawning habitat
 - e) Large areas of nonfragmented natural habitat, including blue oak woodlands, valley foothill and montane riparian, valley oak woodlands, annual grasslands, and vernal pool or grassland complexes
 - f) Identifiable wildlife movement zones, including nonfragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway, among others
 - g) 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.5: The County shall require mitigation for development projects where isolated segments of stream habitat are unavoidably altered. Such impacts should be mitigated onsite with in-kind habitat replacement or elsewhere in the stream system through stream or riparian habitat restoration work where it is clear that offsite replacement provides greater functions and values than onsite replacement.

- Policy 6.C.6. The County shall support preservation of the habitats of threatened, endangered, and/or other special status species. Where County acquisition and maintenance is not practicable or feasible, federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.
- Policy 6.C.7: The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.
- Policy 6.C.9: The County shall require new private or public developments to preserve and enhance existing riparian habitat unless public safety concerns require removal of habitat for flood control or other essential public purposes. 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 system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site-specific system.
- Policy 6.C.11: Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a wildlife biologist. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of special status, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources and will identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible. In approving any such discretionary development permit, the decision-making body shall determine the feasibility of the identified mitigation measures. Significant ecological resource areas shall, at a minimum, include the following:
 - a) Wetland areas, including vernal pools
 - b) Stream zones
 - c) Any habitat for special status, threatened, or endangered animals or plants
 - d) Critical deer winter ranges (winter and summer), migratory routes, and fawning habitat
 - e) Large areas of non-fragmented natural habitat, including blue oak woodlands, valley foothill and montane riparian, valley oak woodlands, annual grasslands, and vernal pool/grassland complexes habitat
 - f) Identifiable wildlife movement zones, including but not limited to, nonfragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway. Important spawning and rearing areas for anadromous fish.

Vegetation.

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

 Policy 6.D.2: The County shall require developers to use native and compatible nonnative species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits or for project mitigation.

- Policy 6.D.3: The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.
- Policy 6.D.4: The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.
- Policy 6.D.5: The County shall establish procedures for identifying and preserving special-status, threatened, and endangered plant species that may be adversely affected by public or private development projects.
- Policy 6.D.6: The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.
- Policy 6.D.7: The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.
- Policy 6.D.8: The County shall require that new development preserve natural woodlands to the maximum extent possible.
- Policy 6.D.10: The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.
- Policy 6.D.11: The County shall support the continued use of prescribed burning, mastication, chipping, and other methods to mimic the effects of natural fires to reduce fuel loads and associated fire hazard to human residents and to enhance the health of biotic communities.
- Policy 6.D.12: The County shall support the retention of vegetated corridors, consistent with Fire Safe Practices, along circulation routes in order to preserve their rural character.
- Policy 6.D.13: The County shall support the preservation of native trees and the use of native, drought-tolerant plant materials in all revegetation/landscaping projects.
- Policy 6.D.14: The County shall require that new development avoid ecologically fragile areas (e.g., areas of special status, threatened, or endangered species of plants, and riparian areas). Where feasible, these areas should be protected through public or private acquisition of fee title or conservation easements to ensure protection.

Sunset Area Plan.

The SAP includes goals and policies for protection of natural resources that are known to occur or may occur in the plan area. These policies are intended to complement the provisions of the PCCP and to supplement the goals and policies of the Placer County General Plan. The County would require, as conditions of approval, that applicants for future projects under the SAP implement these policies. As stated previously in relation to Placer County General Plan policies, the WPWMA is an independent government agency that is not required to comply with the SAP policies established by the County. However, the WPWMA intends to implement a proposed project that is generally consistent with these policies.

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, and maintenance and habitat restoration actions known as "Covered Activities." Within this framework, the PCCP would achieve a range of conservation goals, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of infrastructure needed to serve the County's growing population. The PCCP includes two separate but complementary plans or programs that support two sets of state and federal permits:

- The HCP/NCCP. The Plan is a joint HCP and NCCP that would protect fish and wildlife and their habitats and fulfill the requirements of FESA, CESA, and the NCCP Act.
- The CARP. The CARP would protect streams, wetlands, and other water resources and fulfill the requirements of the federal CWA (Section 404 and 401) and analogous state laws and regulations.

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

Conservation Strategy.

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

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

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

One of the key objectives of the PCCP is to shift programmatic regulatory responsibility from state and federal agencies to the local jurisdictions (Placer County and the City of Lincoln). The PCCP is also intended to provide for a better mitigation and conservation framework for impacts associated with

development. Once complete, the PCCP would allow the participating agencies to integrate regulatory actions associated with endangered species and wetlands with their local entitlement processing. Lastly, the PCCP would help meet the County's conservation goals expressed by the General Plan and the Placer Legacy program, by developing a large, interconnected, managed, and monitored reserve area that would provide open space and agricultural conservation in perpetuity.

In March 2014, the County notified the WPWMA that the draft PCCP identified Solid Waste Operation and Maintenance as a Covered Activity and invited the WPWMA to become a Participating Special Entity in the PCCP. In May 2014, the WPWMA notified the County of its intent to participate in the PCCP as a Participating Special Entity.

7.3 Impact Analysis and Mitigation Measures

7.3.1 Thresholds of Significance

The thresholds of significance for assessing the impacts to biological resources come from the CEQA Environmental Checklist. For biological resources, the CEQA Checklist asks if the proposed project would

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS?
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?
- Have a substantial adverse effect on federally protected wetlands (including marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means?
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites?
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

7.3.2 Methodology

Implementation of the proposed plan concepts could result in direct, indirect, and cumulative impacts on biological resources. *Direct impacts* are those effects of a project that occur at the same time and place as project implementation, such as removal of habitat through ground disturbance. *Indirect impacts* are those effects that occur either removed by time or by distance from project activities, but are reasonably foreseeable, such as downstream loss of aquatic species because of erosion impacts on water quality. Direct and indirect impacts can be permanent or temporary. *Cumulative impacts* are those incremental effects of a project that, even if less than significant themselves, could, in combination with the effects of other projects, significantly affect biological resources.

Potential impacts on biological resources were evaluated by comparing the quantity and quality of habitats present in the proposed project area under baseline conditions, to anticipated conditions after implementation of the project activities. The methods used to evaluate permanent, temporary, and indirect effects on biological resources are largely similar to those used in the SAP EIR and more broadly, the PCCP HCP/NCCP analyses. Direct and indirect impacts on biological resources were assessed based on the potential

for the resources to be disturbed or enhanced by implementation of the proposed project. The impact analysis identifies the potential impacts of the project, including cumulative impacts, and identifies SAP EIR mitigation measures and PCCP conservation measures, when available, to reduce the level of impact.

7.3.3 Impacts and Mitigation Measures

IMPACT Impacts on Special-Status Plant Species. Implementation of the proposed project would result in direct removal and potentially indirect disturbance of dwarf downingia, a species with a California Rare Plant Rank of 2B.2, and potential habitat for other special-status plant species. Other special-status plant species may be present adjacent to the project site and could be indirectly affected by habitat removal or modification on the site. Impacts on special-status plant species would be significant.

Plan Concept 1

Two special-status plant species, dwarf downingia and legenere, have been documented within 5 miles of the proposed project. One of these, dwarf downingia, was determined to be present within the proposed project area. The remaining species listed in Table 7-2 (including legenere) are considered to be absent or unlikely to occur because the project site is outside of the species' documented range, suitable habitat is not present, or the species was not observed during seasonally appropriate floristic surveys. During the May 2017 floristic surveys, a population of dwarf downingia was observed in a large vernal pool located at the western edge of the eastern property. Several hundred plants were observed (Figure 7-4).

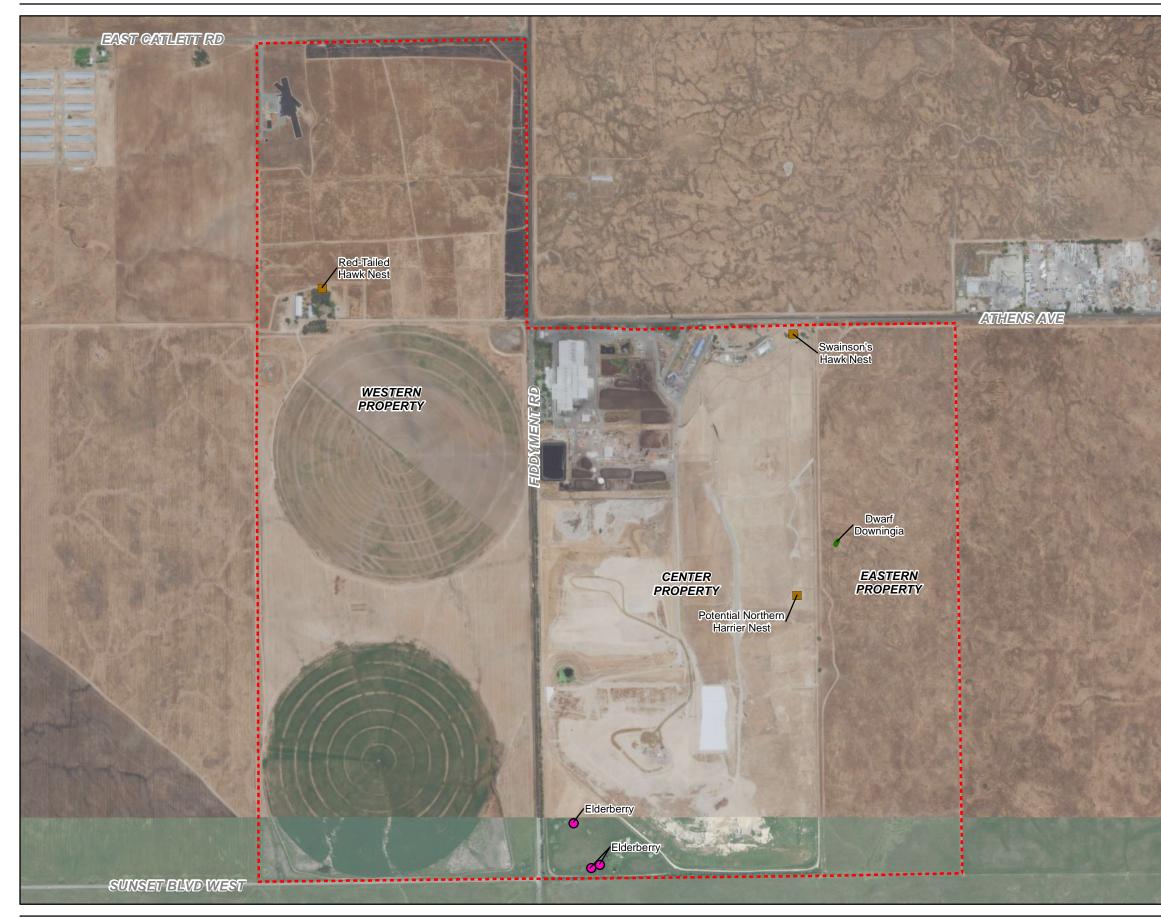
Implementation of Plan Concept 1 would result in direct permanent impacts on dwarf downingia and its habitat as a result of ground disturbance, vegetation clearing, and development of the eastern property. Populations of dwarf downingia or other special-status plant species that are adjacent to or hydrologically connected to the proposed project area could be indirectly affected. These indirect impacts could be caused by pollutants transported by storm water runoff and other means, airborne particulates, altered hydrology, habitat fragmentation, and the introduction of invasive species or noxious weeds. Indirect effects associated with habitat modification and fragmentation could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate, such that these populations eventually die out. Indirect effects on vernal pools (habitat for dwarf downingia) are generally considered to occur when ground-disturbing activities take place within 250 feet of a vernal pool—more specifically, when it can be demonstrated that the hydrology supporting a pool has been altered. Direct and indirect impacts on special-status plants.

Plan Concept 2

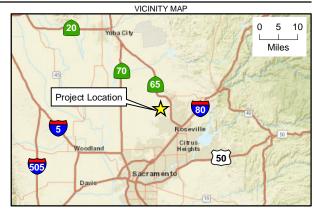
Similar to Plan Concept 1, Plan Concept 2 would result in significant impacts on special-status plants.

Mitigation Measure 7-1: Impacts on Special-Status Plant Species.

The WPWMA will implement the proposed project as a Covered Activity under the PCCP and CARP to compensate for any loss of special-status plants.



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LEGEND

- Project Boundary (928.5 acres)
- Elderberry Shrub (Host Plant for Valley Elderberry Longhorn Beetle) 0
- Sensitive Wildlife
- Sensitive Plant

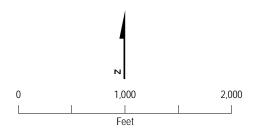


Figure 7-4. Special-Status Plants and Animals Draft Environmental Impact Report Renewable Placer: Waste Action Plan Placer County, California



Level of Significance after Mitigation.

The protection and restoration guided by the PCCP's goals, objectives, conservation measures, and conditions would compensate for the loss of special-status plant species, and preserved habitat would be managed in perpetuity, thereby reducing these effects to a **less-than-significant** level.

IMPACT Impacts on Vernal Pool Branchiopods and Western Spadefoot. Implementation of the proposed project would result in loss and degradation of habitat for special-status wildlife species that rely on vernal pool-type wetlands for at least a portion of their lifecycle. These species include federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp, as well as western spadefoot, a California species of special concern. Impacts on special-status vernal pool branchiopods and western spadefoot would be significant.

Plan Concept 1

Vernal pool complexes containing vernal pools, vernal pool-type wetlands, and the vernal pool immediate watershed provide habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot. Western spadefoot rely on seasonal wetland habitats for breeding and spend the remainder of their lifecycle estivating in surrounding upland habitats. Vernal pool branchiopods carry out their entire lifecycle in vernal pool-type wetlands. Seasonally ponded depressions throughout the proposed project area provide suitable habitat for vernal pool branchiopods and western spadefoot, though no focused or protocol-level surveys for these species have been performed. Numerous occurrences of vernal pool branchiopods and several occurrences of western spadefoot are documented within 5 miles of the proposed project area. The loss of vernal pool complex habitat could result in potential take of vernal pool fairy shrimp, vernal pool tadpole shrimp, or western spadefoot, and loss of habitat for these species.

The proposed project area is within the western Placer County core area identified in the vernal pool recovery plan (USFWS 2005) as an area that is important to the preservation and recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp, and to maintaining western spadefoot so that is does not become federally listed. The vernal pool recovery plan has a goal of preserving 85 percent of the existing vernal pool fairy shrimp habitat within the western Placer County core area, including both occupied and unoccupied suitable habitat, to recover the species. However, a large proportion of the western Placer County core area habitat has been, or is planned for, development, and some has been converted to agricultural uses, making it difficult to achieve the 85 percent preservation goal with anticipated development.

The proposed project would result in the conversion of approximately 19.2 acres of vernal pool-type wetlands (4.9 acres of vernal pool wetlands, 3.6 acres of non-vernal pool seasonal wetlands, and 10.7 acres of swales) to developed land use within the proposed project area (Figure 7-2). This constitutes approximately 27.9 percent of the 70 acres of vernal pool-type wetlands that would be converted in the net SAP area (Placer County 2019). Project impacts would be considered significant if vernal pool habitat within the proposed project area was determined to be, or assumed to be, occupied by special-status vernal pool branchiopods or western spadefoot. Impacts on occupied habitat may occur during grading or excavation for construction of Plan Concept 1.

In addition to the direct loss of vernal pool-type wetlands within the proposed project area, implementing Plan Concept 1 would have indirect effects on vernal pool-type wetlands outside of the proposed project area, as a result of direct impacts to the immediate watershed of those vernal pool-type wetlands. USFWS generally considers that vernal pool-type wetlands within 250 feet of lands that would be developed may

be subject to indirect effects unless site-specific analysis of terrain and hydrology demonstrate the immediate watershed is smaller than 250 feet around the wetland (USFWS 2005). Thus, vernal pool complex habitat on parcels that are outside, but adjacent to, the proposed project area could be indirectly affected by project implementation. Implementation of Plan Concept 1 may have indirect impacts on approximately 7.4 acres of vernal pool-type wetlands mapped outside of the proposed project area (within the 250-foot project area buffer) as a result of direct effects to the offsite wetlands' immediate watershed, where the watershed extends into the proposed project area (Figure 7-3).

Indirect effects, including reduction in water quality and altered hydrology caused by storm water runoff, erosion, and siltation; litter and dumping; and introduction of invasive plant species could result in habitat degradation leading to lower reproductive success of vernal pool branchiopods and western spadefoot outside the proposed project area, and a decline in numbers or eventual elimination of these species from the affected habitat. Additional indirect impacts on western spadefoot could include mortality related to an increase in vehicular traffic; noise and vibration disturbance causing toads to break dormancy; and exposure to herbicides, pesticides, and other toxins. The direct and indirect impacts on vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot would be significant.

The recovery plan acknowledges that alternative mechanisms such as HCPs may be deemed equivalent to implementation of the recovery plan if they contain necessary elements specified for meeting equivalency (USFWS 2005). If adopted, the PCCP HCP/NCCP has been drafted to balance project-related effects throughout the future growth area of western Placer County with the necessary recovery elements in cooperation with USFWS and other agencies.

Plan Concept 2

Plan Concept 2 would result in the same level of impacts on vernal pool branchiopods and western spadefoot as Plan Concept 1 because the same areas would be disturbed, although the timing of the disturbance may differ.

Mitigation Measure 7-2: Impacts on Vernal Pool Branchiopods and Western Spadefoot.

The WPWMA will implement the proposed project as a Covered Activity under the PCCP and CARP to compensate for loss of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat. Although western spadefoot is not covered under the PCCP, implementation of the PCCP would reduce impacts on western spadefoot because the species requires the protection of vernal pool complex habitat for survival, and this habitat would be protected for vernal pool fairy shrimp and vernal pool tadpole shrimp. The protection of vernal pool complex habitat, and vernal pool branchiopods and western spadefoot by proxy, would be supported by the following conditions from the PCCP (Placer County 2020c) (Appendix D):

- General Condition 1, Watershed Hydrology and Water Quality
- General Condition 3, Land Conversion
- General Condition 4, Temporary Effects
- General Condition 5, Conduct Worker Training
- Regional Public Projects Condition 3, Operations and Maintenance best management practices (BMPs)
- Species Condition 10, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Covered Activities will be assessed fees based on the parameters described in Chapter 9, Costs and Funding, and as summarized in Tables 9-6 and 9-7 of the PCCP HCP/NCCP (Placer County 2020a). Special habitat fees (Table 9-7 of the PCCP HCP/NCCP) are variable depending on the special habitat type and would be paid in addition to land conversion fees. In the Central Valley, the fees will be applied when projects affect natural, semi-natural, and other agricultural communities.

Level of Significance after Mitigation.

The proposed project would be implemented as a Covered Activity under the PCCP and CARP, and the project's special-status vernal pool branchiopods and western spadefoot impacts would be fully mitigated. Implementation of the PCCP is expected to reduce biological resource impacts to a much greater degree than would occur with project-by-project mitigation by developing a large, managed, and monitored reserve area that will provide vernal pool and associated habitat restoration, and open space and agricultural conservation in perpetuity, rather than smaller, more fragmented and isolated reserves surrounded by urban development. Additionally, its avoidance, minimization, and mitigation requirements also would support the reduction of potential indirect significant effects. The PCCP is specifically designed to support species recovery in addition to mitigating for direct and indirect species impacts. For these reasons, the project's impacts on special-status vernal pool branchiopods and western spadefoot would be reduced to **less than significant** with implementation of the PCCP and CARP.

IMPACT	Impacts on Valley Elderberry Longhorn Beetle. Implementation of the proposed
7-3	project could result in loss of elderberry shrubs, the host plant for the federally listed as
	threatened valley elderberry longhorn beetle and could result in take of this species.
	Impacts on valley elderberry longhorn beetle would be significant .

Plan Concept 1

Scattered elderberry shrubs occur in the southwestern corner of the center property. Implementation of Plan Concept 1 could result in the removal of elderberry shrubs that could potentially provide habitat for valley elderberry longhorn beetle and take of individual valley elderberry longhorn beetles could occur. Indirect impacts from ground-disturbing activities or use of herbicides near shrubs also could result in decline of elderberry shrubs. Direct removal of elderberry shrubs or disturbance that affects shrubs' health or survival would be considered a significant impact because of the effects on valley elderberry longhorn beetles.

Plan Concept 2

Similar to Plan Concept 1, Plan Concept 2 could result in significant impacts on valley elderberry longhorn beetle.

Mitigation Measure 7-3: Impacts on Valley Elderberry Longhorn Beetle.

Valley elderberry longhorn beetle is a Covered Species under the PCCP. Potential impacts on this species will be mitigated by implementing the PCCP conservation strategy. The PCCP conservation strategy includes survey and impact minimization and avoidance requirements for Covered Species, other conditions on Covered Activities to achieve conservation goals and objectives for Covered Species and natural communities, establishment of a habitat reserve system, and long-term conservation and management of habitats in the reserve system. The protection and restoration of valley elderberry longhorn beetle habitat within the proposed project area would be supported by the following conditions from the PCCP (Placer County 2020b) (Appendix D):

- General Condition 4, Temporary Effects
- General Condition 5, Conduct Worker Training
- Regional Public Projects Condition 3, Operations and Maintenance BMPs
- Species Condition 8, Valley Elderberry Longhorn Beetle

Level of Significance after Mitigation.

Implementation of the PCCP conservation strategy for valley elderberry longhorn beetle would reduce impacts on valley elderberry longhorn beetle to a **less-than-significant** level.

IMPACT	Impacts on Special-Status Bird Species, Including Raptors. Implementation of the
7-4	proposed project would result in direct removal or disturbance of habitat with potential
	to support burrowing owl, Swainson's hawk, northern harrier, white-tailed kite,
	tricolored blackbird, and grasshopper sparrow. Impacts on special-status bird species,
	including raptors, would be significant .

Plan Concept 1

Construction activities, such as ground disturbance and vegetation removal, and the conversion of suitable habitat to developed uses could result in the disturbance or loss of special-status bird species and reduced breeding productivity of these species. Special-status bird species are protected under FESA, CESA, FGC, CEQA, MBTA, or other regulations. Potential effects of project implementation on these species are detailed in the following sections.

Burrowing Owl.

Burrowing owl, a CDFW species of special concern, has been documented north of East Catlett Road across the road and north of the western property (CDFW 2021) and north of Athens Avenue in the Antonio Mountain Ranch mitigation bank site (Placer County 2017). The proposed project area contains suitable breeding and foraging habitat in annual grassland, vernal pool complexes, pasture, and agricultural lands, and in earthen berms along irrigation ditches and between agricultural fields. Based on the proximity to known occurrences, there is potential for the species to occur in the proposed project area. Development of Plan Concept 1 could result in destruction of active burrows or direct mortality of burrowing owls, if they are present. This would be a significant impact.

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

Swainson's hawk is listed as threatened under CESA. Northern harrier is a CDFW species of special concern, and white-tailed kite is listed as fully protected under the FGC. In the proposed project area, large, isolated trees (for example, cottonwoods and oaks) provide potentially suitable nest sites for Swainson's hawk and white-tailed kite, and annual grassland and vernal pool complex, pasture, and agricultural lands provide suitable foraging habitat for these three species, as well as potential nesting habitat for northern harrier in densely vegetated areas. During the 2017 surveys, Swainson's hawk and northern harrier were observed within the proposed project area. A pair of nesting Swainson's hawks was observed in a mature cottonwood tree (*Populus fremontii*) along Athens Avenue within the existing WPWMA facilities, directly adjacent to the eastern property. A northern harrier was observed exhibiting nest-tending and feeding behavior on the vegetated area of the WRSL. White-tailed kite were not observed during the 2017 surveys but are known to occur within 5 miles of the proposed project area (Figures 7-1a, 7-1b, and 7-4).

Construction activities associated with Plan Concept 1, such as ground disturbance, vegetation removal, construction vehicle activities, and the presence of construction crews, could disturb nesting Swainson's hawks, northern harriers, and white-tailed kites if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. Plan Concept 1 includes the conversion of approximately 426.5 acres of grassland plus additional potential foraging habitats (such as agricultural) for solid waste operations and other industrial uses. Conversion of these areas would result in the

permanent loss of suitable foraging habitat for Swainson's hawk. The potential loss of Swainson's hawk, white-tailed kite, and northern harrier nests, or the permanent loss of foraging habitat, would be a significant impact.

Tricolored Blackbird, Grasshopper Sparrow, and Other Bird Species Protected by the MBTA.

Potential, marginal nesting habitat for the tricolored blackbird, which is state listed as threatened, is present in vegetation along ditches and near areas of open water. Tricolored blackbird foraging habitat includes areas that support large insect populations (for example, field crops, including alfalfa, sunflower, rice; irrigated pastures; and lightly grazed grasslands), such as the agricultural areas in the western property. Tricolored blackbird nesting colonies have been documented within 5 miles of the proposed project area, and the species was observed flying through the proposed project area during the 2017 habitat surveys.

Grasshopper sparrow, a CDFW species of special concern, was determined to have potential to occur in the proposed project area, based on the presence of suitable habitat and documented occurrences nearby. Other passerine bird species protected by the MBTA may nest throughout the proposed project area in a range of habitat types, including trees, dense shrubs, grassland vegetation, and bare ground.

Activities associated with the construction of Plan Concept 1, such as ground disturbance and vegetation removal, could disturb nesting tricolored blackbird, grasshopper sparrow, and other MBTA-protected species, if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. This would be a significant impact.

Plan Concept 2

Similar to Plan Concept 1, Plan Concept 2 could result in significant impacts on special-status bird species, including raptors.

Mitigation Measure 7-4: Impacts on Special-Status Bird Species, Including Raptors.

Burrowing owl, Swainson's hawk, and tricolored blackbird are classified as Covered Species under the PCCP. Potential impacts on these species will be mitigated through implementation of the PCCP conservation strategy. The PCCP conservation strategy includes survey and impact minimization and avoidance requirements for Covered Species, other conditions on Covered Activities to achieve conservation goals and objectives for Covered Species and natural communities, establishment of a habitat reserve system, and long-term conservation and management of habitats in the reserve system. The protection and restoration of burrowing owl, Swainson's hawk, and tricolored blackbird within the proposed project area would be supported by the following conditions from the PCCP (Placer County 2020b) (Appendix D):

- General Condition 1, Watershed Hydrology and Water Quality
- General Condition 4, Temporary Effects
- General Condition 5, Conduct Worker Training
- Regional Public Projects Condition 3, Operation and Maintenance BMPs
- Species Condition 3, Western Burrowing Owl
- Species Condition 4, Tricolored Blackbird
- Species Condition 1, Swainson's Hawk

Level of Significance after Mitigation.

Implementation of the PCCP conservation strategy would mitigate the loss of individuals and nests of special-status bird species, including raptors. With implementation of the PCCP, the proposed project would not substantially affect the distribution, breeding productivity, viability, or regional population of these species. Therefore, potential impacts would be reduced to a **less-than-significant** level.

IMPACT Impacts on Wetlands or Other Sensitive Natural Communities. Implementation of the proposed project would result in the loss of jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal CWA. The proposed project also would result in the loss of a sensitive natural community. Impacts on wetlands and sensitive natural communities would be significant.

Plan Concept 1

Implementation of Plan Concept 1 would result in the direct loss of jurisdictional waters of the United States, including wetlands that may be subject to USACE jurisdiction under the federal CWA. Based on an aquatic resource delineation of the proposed project area, Plan Concept 1 is estimated to result in permanent, direct impacts to approximately 19.2 acres of vernal pool-type wetlands (4.9 acres of vernal pool wetlands, 3.6 acres of non-vernal pool seasonal wetlands, and 10.7 acres of swales), 1.0 acres of irrigated wetlands, and 2.5 acres of ponds throughout the proposed project area (Figure 7-2).

Vernal pools and vernal pool complex habitat within the proposed project area are considered sensitive natural communities by CDFW because of the rarity of the community in the state, and globally. Vernal pools within the proposed project area are representative of northern hardpan vernal pool habitat, which is the most common vernal pool habitat type in the Southeastern Sacramento Valley Vernal Pool Region, where they occur in complexes of many small pools and swales among mima mounds on soils of the Pentz-Pardee-Red Bluff, Redding-Corning, and San Joaquin series (USFWS 2007). Northern vernal pool hardpan habitat is considered a vulnerable community type at the global and state level and has been mapped by the CNDDB within 0.5 mile of the proposed project area (CDFW 2021).

CDFW also ranks specific vegetation alliances according to their degree of imperilment. The vernal pool communities observed within the proposed project area (which include species such as two-horned calicoflower [*Downingia bicornuta*], Fremont's goldfield [*Lasthenia fremontii*], and smooth goldfields [*Lasthenia glaberrima*]) indicate that these pools and associated complexes would be considered an imperiled community type at the global and state level (CDFW 2020).

It is assumed for purposes of this analysis that all wetlands within the proposed project area would be lost with implementation of Plan Concept 1. In addition to these direct losses, implementation of Plan Concept 1 would have indirect effects on approximately 7.4 acres of wetlands within the 250-foot project area buffer, as a result of direct effects to the offsite wetlands' immediate watershed, where the immediate watershed extends into the proposed project area (Figure 7-3b). Potential indirect effects include reduction in water quality caused by storm water runoff, erosion, and siltation; increased litter; noise and light pollution; alteration of the hydrologic regime through modification of surface flows or perched groundwater flows; intrusion of humans; and introduction or spread of invasive species that could result in habitat degradation.

The loss and degradation of vernal pool-type wetlands and other wetland habitats that would occur with implementation of Plan Concept 1 would result in substantial adverse effects on wetlands that are

potentially federally protected waters of the United States. Plan Concept 1 also would result in the loss of a sensitive natural community. Therefore, this impact would be significant.

Plan Concept 2

Plan Concept 2 would result in the same level of impacts on wetlands and sensitive natural communities as Plan Concept 1. This impact would be considered significant.

Mitigation Measure 7-5: Impacts on Wetlands or Other Sensitive Natural Communities.

The anticipated permanent impacts to wetlands would be offset through a watershed-based approach as described in the CARP (Placer County, 2020c). Both the HCP/NCCP and CARP require compensatory mitigation for wetland impacts to be implemented at 1.5:1 through payment into an ILF Program or purchase of mitigation credits at an agency-approved mitigation bank, or through land dedications in lieu of fee payments. Most of this mitigation would be achieved through the enhancement (rehabilitation) of wetlands and waters, and creation (establishment) or restoration (re-establishment) of 2,715 acres of constituent habitats that would be considered protected wetlands and waters (Placer County 2020c). Overall, the proposed wetland mitigation in the CARP would maintain or improve the functions and services of wetlands, including special aquatic sites, within the larger PCCP area.

The PCCP includes several objectives and conservation measures to prevent net loss of functions and services within the larger PCCP area. These objectives and measures would allow preserved, enhanced, and established and re-established wetlands and waters to maintain or improve the physical, chemical, and biological processes of wetlands in these landscapes, including nutrient cycling, vegetation structure, plant and animal diversity, habitat for rare or listed species, and habitat linkages and corridors. The services that these wetlands provide would include such benefits as flood control, groundwater recharge, and maintenance of water quality in receiving waters. The protection and restoration of protected wetlands and waters within the proposed project area would be supported by the following conditions from the PCCP (Placer County 2020b) (Appendix D):

- General Condition 1, Watershed Hydrology and Water Quality
- General Condition 3, Land Conversion
- General Condition 4, Temporary Effects
- Regional Public Project Condition 3, Operation and Maintenance BMPs

The CARP provides additional specific avoidance and minimization measures, summarized in Table 4.2 of that document (Placer County 2020c).

The PCCP objectives, conservation measures, and conditions establish performance standards for measuring the effectiveness of proposed conservation actions. The acres of protection and restoration and the commitment to ratios established in the CARP satisfy the typical mitigation that would be applied to the proposed project impacts, as well as mitigating the effects of the other conservation measures. The proposed conditions further demonstrate the intent to avoid and minimize effects and to maintain or improve wetland and water functions and services over the life of the PCCP.

Consistent with SAP Program NR-4, PCCP, and CARP, the project will delineate all aquatic resources, implement all feasible avoidance and minimization measures described in the PCCP and CARP, calculate the extent of impacts, and provide compensatory mitigation according to the procedures described in the PCCP and CARP through payment of applicable mitigation fees to the ILF Program or purchase of mitigation credits at an agency-approved mitigation bank. The PCCP may allow for consideration of land dedication in lieu of PCCP fees, subject to approval by the future Placer Conservation Authority and

concurrence by the state and federal agencies. The fees collected through the ILF Program will be used to fund land acquisition; mitigation projects that protect, enhance, and restore aquatic resources; and long-term management and monitoring in the PCCP Reserve Acquisition Areas.

Level of Significance after Mitigation.

Implementation of the PCCP conservation strategy would reduce impacts on wetlands and other sensitive natural communities. With implementation of the PCCP, the natural community creation, enhancement, restoration, and protection activities in the PCCP and mitigation commitments under the CARP, which includes a commitment to mitigate at a 1.5:1 for wetlands, are more than sufficient to support the conclusion that the impacts on wetlands would be reduced to **less than significant**. The permitting requirements of the USACE through the CWA would also require natural community creation, enhancement, restoration, and protection activities sufficient to prevent net loss of wetland resources.

IMPACT	Interference with Wildlife Movement Corridors. Implementation of the proposed
7-6	project would not significantly interfere with the movement of native resident wildlife
	species through the proposed project area. Impacts related to interference with wildlife
	movement corridors would be less than significant .

Plan Concept 1

Wildlife movement corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors, as these features can provide cover and access across a landscape. Movement corridors can include dispersal corridors between populations that allow genetic exchange within a metapopulation; corridors used for daily movements between areas that provide different habitat functions (for example, between areas that provide thermal cover and hiding cover and areas used for foraging and obtaining water); and migratory routes used for seasonal migrations between summer and winter ranges. There are no established migratory routes and no riparian corridors through the proposed project area that are vital for the movement of any resident or migratory fish or wildlife species or population. Implementation of Plan Concept 1 would not substantially interfere with the seasonal migration of any species. Therefore, this impact would be less than significant.

Plan Concept 2

Similar to Plan Concept 1, Plan Concept 2 would not substantially interfere with the seasonal migration of any species. Therefore, this impact would be less than significant.

IMPACT Conflicts with Local Ordinances. Implementation of the proposed project would result in development in areas containing trees protected under the County Tree Ordinance. Project implementation would result in the removal or degradation of these resources and could conflict with the County Tree Ordinance. Impacts on trees protected under the County Tree Ordinance would be significant.

Plan Concept 1

The proposed project site has limited areas with landscape or non-native trees, including within the center property and near the farm residence on the western property. Although very few trees are located on the site, some of them may be protected under the County Tree Ordinance. Indirect impacts from ground-

disturbing activities within drip lines of protected trees could result if the health of the tree is adversely affected, leading to eventual tree mortality. Under Plan Concept 1, WPWMA has not identified a specific proposed project component that would require immediate removal of trees, but the project assumes that removal could occur in the future. WPWMA would minimize tree removal where possible, but for this analysis, WPWMA has taken a conservative approach and assumes tree damage or removal could conflict with the County Tree Ordinance. This impact would be significant.

Plan Concept 2

Implementation of Plan Concept 2 would be expected to have the same impacts on trees that may be protected by the County Tree Ordinance as Plan Concept 1. WPWMA assumes trees would be removed under Plan Concept 2. This impact would be significant.

Mitigation Measure 7-7: Conflicts with Local Ordinances.

Actions consistent with the following measure from the SAP will be implemented so that the proposed project does not conflict with the County Tree Ordinance:

- SAP Mitigation Measure 4.4-7a: Avoid or compensate for loss of protected trees.
 - The County will require future projects, including for offsite improvements, to avoid tree removal or death if feasible and appropriate, through incorporation of these features into project design and planning.
 - All trees retained onsite will be protected from construction-related impacts by placing exclusion fencing 1 foot outside the drip line of retained trees, or 1 foot outside the outer edge of the riparian woodland habitat and maintaining said fencing through the duration of construction.
 - If any trees protected under the County ordinance cannot feasibly be avoided, they will be mitigated through the payment of PCCP land conversion fees and incorporation of its avoidance and minimization measures into the project.

Level of Significance after Mitigation.

Implementation of actions consistent with SAP Mitigation Measure 4.4-7a would reduce significant impacts related to conflicts with County ordinances and policies protecting biological resources to a **less-than-significant** level because it would require projects to avoid protected trees, if feasible, and would require compensation for unavoidable loss of protected trees consistent with the PCCP.

IMPACTConflicts with an Adopted HCP, NCCP, or Other Approved Local, Regional, or State7-8Habitat Conservation Plan

The WPWMA will implement the proposed project as a Covered Activity under the approved PCCP, which is the only Habitat Conservation Plan or Natural Community Conservation Plan that has been adopted for the proposed project area. Therefore, the proposed project would not conflict with an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan, and **no impact** would occur.

Plan Concept 1

The proposed project site is within the boundaries of the approved PCCP HCP and NCCP, and the WPWMA would implement the proposed project as a Covered Activity. There are no other adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plans. Therefore, there would be no impact.

Plan Concept 2

Similar to Plan Concept 1, Plan Concept 2 is within the boundaries of the approved PCCP HCP and NCCP and would be implemented as a Covered Activity. There are no other adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plans. Therefore, there would be no impact.

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