3.7 BIOLOGICAL RESOURCES

This section addresses biological resources known or with potential to occur on or near the project site and describes potential effects of implementation of the project on those resources. The analysis provided in this section is based on:

- results of California Natural Diversity Database (CNDDB) record search of the nine US Geological Survey (USGS) 7.5-minute quadrangles including and surrounding the project site (CNDDB 2025a);
- results of California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California search of the nine USGS 7.5-minue quadrangles including and surrounding the project site (CNPS 2025);
- Preliminary Arborist Report and Tree Inventory (California Tree and Landscape Consulting, Inc. 2021) (Appendix D1);
- Preliminary Arborist Report and Tree Removal Plan (California Tree and Landscape Consulting, Inc. 2022) (Appendix D2);
- 6382 Phillip Rd., Roseville CA Bio/Wetland Resources Constraints Analysis (Barnett Environmental 2021) (Appendix D3);
- Jurisdictional Wetland Delineation For the APN: 017-101-008 6382 Phillp Road in Roseville (Placer County), California 95747 (Barnett Environmental 2025) (Appendix D4);
- Wetlands and Biological Resources Assessment on APN: 017-101-008 6382 Phillip Road in Placer County, California 95747 (Barnett Environmental 2026) (Appendix D5);
- reconnaissance-level survey of the project site by an Ascent wildlife biologist on August 6, 2021; and
- aerial photographs of the project site and region.

Several comment letters regarding biological resources were received in response to the notice of preparation (see Appendix A). The California Department of Fish and Wildlife (CDFW) requested that the EIR include a complete project description that identifies any areas that would be temporarily affected and a reasonable range of feasible alternatives; these issues are addressed in Chapter 2, "Project Description," and Chapter 6, "Alternatives." Regarding the regional setting for biological resources, CDFW requested that the EIR include an assessment of all habitat types located within the project footprint; a general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present on or adjacent to the project site; a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the project footprint and within offsite areas that could be affected; a thorough, recent (within the last 2 years), floristic-based assessment of special-status plants and natural communities; and information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region. Regarding the analysis of biological resources impacts, CDFW requested that the EIR include thresholds of significance and a discussion of potential direct, indirect, and cumulative impacts. CDFW noted that the EIR should identify appropriate and adequate avoidance, minimization, and/or mitigation measures for all significant impacts. Finally, CDFW provided information related to potential permits and approvals that may be needed for the project, including compliance with the California Endangered Species Act, Native Plant Protection Act, and Lake and Streambed Alteration Program. The Sierra Club requested that the project should make extensive use of native plants throughout the development. Finally, a member of the public requested that the EIR evaluate potential impacts of the project on sensitive habitat, protected species, wildlife corridors, wetlands, and edge effects on adjacent preserves; and include feasible mitigation measures and alternatives to lessen or avoid biological impacts. These issues are addressed in this section and in Chapter 6, "Alternatives."

3.7.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 US Code Section 1531 et seq.), US Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries regulate the taking of species listed in ESA as threatened or endangered. In general, people subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." NOAA Fisheries and USFWS have also interpreted the definition of "harm" to include significant habitat modification that could result in take. There is currently a proposed rule (Federal Register Vol. 90 No. 73, USFWS 2025) to rescind the definition of "harm" from ESA's "take" definition; however, a final rule has not been published. ESA requires that recovery plans be developed that describe the steps necessary to restore the species. Similarly, the act provides for the designation of "critical habitat" when prudent and determinable.

Section 10 of ESA applies if a non-federal agency is the lead agency for an action that results in take, and no other federal agencies are involved in permitting the action. Section 7 of ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS and NOAA Fisheries.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. MBTA provides that to pursue, take, or kill any migratory bird or any part, nest, or egg of any such bird is unlawful except as permitted by regulations. Under MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." Take does not include habitat destruction or alteration as long as birds, nests, eggs, or parts thereof are not directly taken. The current list of species protected by MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act, enacted in 1940 and amended multiple times, prohibits the taking of bald and golden eagles without a permit from the Secretary of the Interior. Similar to ESA, the Bald and Golden Eagle Protection Act defines "take" as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" (16 USC 668–668c). Under the act, disturbance that would injure an eagle, decrease productivity, or cause nest abandonment, including habitat alterations that could have these results, is considered take and can result in civil or criminal penalties.

Clean Water Act

Section 404

Section 404 of the Clean Water Act (CWA) (33 USC Section 1344) prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, except as permitted under separate regulations by the US Army Corps of Engineers (USACE) and US Environmental Protection Agency (EPA). Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United States. To discharge dredged or fill material into waters of the United States, including wetlands, Section 404 requires projects to receive authorization from the Secretary of the Army, acting through USACE. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; tributaries to any of these waters that are relatively permanent standing or

continuously flowing bodies of water; and wetlands adjacent to and with a continuous surface connection to these waters. Wetlands are defined as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Potentially jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of the CWA pending USACE verification.

Section 401

Under Section 401 of the CWA (33 USC Section 1341), an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the state's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board (SWRCB) to the regional water quality control boards (RWQCBs).

Rivers and Harbors Appropriation Act

Section 10

Under Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. Section 403) a Section 10 permit is required for activities which may obstruct or alter waters of the United States, including the construction of any structure in or over any navigable waters, the excavation from or depositing of material in to jurisdictional waters, or other work affecting the course, condition, or capacity of such waters. Section 10 requires projects to receive recommendation from the Chief of Engineers and authorization from the Secretary of the Army, acting through USACE.

Section 408

Section 408 of the Rivers and Harbors Appropriation Act (33 USC Section 408) provides that USACE may grant permission for another party to alter a Civil Works project, including the building of a bridge across a navigable waterway maintained and surveyed by USACE, upon a determination that the alteration proposed will not be injurious to the public interest or impair its usefulness. Within the Central Valley, Section 408 reviews may be coordinated through the Central Valley Flood Protection Board (CVFPB).

STATE

Central Valley Flood Protection Act

The Central Valley Flood Protection Act of 2008 establishes the 200-year flood event as the minimum level of protection for urban and urbanizing areas. As part of the state's FloodSAFE program, those urban and urbanizing areas protected by flood control project levees must receive protection from the 200-year flood event level by 2025. DWR and CVFPB collaborated with local governments and planning agencies to prepare the 2012 Central Valley Flood Protection Plan (CVFPP), which the CVFPB adopted on June 29, 2012. The Central Valley Flood Protection Act calls for updates to the CVFPP every five years. The 2022 CVFPP Update, adopted in December 2022, serves as California's strategic and financial blueprint to improve flood risk management in the Central Valley and focuses on flood system climate resiliency; accountability and adaptation through performance tracking; and strategic alignment with other state water management planning efforts (DWR 2022b).

The CVFPB authority and procedures are derived from the California Water Code and Title 23 of the California Code of Regulations (CCR). These regulations provide guidance when determining if a permit is needed for any project that may encroach upon, improve, alter or affect adopted plans of flood control (including federal/State flood control systems, regulated streams and designated floodways under CVFPB's jurisdiction). An encroachment permit is required for any proposed work that is located:

- between or in the vicinity of any Federal Project Levees within a State Plan of Flood Control;
- within 100-foot proximity of a non-leveed Regulated Stream listed in California Code of Regulations, Title 23, Waters, Division 1, Article 8, Table 8.1;

- within a Designated Floodway that has been adopted by the CVFPB; or
- within a Sacramento San Joaquin Drainage District (SSJDD) Easement.

The project is not located in the vicinity of any Federal Project Levees. Pleasant Grove Creek, which flows through the project site, is identified in Table 8-1 of Title 23 as a Regulated Stream. The CVFPB has not adopted Pleasant Grove Creek as a Designated Floodway and the project site is not located within a SSJDD easement. However, because the project includes activities within 100 feet of Pleasant Grove Creek (which is a Regulated Stream), including a new bridge across the creek, an encroachment permit from the CVFPB would be required for bridge construction.

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Section 2080 of CESA prohibits unauthorized take of state-listed species. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but does not include "harm" or "harass," as does the federal definition. As a result, the threshold for take is higher under CESA than under ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fish and Game Code

Protection of Bird Nests and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs or young.

Fully Protected Species

The regulation of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and generally do not provide for authorization of incidental take unless the species is covered and conserved in a natural community conservation plan (NCCP) or the project activities qualify for incidental take permitting under Section 2080.15 of the California Fish and Game Code. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA.

Lake and Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Section 1602 makes it unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- substantially divert or obstruct the natural flow of or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation (California Code of Regulations [CCR] Title 14, Section 1.72). CDFW jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW streambed alteration agreement must be obtained for any action that would result in an impact on a river, stream, or lake.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs in California prepare and periodically update basin plans for water quality control. 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 to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The jurisdiction of the RWQCBs includes waters of the United States, as well as areas that meet the definition of "waters of the state." "Waters of the state" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under CWA Section 404 provided they meet the definition of waters of the state. SWRCB published a new set of procedures for discharges of dredged or fill material into waters of the state that went into effect on May 28, 2020, which are described below. Mitigation requiring no net loss of wetlands functions and values of waters of the state typically is required by the RWQCB.

State Wetland Procedures

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Wetland Procedures), as prepared by the SWRCB, went into effect on May 28, 2020. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a wetland feature is a water of the state; (3) wetland delineation procedures; and (4) procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Procedures include a definition for wetland waters of the state that include (1) all wetland waters of the United States; and (2) aquatic resources that meet both the soils and hydrology criteria for wetland waters of the United States but lack vegetation (less than 5 percent areal coverage at the peak of the growing season).

Wetlands that meet the current definition, or any historic definition, of waters of the United States are waters of the state. In 2000, the SWRCB determined that all waters of the United States are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the United States (CCR title 23, Section 3831[w]). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state include features that have been determined by EPA or USACE to be "waters of the United States" in an approved jurisdictional determination; "waters of the United States" identified in an aquatic resource report verified by USACE upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the United States" or any current or historic federal regulation defining "waters of the United States" under CWA.

The SWRCB has adopted the following definition of wetlands:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. CESA expanded on the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered. Sixty-four species, subspecies, and varieties of plants are protected as rare under NPPA. The act prohibits take of endangered or rare native plants but includes exceptions for agricultural and nursery operations; for emergencies; and, after proper notification to CDFW, for vegetation removal from canals, roads, and other building sites; changes in land use; and other situations.

LOCAL

City of Roseville General Plan 2035

The Open Space and Conservation Element of the City of Roseville General Plan 2035 contains the following policies related to biological resources that may be relevant to the project (City of Roseville 2020):

- **Policy OS2.1** Incorporate existing trees into development projects with an emphasis on avoiding the removal of groupings or groves of trees. Where preservation is not feasible, continue to require mitigation for the loss of removed trees.
- **Policy OS2.2** Preserve and restore continuous riparian corridors and adjacent habitat along the City's creeks and waterways.
- **Policy OS2.4** Require preservation of contiguous areas in excess of the City's Regulatory Floodplain, as defined in the Safety Element, as merited by special resources or circumstances. Special circumstances may include, but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.
- **Policy OS2.6** Provide for the protection and enhancement of native fishery resources, as informed by continued coordination with the California Department of Fish and Wildlife.
- **Policy OS2.7** Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland mitigation as part of new development.
- **Policy OS2.8** Consider off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.
- **Policy OS2.11** Habitat preservation and mitigation for woodlands, creeks, riparian, and seasonal wetland areas should occur within the defined boundaries of the impacting projects where long-term resource viability is feasible and desirable, consistent with applicable state and federal permits.
- **Policy OS2.12** Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.
- **Policy OS2.13** Work with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation banking.

City of Roseville Municipal Code

Chapter 19.66 of the City of Roseville Municipal Code, "Tree Preservation," contains requirements for projects that would remove protected trees (i.e., native oak trees equal to or greater than six inches diameter at breast height (dbh) measured as a total of a single trunk or multiple trunks). Project applicants shall not harm, destroy, kill, or remove any protected tree or conduct project activities within the protected zone (i.e., a circle equal to the largest radius of a protected tree's dripline plus one foot) unless authorized by a Tree Permit. Applications for Tree Permits would be included as part of the land use permit for a discretionary project. The application would include a site plan map, tree locations, protected zones of protected trees, and an arborist report and may be accompanied by an application fee required by City Council.

Protected trees that are retained on a project site would be subject to the tree preservation measures as outlined in the Municipal Code, including protective fencing, signing, and modified ground disturbance activities (e.g., trenching with hand tools). If project implementation would include removal of protected trees, mitigation for loss of the trees would be required, and would include one of the following four methods: replacement of trees, relocation of trees, revegetation, or in-lieu mitigation fees. The City Planning Manager may allow removal of a protected tree which has been certified by an arborist to be a dead tree without any replacement or mitigation requirements.

West Roseville Specific Plan

As part of the West Roseville Specific Plan (WRSP), the Public Utility Easement (PUE) area, which is the alignment in which the project's proposed power poles would be installed from Roseville Energy Park to the project site (see Figure 2-9 in Chapter 2, "Project Description"), was previously authorized under the Department of Army Permit No. 200200666, later amended. This authorization allowed the discharge of fill into approximately 21.76 acres of waters of the United States to support development within the Westpark/Fiddyment Ranch portion of the WRSP. The permit also established permanent requirements for mitigation and long-term management.

3.7.2 Environmental Setting

LAND COVER AND VEGETATION

The project site is located in an undeveloped portion of the City of Roseville and is surrounded by agricultural land uses, undeveloped areas containing vernal pool-grassland complexes, and residential development (Figures 3.7-1 and 3.7-2). The project site contains agricultural land that has been designated as hay fields/row crops in the City of Roseville General Plan 2035 (City of Roseville 2020). A segment of Pleasant Grove Creek that runs east to west bisects the project site and a channelized, intermittent tributary to Pleasant Grove Creek, known as Pleasant Grove Creek First North Tributary (University Creek), is present on the northern boundary of the project site. Valley oak riparian woodland habitat is present on the project site associated with the Pleasant Grove Creek and the tributary as well as oak woodland in the center of the project site. A human-made flood channel called the Pleasant Grove Creek Bypass Channel is present near the center of the project site along the south side of Pleasant Grove Creek. Total acreage of each habitat present on the project site is summarized in Table 3.7-1, and detailed descriptions of each habitat and Pleasant Grove Creek are included below.

A total of 324 protected trees are present on the project site, including blue oaks (*Quercus douglasii*), interior live oaks (*Quercus wislizeni*), and valley oaks (*Quercus lobata*) (California Tree and Landscape Consulting, Inc. 2021). Several oaks within a small grove along Phillip Road, are quite large, including an interior live oak with an approximately 36-inch dbh. Several valley oaks also have dbhs larger than 20 inches.

Table 3.7-1 Land Cover and Vegetation on the Project Site

Habitat	Area or Length
Agricultural (Hay Fields/Row Crops)	210.9 acres
Riverine	
Pleasant Grove Creek	*0.4 miles*
Pleasant Grove Creek First North Tributary (University Creek)	*0.3 miles*
Valley Oak Riparian Woodland	6.1 acres
Oak Woodland	4.0 acres
Pleasant Grove Creek Bypass Channel (Riverine)	3.2 acres
Pleasant Grove Creek Bypass Channel (Ruderal Grassland)	10.8 acres
Vernal Pool Wetlands	1.131 acres

Source: Compiled by Ascent in 2025.

Agricultural (Hay Fields/Row Crops)

Approximately 220 acres of agricultural land are present on the project site (Table 3.7-1; Figure 3.7-1). This land was designated as hay fields/row crops in the City of Roseville General Plan 2035; however, the project site is not currently in agricultural production. The property was originally planted during the 1950s, was maintained in rice production through the 1990s, and has been planted in irrigated crops until the present day. The agricultural land is regularly disked every 2 years and is currently characterized by remnant cultivated grain species and sparse, ruderal, nonnative plant species, including yellow star thistle (*Centaurea solstitialis*) and chicory (*Cichorium intybus*). Individual trees are present along the

borders of the agricultural land, including valley oak, Pacific willow (*Salix lucida*), and Fremont cottonwood (*Populus fremontii*) (California Tree and Landscape Consulting, Inc. 2021). Earthen berms are present along the edges of the agricultural land, some of which contain California ground squirrel (*Otospermophilus beecheyi*) burrows.

Riverine

Pleasant Grove Creek

An approximately 0.4-mile, 2.104-acre segment of Pleasant Grove Creek extends east to west through the project site, bisecting the site (Table 3.7-1; Figure 3.7-1). Pleasant Grove Creek is a third order perennial stream and typically contains water year-round. During the reconnaissance-level survey on August 6, 2021, the creek was flowing slowly with some stagnant areas (i.e., low or no flow, green algae accumulation), and contained pools of various sizes. Beaver (*Castor canadensis*) dams were present in the creek, modifying flow in some areas. Some reaches of the creek have exposed muddy banks with dense cattails (*Typha* sp.) and some reaches have very little exposed bank habitat with dense vegetation (e.g., willows [*Salix* spp.]) present to the water line. Valley oak riparian woodland habitat is present but sparse along the north and south banks of the creek. In the parcel immediately downstream, the woodland habitat is denser.

Pleasant Grove Creek First North Tributary (University Creek)

An approximately 0.3-mile segment of an intermittent stream/irrigation canal called the Pleasant Grove Creek First North Tributary (University Creek) extends east to west along the northern boundary of the project site (Table 3.7-1; Figure 3.7-1). The tributary is a realigned, channelized segment of a natural tributary of Pleasant Grove Creek. This feature did not contain water during the August 6, 2021 reconnaissance-level survey; however, water is present during wet periods of the year based on a previous site assessment (Barnett Environmental 2021). The stream/canal contains some remnants of concrete irrigation infrastructure. Valley oak riparian woodland habitat is present along the banks of the stream/canal, which is described in more detail below. Presence of riparian vegetation along the banks of this tributary indicates that it has a groundwater source and does not flow just in direct response to rainfall.

Valley Oak Riparian Woodland

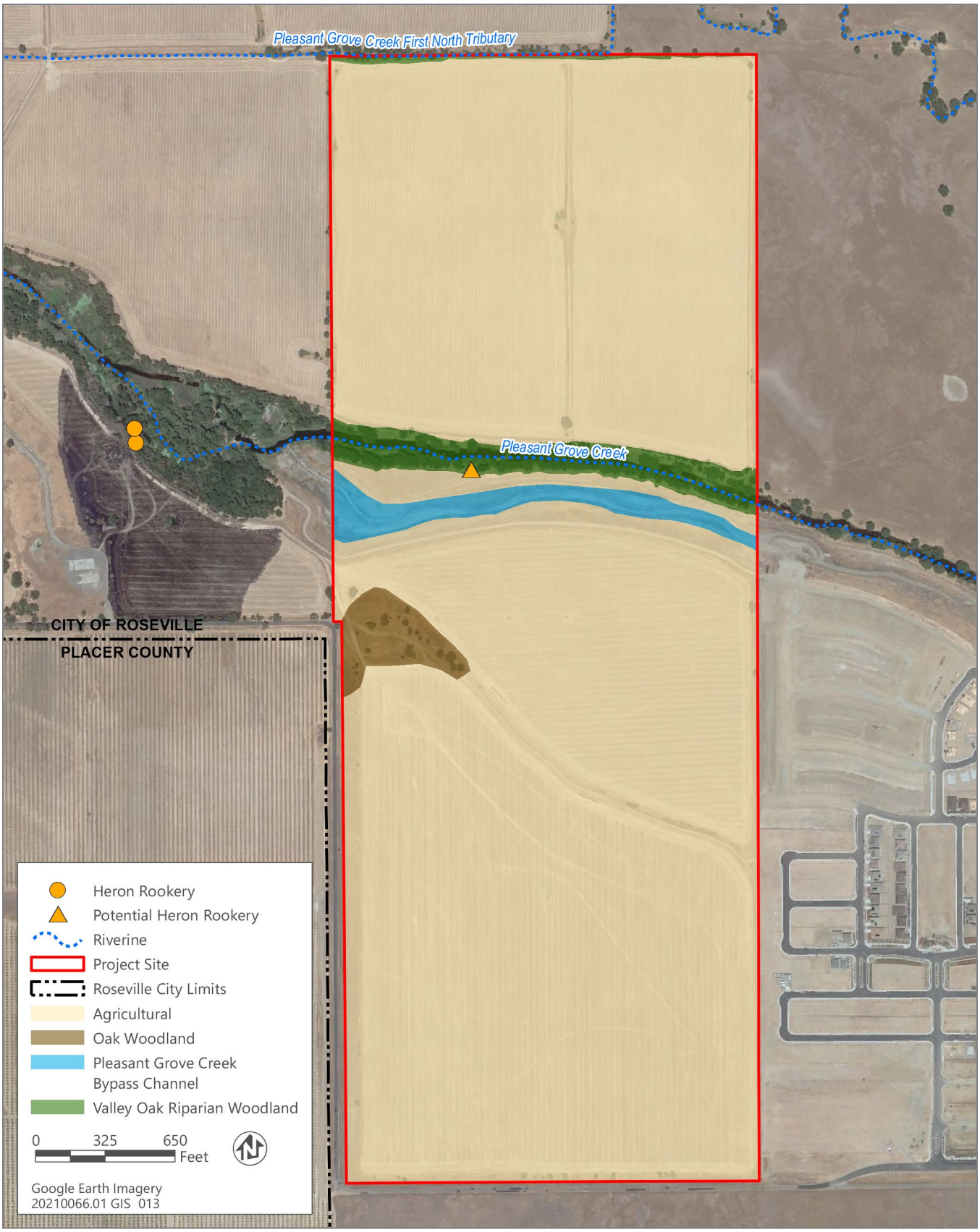
Approximately 6 acres of valley oak riparian woodland habitat is present in association with riverine habitat on the project site (Table 3.7-1; Figures 3.7-1 and 3.7-2). This habitat is dominated by valley oak and also contains Fremont cottonwood, willow, and interior live oak. Understory plant species included Himalayan blackberry (*Rubus armeniacus*), cattails, and nonnative grasses dominated by wild oat (*Avena fatua*).

Oak Woodland

Approximately 4 acres of oak woodland habitat is present within the agricultural land on the project site (Table 3.7-1, Figures 3.7-1 and 3.7-2). This grove of trees in the middle of the project site includes valley oak, blue oak, and Arizona ash (*Fraxinus velutina*) (California Tree and Landscape Consulting, Inc. 2021).

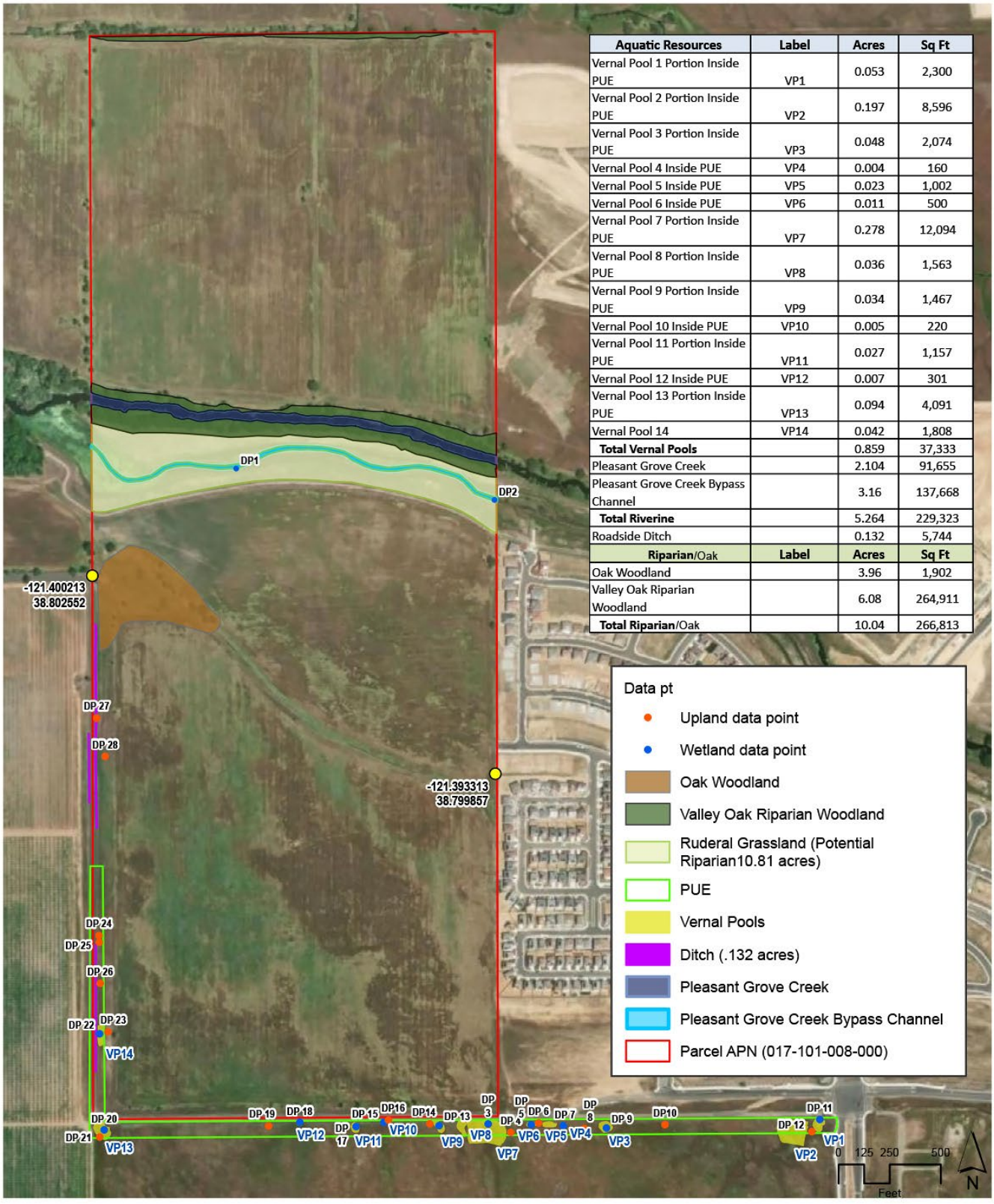
Pleasant Grove Creek Bypass Channel

Approximately 14 acres of the project site directly south of Pleasant Grove Creek contains the Pleasant Grove Creek Bypass Channel, a human-constructed flood channel that directs runoff from the project site and surrounding residential areas into Pleasant Grove Creek (Table 3.7-1; Figures 3.7-1 and 3.7-2). This area is comprised of 3.16 acres of riverine habitat, as well as 10.04 acres of potential riparian habitat that is largely populated with non-native herb and grass species that have taken advantage of the disturbed soil. The area does not contain specific facultative plant species that are associated with wetlands and riparian areas that are different than the surrounding agricultural land, including curly dock (*Rumex crispus*) and sedges (*Carex* spp.). The channel was constructed in uplands (agricultural crops) in 2019 and flows parallel to Pleasant Grove Creek from east to west, converging with Pleasant Grove Creek approximately 250 feet west of the project site.



Source: Adapted by Ascent in 2021.

Figure 3.7-1 Land Cover and Vegetation on the Project Site



Source: Barnett Environmental 2026.

Figure 3.7-2 Landcover and Vernal Pools on the Project Site and the Off-Site PUE Area

Vernal Pool Wetlands

Fourteen wetland features, totaling 1.131 acres, having strong floristic assemblages and hydro geomorphological signatures associated with vernal pools were identified in the off-site PUE area (Figure 3.7-2; Barnett Environmental 2025, 2026). These features were previously identified within the adjacent open space preserve within the WRSP. These features had characteristic basin-rim hydrogeomorphology that appears to sustain saturated soils and/or ponded water for a sufficient hydroperiod during the wet season to support a prevalence of hydrophytic vegetation, and contain floristic assemblages strongly allied with or having vernal pool indicator species.

SENSITIVE BIOLOGICAL RESOURCES

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California or the federal government as endangered, threatened, or rare;
- a candidate for state or federal listing;
- taxa (i.e., taxonomic category or group) that meet the definitions of rare and endangered under the CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380);
- species identified by CDFW as a "species of special concern," which is a term applied by CDFW to animals not listed under ESA or CESA, but that are declining at a rate that could result in listing or that historically occurred in low numbers and face known threats to their persistence;
- species listed as fully protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- plant taxa considered by the CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B. The CRPR system includes five rarity and endangerment ranks for categorizing plant species of concern:
    - CRPR 1A—plants presumed to be extinct in California;
    - CRPR 1B—plants that are rare, threatened, or endangered in California and elsewhere;
    - CRPR 2A—plants presumed to be extinct in California but common elsewhere;
    - CRPR 2B—plants that are rare, threatened, or endangered in California but more common elsewhere;
    - CRPR 3—plants about which more information is needed (a review list);
    - CRPR 4—plants of limited distribution (a watch list).

A preliminary list of special-status plants with potential to occur within and surrounding the project site was developed based on a review of the CNPS Online Inventory of Rare and Endangered Plants (CNPS 2025); a list of special-status species known to occur within the USGS 7.5-minute quadrangles including and surrounding the project site, obtained from the CNDDB (2025a); a list of species listed as endangered, threatened, or species that are candidates or proposed for listing under ESA that may be affected by the project (USFWS 2025); and previously conducted assessments of the project site by Ascent in 2021 and Barnett Environmental in 2021 and 2025 (Barnett Environmental 2021, 2025).

A preliminary list of special-status wildlife species known or with potential to occur on the project site was developed based on a review of the CDFW Special Animals List (CNDDB 2025b) and the overlapping ranges of CDFW species of special concern on the project site and a list of special-status species known to occur within the USGS 7.5-minute quadrangles including and surrounding the project site, obtained from the CNDDB (2025a).

Tables 3.7-1 and 3.7-2 summarize the regulatory status, habitat, and potential for occurrence on the project site of each special-status species evaluated.

Of the 11 special-status plant species assessed, eight species were determined to have potential to occur on the project site based on the presence of habitat suitable for the species (CNDDB 2025a; CNPS 2025; Barnett Environmental 2025, 2026; Table 3.7-1). Four of these species are associated vernal pools, and would have potential to occur only within the off-site portion of the PUE where wetlands with vernal pool characteristics were identified.

Of the 50 special-status wildlife species assessed, 22 species were determined to have potential to occur on the project site based on the presence of habitat suitable for the species (CNDDB 2025a; Barnett Environmental 2025, 2026; Table 3.7-2).

Table 3.7-1 Special-Status Plant Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence on the Project Site

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Big-scale balsamroot *Balsamorhiza macrolepis*	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 115–4,806 feet in elevation. Blooms March–June.	Not expected to occur. The project site does not contain soil types suitable for this species.
Spicate calycadenia *Calycadenia spicata*	—	—	1B.3	Cismontane woodland. Valley & foothill grassland Valley and foothill grassland, cismontane woodland. Dry, adobe, clay, gravelly, rocky, disturbed areas, openings, roadsides. 130–4,595 ft in elevation. Blooms May–September. Annual.	Not expected to occur. The project site is outside of the current range of this species along the eastern edge of the Central Valley and adjacent Sierra Nevada foothills. Although the species has a low CRPR Threat Rank (i.e., .3 – "Not very threatened in California"), the species is still considered as a 1B CRPR Rare Plant Rank species under CEQA.
Hispid salty bird's-beak *Chloropyron molle* ssp. *hispidum*	—	—	1B.1	In damp alkaline soils, especially in alkaline meadows and alkali sinks with *Distichlis*. 3–509 feet in elevation. Blooms June–September.	Not expected to occur. The project site does not contain alkaline meadows or sinks suitable for this species.
Dwarf downingia *Downingia pusilla*	—	—	2B.2	Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3–1,608 feet in elevation. Blooms March–May.	May occur. The grasslands and the riparian edge along the channel in the study area may provide habitat suitable for dwarf downingia, as well as wetlands identified in the off-site portion of the PUE.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	—	SE	1B.2	Clay soils; usually in vernal pools, sometimes on lake margins. 33–7,792 feet in elevation. Blooms April–August.	May occur. The project site contains habitat marginally suitable for this species along the edges of Pleasant Grove Creek, and within wetlands identified in the off-site portion of the PUE.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	—	—	1B.2	Moist, freshwater-soaked riverbanks and low peat islands in sloughs of the Delta, Central Valley, and Cascade Range foothills; can also occur on riprap and levees. 0–509 feet in elevation. Blooms June–September.	May occur. The segment of Pleasant Grove Creek on the project site may provide habitat suitable for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	—	—	1B.2	Restricted to the edges of vernal pools in grassland. 98–328 feet in elevation. Blooms March–May.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools which may provide habitat suitable for Ahart's dwarf rush. No such wetlands were identified on the remainder of the project site.
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*	—	—	1B.1	Vernally mesic sites. Sometimes on edges of vernal pools. 98–3,363 feet in elevation. Blooms March–June.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools, which may provide habitat suitable for Red Bluff dwarf rush. No such wetlands were identified on the remainder of the project site.
Legenere *Legenere limosa*	—	—	1B.1	In beds of vernal pools. 3–2,887 feet in elevation. Blooms April–June.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools, which may provide habitat suitable for legenere. No such wetlands were identified on the remainder of the project site.
Pincushion navarretia *Navarretia myersii* ssp. *myersii*	—	—	1B.1	Vernal pools in clay soils within non-native grassland. 148–328 feet in elevation. Blooms April–May.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools, which may provide habitat suitable for pincushion navarretia. No such wetlands were identified on the remainder of the project site.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B.2	In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May–October.	May occur. The segment of Pleasant Grove Creek on the project site may provide habitat suitable for this species.

Notes: CRPR = California Rare Plant Rank; CEQA = California Environmental Quality Act; ESA = Endangered Species Act.

[1] Legal Status Definitions

State:

SE State Listed as Endangered (legally protected by CESA)

California Rare Plant Ranks (CRPR):

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

CRPR Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
0.3 Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Sources: Barnett Environmental 2025, 2026; CNDDB 2025a; CNPS 2025.

Table 3.7-2 Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence on the Project Site

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Invertebrates				
Crotch's bumble bee *Bombus crotchii*	—	SC	Found primarily in California: mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	May occur. The project site contains floral resources that may provide foraging opportunities for Crotch's bumble bee, as well as potential nesting and overwintering habitat suitable for the species.
Conservancy fairy shrimp *Branchinecta conservatio*	FE	—	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Not expected to occur. The off-site portion of the PUE contains vernal pool habitat; however, this habitat does not include cooler-water, moderately turbid vernal pool habitat suitable for conservancy fairy shrimp.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	—	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools, which may provide habitat suitable for vernal pool fairy shrimp. Although surveys for vernal pool fairy shrimp were not conducted for the West Roseville Specific Plan, the plan presumed the species to be present in vernal pools on the project site (City of Roseville 2004). No wetlands suitable for the species were identified on the remainder of the project site.
Monarch Butterfly *Danaus plexippus*	FP	—	Habitat requirements include host plants for larvae (primarily milkweeds [*Asclepias* spp.]); adult nectar sources (i.e., flowering plants); and sites for roosting, thermoregulation, mating, hibernation, and predator escape. Additionally, monarch butterfly requires conditions and resources for initiating and completing migration both to and from winter roosting areas. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	May occur. The project contains floral resources that may be suitable for foraging or breeding monarch.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	—	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not expected to occur. No elderberry shrubs were observed on the project site during the reconnaissance-level survey on August 6. 2021, or by Barnett Environmental during surveys on February 23 or July 21, 2002

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	May occur. The off-site portion of the PUE contains wetland habitat with floristic assemblages associated with vernal pools, which may provide habitat suitable for vernal pool tadpole shrimp. Although surveys for vernal pool tadpole shrimp were not conducted for the West Roseville Specific Plan, the plan presumed the species to be present in vernal pools on the project site (City of Roseville 2004). No wetlands suitable for the species were identified on the remainder of the project site.
Fish				
Green sturgeon *Acipenser medirostris*	FT	SSC	The most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Not expected to occur. Green sturgeon is not known to occur in Pleasant Grove Creek and the project site is outside of the known range of this species.
Riffle sculpin *Cottus gulosus*	—	SSC	Found in headwater streams with cold water and rocky or gravelly substrate. Prefer permanent streams.	Not expected to occur. The segment of Pleasant Grove Creek on the project site does not contain rocky or gravelly substrate suitable for riffle sculpin.
Pacific lamprey *Entosphenus tridentatus*	—	SSC	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River.	Not expected to occur. Pacific lamprey is not known to occur in Pleasant Grove Creek, and the project site does not contain habitat suitable for the species.
Delta smelt *Hypomesus transpacificus*	FT	SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Not expected to occur. The project site does not contain aquatic habitat suitable for this species.
Western river lamprey *Lampetra ayresii*	—	SSC	Lower Sacramento River, San Joaquin River, and Russian River. May occur in coastal streams north of San Francisco Bay.	Not expected to occur. Western river lamprey is not known to occur in Pleasant Grove Creek, and the project site does not contain habitat suitable for the species.
Sacramento hitch *Lavinia exilicauda exilicauda*	—	SSC	Found in slow, warm water, including lakes and quiet stretches of river. Sometimes found in cool, clear, low-gradient streams.	May occur. The portion of Pleasant Grove Creek on the project site may provide habitat suitable for this species.
Hardhead *Mylopharodon conocephalus*	—	SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity.	Not expected to occur. Pleasant Grove Creek is hydrologically connected to watercourses occupied by hardhead; however, habitat suitable for the species is not present in the project area.
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT	SSC	Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. Steelhead are not known to occur in Pleasant Grove Creek. Pleasant Grove Creek is hydrologically connected to watercourses occupied by this species; however, Pleasant Grove Creek is unsuitable for salmonids dues to warm water temperatures and lack of spawning substrates (Bailey Environmental 2003)

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Chinook salmon - Central Valley fall / late fall-run ESU *Oncorhynchus tshawytscha* pop. 13	—	SSC	Sacramento/San Joaquin flowing waters. Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. Chinook salmon are not known to occur in Pleasant Grove Creek, and the project site is outside of the known range of this ESU. Pleasant Grove Creek is hydrologically connected to watercourses occupied by this species; however, the creek is unsuitable for salmonids due to warm water temperatures and lack of spawning substrates (Bailey Environmental 2003)
Chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha* pop. 11	FT	ST	Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Federal listing refers to populations spawning in Sacramento River and tributaries.	Not expected to occur. Chinook salmon are not known to occur in Pleasant Grove Creek, and the project site is outside of the known range of this ESU. Pleasant Grove Creek is hydrologically connected to watercourses occupied by this species; however, the creek is unsuitable for salmonids due to warm water temperatures and lack of spawning substrates (Bailey Environmental 2003.
Chinook salmon - Sacramento River winter-run ESU *Oncorhynchus tshawytscha* pop. 7	FE	SE	Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds for spawning.	Not expected to occur. Chinook salmon are not known to occur in Pleasant Grove Creek, and the project site is outside of the known range of this ESU. Pleasant Grove Creek is hydrologically connected to watercourses occupied by this species; however, the creek is unsuitable for salmonids due to warm water temperatures and lack of spawning substrates (Bailey Environmental 2003).
Sacramento splittail *Pogonichthys macrolepidotus*	—	SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not expected to occur. The project site is outside of the current known range of this species.
Longfin smelt *Spirinchus thaleichthys*	FE	—	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not expected to occur. The project site does not contain aquatic habitat suitable for this species.
Amphibians				
Western spadefoot *Spea hammondii*	—	SSC SC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	May occur. Grassland, riverine, and wetland habitat on the project site may provide habitat suitable for western spadefoot.
Reptiles				
Northwestern pond turtle *Actinemys marmorata*	PT	SSC	An aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	May occur. The segments of Pleasant Grove Creek and the Pleasant Grove Creek First North Tributary that run through the project site contain aquatic habitat potentially suitable for northwestern pond turtle, and upland habitat along these features may provide upland nesting habitat suitable for the species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Coast horned lizard *Phrynosoma blainvillii*	—	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low shrubs. Open areas for sunning, shrubs for cover, patches of loose soil for burial, and abundant supply of native ants and other insects.	Not expected to occur. The project site does not contain shrub habitat or loose, sandy soil suitable for this species.
Giant gartersnake *Thamnophis gigas*	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. Riverine features in the project site may provide suitable habitat for giant gartersnake; however, the project site is approximately 7 miles outside of the known range for this species.
Birds				
Tricolored blackbird *Agelaius tricolor*	—	ST 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 the colony.	May occur. Riparian vegetation (e.g., cattails, Himalayan blackberry) adjacent to Pleasant Grove Creek may provide nesting habitat suitable for tricolored blackbirds.
Grasshopper sparrow *Ammodramus savannarum*	—	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	May occur. Grassland on the project site may provide habitat suitable for grasshopper sparrow.
Golden eagle *Aquila chrysaetos*	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The project site does not contain nesting habitat (i.e., large trees in open areas) suitable for golden eagle.
Short-eared owl *Asio flammeus*	—	SSC	Great Basin grassland, marsh and swamp, meadow and seep, valley and foothill grassland, and wetlands. Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	May occur. Grassland habitat on the project site, including wetlands identified in the off-site portion of the PUE, may provide habitat suitable for nesting short-eared owls.
Long-eared owl *Asio otus*	—	SSC	Riparian bottomlands containing tall willows and cottonwoods and belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Not expected to occur. The project area is outside of the expected range of the species, and does not contain habitat suitable for residential long-eared owls.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Burrowing owl *Athene cunicularia*	—	SSC SC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	May occur. The project site contains earthen berms that may provide burrow habitat suitable for this species.
Redhead *Aythya americana*	—	SSC	Overwater nests constructed in relatively tall, dense emergent vegetation of deeper semipermanent and permanent marshes. Modoc county to Mono County in lacustrine waters, Central Valley and central California foothills and coastal lowlands, and along the coast from Monterey county south to Ventura county and along the Colorado river.	Not expected to occur. The project site does not contain open water or marsh habitat suitable for redhead.
Swainson's hawk *Buteo swainsoni*	—	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	May occur. Trees on the project site, especially trees within the riparian corridors along Pleasant Grove Creek and the tributary on the northern edge of the project site, provide nesting habitat suitable for Swainson's hawk.
Black tern *Chlidonias niger*	—	SSC	Freshwater lakes, ponds, marshes and flooded agricultural fields. At coastal lagoons and estuaries during migration. Breeding range reduced. Breeds primarily in Modoc Plateau region, with some breeding in Sacramento and San Joaquin valleys	May occur. Pleasant Grove Creek may provide habitat marginally suitable for black tern.
Northern harrier *Circus hudsonius*	—	SSC	Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	May occur. The herbaceous understory associated with riparian vegetation adjacent to Pleasant Grove Creek may provide nesting habitat suitable for this species.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	May occur. Riparian vegetation (e.g., cottonwoods, willows) adjacent to Pleasant Grove Creek may provide nesting habitat suitable for western yellow-billed cuckoo.
White-tailed kite *Elanus leucurus*	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	May occur. Trees on the project site, especially trees within the riparian corridors along Pleasant Grove Creek and the tributary on the northern edge of the project site, provide nesting habitat suitable for white-tailed kite.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
American peregrine falcon *Falco peregrinus anatum*	FD	SD	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not expected to occur. The project site does not contain natural or human-made nesting habitat suitable for this species. While American peregrine falcons may forage on the project site occasionally, the site does not contain high-quality foraging habitat for this species.
Bald eagle *Haliaeetus leucocephalus*	FD	SE	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not expected to occur. The project site does not contain nesting habitat (i.e., large trees near open water) suitable for this species.
Loggerhead shrike *Lanius ludovicianus*	—	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	May occur. The project site contains scattered woodland and some shrubs that may provide nesting habitat suitable for loggerhead shrike.
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur. The project site does not contain freshwater or saltwater marsh habitat suitable for California black rail.
Song sparrow ("Modesto" population) *Melospiza melodia*	—	SSC	Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak, and vegetated irrigation canals and levees.	May occur. The riparian habitat adjacent to Pleasant Grove Creek may provide nesting habitat suitable for song sparrow.
American white pelican *Pelecanus erythrorhynchos*	—	SSC	Colonial nester on large interior lakes. Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.	Not expected to occur. The project site does not contain lake nesting or non-breeding roosting habitat suitable for this species.
Purple martin *Progne subis*	—	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree or snag.	Not expected to occur. The project site does not contain coniferous forest habitat or human-made structures suitable for nesting purple martins.
Bank swallow *Riparia riparia*	—	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks or cliffs with fine-textured or sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. The banks of Pleasant Grove Creek are not vertical with sandy soils, and do not provide nesting habitat suitable for bank swallows.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	—	SSC	Nests in freshwater emergent wetlands with tall, dense, emergent vegetation and deep water. Most commonly along borders of lakes, reservoirs, or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects. Forages in emergent wetland and moist, open areas, especially cropland and muddy shores of lacustrine habitat.	May occur. The project site contains foraging habitat (i.e., rice fields) suitable for yellow-headed blackbirds.
Mammals				
Pallid bat *Antrozous pallidus*	—	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	May occur. The project site contains large valley oak trees that may provide roosting habitat for pallid bats.
Northern California ringtail *Bassariscus astutus*	—	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	May occur. Large valley oak trees within the riparian habitat adjacent to Pleasant Grove Creek may provide den habitat suitable for ringtails and this habitat may also act as a movement corridor for the species.
Townsend's big-eared bat *Corynorhinus townsendii*	—	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Requires large cavities for roosting, which may include abandoned buildings and mines, caves, and basal cavities of trees. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Not expected to occur. The project site does not contain roost habitat suitable for Townsend's big-eared bat.
Western mastiff bat *Eumops perotis*	—	SSC	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Found in a variety of habitats, from desert scrub to chaparral to oak woodland and into the ponderosa pine belt and high elevation meadows of mixed conifer forests. The distribution of this species is likely geomorphically determined, with the species being present only where there are significant rock features offering roosting habitat.	Not expected to occur. The project site does not contain suitable tall, vertical roost habitat for western mastiff bat.
Western red bat *Lasiurus frantzii*	—	SSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	May occur. The project site contains large broadleaf trees that may provide roosting habitat for western red bat.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
American badger *Taxidea taxus*	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. The land in the vicinity of the project site is composed of a grassland and agricultural complex which likely supports American badgers. However, the agricultural land on the project site is regularly cultivated and disked and it is unlikely that American badgers would establish dens on the project site.

Notes: CNDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act.

[1] Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)
FT Federally Listed as Threatened (legally protected)
FD Federally Delisted

State:

FP Fully protected (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)
SE State Listed as Endangered (legally protected)
ST State Listed as Threatened (legally protected)
SC State Candidate for listing (legally protected)
SD State Delisted

Sources: Barnett Environmental 2025, 2026; CNDDB 2025a.

Fisheries

Pleasant Grove Creek and tributaries associated with this creek support warmwater fisheries characterized by introduced species (Placer County 2006; California Fish Website 2025). Fish species known to occur in these streams within the vicinity of the project site include bluegill (*Lepomis macrochirus*), pumpkinseed (*Lepomis gibbosus*), redear sunfish (*Lepomis microlophus*), mosquitofish (*Gambusia affinis*), carp (*Cyprinus carpio*), largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), yellow shiner (*Notemigonus crysoleucas*), and channel catfish (*Ictalurus punctatus*) (California Fish Website 2025). A number of invasive aquatic organisms are also found in these waterways, including Asiatic clam (*Corbicula fluminea*), American bullfrog (*Lithobates catesbeianus*), and crayfish (*Pacifastacus leniusculus*). No portions of Pleasant Grove Creek or its tributaries provide habitat suitable for salmonid species because of warm summer temperatures, high organic content, absence of gravel or cobble substrate, and lack of instream cover. Similarly, assessments by Bailey Environmental (2003) found that the middle and lower reaches of Pleasant Grove Creek were also unsuitable for salmonids because of warm water temperatures and lack of suitable spawning substrates.

Sensitive Natural Communities and Sensitive Habitat Types

Sensitive natural communities are native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CNDDB 2025b). These communities may or may not contain special-status plants or their habitat. CDFW designates sensitive natural communities based on their state rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3—where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable—are considered sensitive natural communities to be addressed in the environmental review processes of CEQA. Many riparian plant communities qualify as sensitive natural communities based on the plant associations therein. In addition, riparian habitats are protected under Section 1602 of California Fish and Game Code.

Two sensitive natural communities have potential to occur on the project site based on the habitat types present on the project site: valley oak riparian forest and woodland and vernal pools.

Valley Oak Riparian Forest and Woodland

Valley oak is the dominant component of the canopy of the valley oak riparian woodland habitat on the project site. Membership rules for the valley oak woodland and forest sensitive natural community include habitats with over 35 percent relative tree canopy cover composed of valley oak, often with the remainder of the canopy composed of other tree species including Fremont cottonwood (Sawyer et al. 2009). The valley oak riparian woodland habitat on the project site meets these membership rules. This sensitive natural community has a state rarity ranking of S3.

Vernal Pool Wetland

Wetlands with floristic assemblages associated with vernal pools are present in the off-site portion of the PUE. Vernal pools are not present on the remainder of the project site. While the parcel is surrounded by vernal pool-grassland complex habitat, continuous cultivation over the past 70 or more years has modified the original hydrology of the project site to effectively remove any native vernal pool wetlands that likely occurred historically (Barnett Environmental 2021).

Wildlife Nursery Sites

Nursery sites are locations where fish or wildlife concentrate for hatching and/or raising young, such as nesting rookeries for birds (e.g., herons, egrets), spawning areas for native fish, fawning areas for mule deer (*Odocoileus hemionus*), and maternal roosts for bats. Based on historic aerial imagery, rookeries likely associated with snowy egrets (*Egretta thula*), great egrets (*Ardea alba*), or black-crowned night herons (*Nycticorax nycticorax*) are present in trees within the Al Johnson Wildlife Area approximately 0.17 miles west of the project site (Figure 3.7-1). Large accumulations of heron guano within rookery trees tends to eventually kill the tree. A large, dead tree on the project site may also be currently used or historically used as a heron rookery, and other large trees along Pleasant Grove Creek may be used as rookeries now or in the future (Figure 3.7-1).

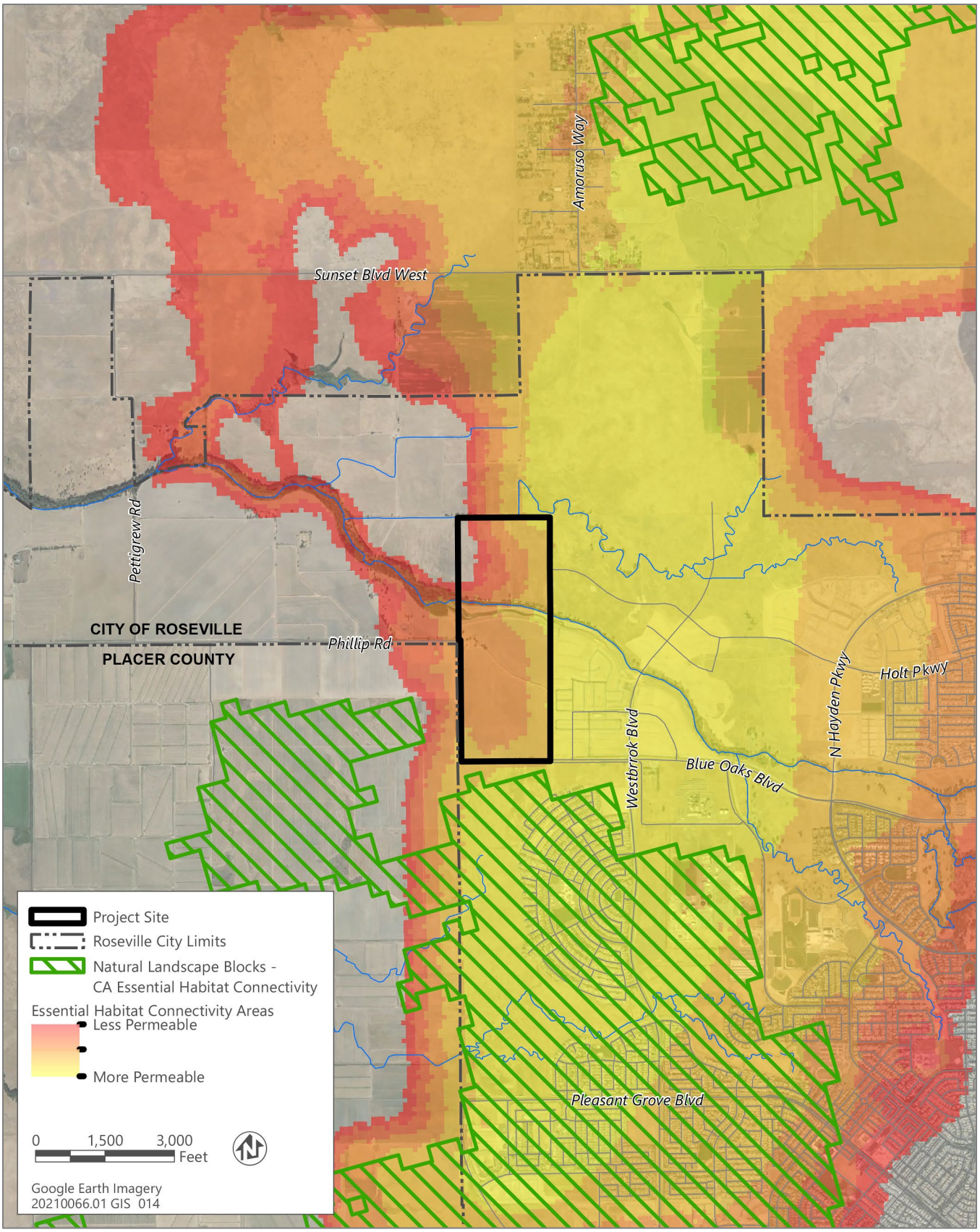
Additionally, some large valley oak, blue oak, and Fremont cottonwood trees on the project site contain structural features (e.g., cavities, crevices, sloughing bark) that may provide roosting habitat potentially suitable for common bat species (e.g., big brown bat [*Eptesicus fuscus*], silver-haired bat [*Lasionycteris noctivagans*]).

Wildlife Movement Corridors

A wildlife movement corridor is generally a topographical/landscape feature or movement zone that connects two or more natural habitat areas. Wildlife corridors link areas of suitable wildlife habitat that are separated by variation in vegetation, rugged terrain, human disturbance, and habitat fragmentation, or other biophysical factors. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Therefore, wildlife movement and migration corridors are considered an important ecological resource by CDFW and other agencies and are protected by many local governments in California.

Some of the important areas for habitat connectivity in California were mapped as Essential Connectivity Areas (ECA) for the California Essential Habitat Connectivity Project, which was commissioned by the California Department of Transportation and CDFW with the purpose of making transportation and land-use planning more efficient and less costly, while helping reduce dangerous wildlife-vehicle collisions (Spencer et al. 2010). The ECAs were not developed for the purposes of defining areas subject to specific regulations by CDFW or other agencies. The project site is included in a modeled ECA connecting natural landscape blocks to the north and south (Figure 3.7-3).

As noted above, the project site is surrounded by agricultural land uses and vernal pool-grassland complex habitat. Residential development is present east and southeast of the project site, which likely impedes wildlife movement in the region. The undeveloped nature of the project site likely supports movement of wildlife, including small mammals (e.g., rodents, rabbits) and mule deer (*Odocoileus hemionus*). A large, male mule deer was observed within the Pleasant Grove Creek First North Tributary (University Creek) during the reconnaissance-level survey on August 6, 2021. Pleasant Grove Creek and the valley oak riparian woodland habitat associated with the creek likely function as wildlife movement corridors for fish, amphibians, birds, and small mammals.



Source: Data downloaded from CDFW in 2014 and 2017.

Figure 3.7-3 Essential Connectivity Areas and Natural Landscape Blocks in the Vicinity of the Project Site

Waters of the United States and Waters of the State

Natural aquatic habitat on the project site includes Pleasant Grove Creek, the Pleasant Grove Creek First North Tributary (University Creek), and 14 identified wetlands in the off-site portion of the PUE. Both of the riverine features would likely be considered waters of the United States due to their connectivity to other waters of the United States. The Pleasant Grove Creek Bypass Channel on the project site contains water during wet periods of the year, and while the channel is human-made, it may be considered a water of the United States because of its connectivity to Pleasant Grove Creek, and ultimate connectivity to Traditional Navigable Waters (i.e., Sacramento River via Pleasant Grove Creek and Cross Canal). All waters of the United States are also waters of the state; however, wetlands and waters disclaimed by USACE may still meet the definition of waters of the state, including isolated vernal pools.

3.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during a reconnaissance-level field survey conducted on August 6, 2021, review of aerial photographs, review of existing databases that address biological resources in the project vicinity, and review of existing resource reports as described above.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would cause a significant impact related to biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by 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 CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

The project site is not within the plan area of any adopted Habitat Conservation Plan (HCP) or NCCP. The Western Placer County HCP/NCCP plan area is located nearby (i.e., the project site is adjacent to the Potential Growth area of the Placer County HCP/NCCP to the west and is located approximately 0.5 miles south of the nearest Placer County HCP/NCCP Reserve Acquisition Area); however, the City of Roseville is not a participant in this plan. Therefore, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Result in Disturbance or Loss of Special-Status Plant Species

Project activities within the valley oak riparian woodland habitat on the project site, including ground disturbance, vegetation removal, construction of a bridge across Pleasant Grove Creek, the installation of utilities in the PUE, and encroachment by buildings and paved areas may result in disturbance to or loss of special-status plants if they are present. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a **potentially significant** impact.

Eight special-status plant species may occur on the project site. Four of these species (Ahart's dwarf rush, Red Bluff dwarf rush, legenere, and pincushion navarretia) are associated with vernal pools that may be present in the off-site area of the PUE, but are not expected to occur on the remainder of the project site. The remaining four species (Bogg's Lake hedge-hyssop, dwarf downingia, Sanford's arrowhead, and woolly rose-mallow) may occur in association with the vernal pools that may be present in the off-site portion of the PUE, as well as along Pleasant Grove Creek.

Most project activities would occur within the agricultural land on the project site and would avoid Pleasant Grove Creek. However, proposed development directly south of the Pleasant Grove Creek and University Creek at the northern most portion of the project site may encroach into the valley oak riparian woodland habitat adjacent to both riverine features, and construction of the bridge across Pleasant Grove Creek may result in disturbance of riparian and creek bank habitat adjacent to the creek. Additionally, installation of utilities in the off-site portion of the PUE may result in disturbance of vernal pool habitat. Construction activities associated with the bridge across Pleasant Grove Creek and installation of utilities in the PUE may include ground disturbance and vegetation removal. As a result, direct loss of these special-status plants or indirect damage could occur through trampling or damage to root systems of these species, if present. Loss or damage of special-status plants would be a **potentially significant** impact.

Mitigation Measures

Mitigation 3.7-1: Conduct Special-Status Plant Surveys and Implement Avoidance Measures and Mitigation

- Prior to implementation of project activities within valley oak riparian woodland habitat on the project site or the PUE, and during the blooming period for the special-status plant species with potential to occur on the project site (i.e., approximately May to October), a qualified botanist shall conduct protocol-level surveys for special-status plants within the project site following survey methods from CDFW's *Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities* (CDFW 2018 or most recent version). The qualified botanist shall: (1) be knowledgeable about plant taxonomy, (2) be familiar with plants of the Sacramento Valley region, including special-status plants and sensitive natural communities, (3) have experience conducting floristic botanical field surveys as described in CDFW 2018, (4) be familiar with the *California Manual of Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/), and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting.
- If special-status plants are not found, the botanist shall document the findings in a report to the project applicant and the City of Roseville, and no further mitigation shall be required.
- If special-status plant species are found during protocol-level surveys, the plant shall be avoided completely, if feasible (i.e., project objectives can still be met). This may include establishing a no-disturbance buffer around the plants and demarcation of this buffer by a qualified biologist or botanist using flagging or high-visibility construction fencing. The size of the buffer shall be determined by the qualified biologist or botanist and shall be large enough to avoid direct or indirect impacts on the plant.
- If special-status plants are found during special-status plant surveys and cannot be avoided, the project applicant shall, in consultation with CDFW as appropriate depending on the particular species, develop and implement a site-specific mitigation strategy to offset the loss of occupied habitat and individual plants. Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through

seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside of the project site, with a preference for on-site mitigation. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. Success criteria for preserved and compensatory populations shall include:

- The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than the affected occupied habitat.
- Compensatory and preserved populations shall be self-producing. Populations shall be considered self-producing when:
    - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
    - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
    - If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations.

- Future maintenance activities (i.e., activities to maintain functional and structural integrity) associated with the bridge crossing Pleasant Grove Creek shall be subject to the City of Roseville's existing Streambed Alteration Agreement with CDFW for routine maintenance activities, which requires CDFW notification prior to implementation of maintenance activities, pre-activity surveys for special-status species, biological monitoring, limits to vegetation removal within and adjacent to waterways, and other avoidance measures to reduce impacts on natural resources.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-1 would reduce significant impacts on special-status plants to a **less-than-significant** level by requiring a protocol-level survey for special-status plants for project activities associated with construction of the bridge across Pleasant Grove Creek and installation of utilities in the PUE, and implementation of avoidance measures and compensation for impacts on special-status plants.

Impact 3.7-2: Result in Disturbance to or Loss of Special-Status Wildlife Species and Habitat

Project activities would include ground disturbance, vegetation removal, and construction of a bridge over Pleasant Grove Creek, buildings, installation of utility infrastructure in the PUE near wetlands, and additional development, which could result in disturbance, injury, or mortality of several special-status wildlife species if present, reduced breeding productivity of these species, and loss of species habitat. This would be a **potentially significant** impact.

Table 3.7-3 provides a list of the special-status wildlife species that may occur on the project site. Twenty-two wildlife species may occur on the project site: Crotch's bumble bee, vernal pool fairy shrimp, monarch butterfly, vernal pool tadpole shrimp, Sacramento hitch, western spadefoot, northwestern pond turtle, tricolored blackbird, grasshopper sparrow, short-eared owl, burrowing owl, Swainson's hawk, black tern, northern harrier, western yellow-billed cuckoo, white-tailed kite, loggerhead shrike, song sparrow ("Modesto" population), yellow-headed blackbird, pallid bat, northern California ringtail, and western red bat. Common native nesting birds protected under California Fish and Game Code and the federal MBTA may also be present on the project site. Additionally, while the project site does not contain aquatic habitat suitable for most special-status fish species, Pleasant Grove Creek is hydrologically connected to watercourses occupied by these species (Table 3.7-3).

WESTERN SPADEFOOT

Aquatic habitat potentially suitable for western spadefoot is present in Pleasant Grove Creek and the Pleasant Grove Creek First Northern Tributary, and vernal pool habitat potentially suitable for western spadefoot is present in the off-site portion of the PUE. Additionally, western spadefoot has potential to occur in grassland and oak woodland habitats on the project site that contain vernal pools, wetlands, or other temporary pool habitat formed by winter rains (e.g., tire ruts). Western spadefoot may burrow in upland habitat up to approximately 860 feet from breeding ponds (Baumberger et al. 2019).

Most project activities would occur within the agricultural land on the project site and would avoid potential western spadefoot habitat. However, infrastructure associated with the proposed development, construction of a bridge across Pleasant Grove Creek and installation of new public utilities in the PUE may result in disturbance of western spadefoot habitat, as well as possible encroachment by buildings and paved areas. Construction activities associated with these project features may include ground disturbance and vegetation removal. As a result, these activities could result in loss of or injury to western spadefoot if present within the project site. Loss or injury of western spadefoot would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2a: Conduct Preconstruction Surveys for Western Spadefoot, Implement Avoidance Measures, and Relocate Individuals

- Within three days of commencement of ground-disturbing activities, a qualified biologist familiar with the life history of western spadefoot and experienced in performing surveys for western spadefoot shall conduct a focused survey of aquatic and upland habitat suitable for the species on the project site, including Pleasant Grove Creek, the Pleasant Grove Creek First North Tributary (University Creek), and wetland habitat in the PUE. The qualified biologist shall inspect the project site for western spadefoot, western spadefoot tadpoles and eggs, and suitable terrestrial and overwintering habitat (i.e., burrows).
    - If an overwintering western spadefoot, western spadefoot tadpoles, or western spadefoot eggs are observed on the project site during the preconstruction survey, the area shall be fenced off and avoided until the eggs hatch, tadpoles develop, and/or the burrow is no longer active, as determined by a qualified biologist. The fenced area shall be open on one side with the opening facing the nearest aquatic or upland dispersal habitat so that young or overwintering western spadefoot can freely travel from the fenced area to the aquatic or dispersal habitat. A qualified biologist shall monitor the nest area to ensure that western spadefoot do not disperse into the construction area. Monitoring shall occur until the qualified biologist determines the area to no longer be actively occupied by western spadefoot.
    - A qualified biologist shall be present during all ground-disturbing activities to monitor these activities. If a western spadefoot is encountered, work shall be suspended in a 100-foot radius of the animal until the animal leaves the project site of its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a western spadefoot or who finds a western spadefoot dead, injured, or entrapped must immediately report the incident to the applicant, who must immediately notify CDFW. Entrapped western spadefoot shall be relocated by a qualified biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW.
        - Because western spadefoot is proposed for listing under ESA, if the species is listed before completion of project construction activities that could result in injury or mortality of western spadefoots (i.e., ground disturbance, grading, land conversion), then the project applicant may be required to consult with USFWS under Section 7 or Section 10 of ESA. If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the measures described above, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a

Section 10 permit pursuant to ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS. Any conservation measures developed in coordination with USFWS during the course of formal or informal consultation under Section 7 or during Section 10 consultation would supersede the measures listed here.

- Such conservation measures could include, but would not be limited to, seasonal work restrictions for initial ground disturbance, preconstruction surveys by a qualified biologist, installation of wildlife exclusion fencing, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or enhancement of habitat on-of off-site; purchase of habitat credits from an agency-approved mitigation/conservation bank; work with a local land trust to preserve land; or any other method acceptable to USFWS.

- If USFWS determines that listing of western spadefoot under ESA is not warranted, or the species is not listed prior to project completion, then the above measures related to consultation with USFWS would not be applicable.

Documentation of compliance with this mitigation measure and the coordination/consultation process with CDFW shall be provided to the City of Roseville before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2a would reduce potential impacts on western spadefoot to a **less-than-significant** level by requiring focused surveys for the species and implementation of measures to avoid injury or mortality of western spadefoot if detected, biological monitoring, and relocation of individuals by a qualified biologist with an appropriate CDFW Scientific Collecting Permit.

NORTHWESTERN POND TURTLE

Aquatic habitat suitable for northwestern pond turtle is present in Pleasant Grove Creek and the Pleasant Grove Creek First North Tributary (University Creek) (when water is present). Northwestern pond turtles use upland habitat for basking and egg-laying, sometimes a significant distance from aquatic habitat (i.e., up to 0.3 miles). Stream bank habitat adjacent to the riverine features on the project site as well as uncultivated areas in the understory of the valley oak riparian woodland habitat adjacent to these features may provide upland habitat suitable for northwestern pond turtles. The agricultural land on the project site likely does not provide upland habitat suitable for this species because the land is disturbed and regularly disked.

Most project activities would occur within the agricultural land on the project site and would avoid Pleasant Grove Creek and associated valley oak riparian woodland habitat. However, proposed development directly south of the Pleasant Grove Creek and at the northern most portion of the project site may encroach into the valley oak riparian woodland habitat adjacent to both riverine features, and construction of the bridge across Pleasant Grove Creek may result in disturbance of habitat adjacent to Pleasant Grove Creek. Construction activities associated with these project features may include ground disturbance and vegetation removal. As a result, these activities could result in loss of or injury to northwestern pond turtle if present within the project site. Loss or injury of northwestern pond turtles would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2b: Conduct Preconstruction Surveys for Northwestern Pond Turtle, Implement Avoidance Measures, and Relocate Individuals

- Prior to implementation of project activities within valley oak riparian woodland habitat on the project site, a qualified biologist familiar with the life history of northwestern pond turtle and experienced in performing surveys for northwestern pond turtle shall conduct a focused survey of habitat suitable for the species within the project site. If aquatic habitat potentially suitable for the species is present within a project site (e.g., streams, ponds, drainages), upland habitat within approximately 1,600 feet of this aquatic habitat shall also be surveyed. The qualified biologist shall inspect the project site for northwestern pond turtles as well as burrow habitat suitable for the species.

- If northwestern pond turtles are not detected during the focused survey, the qualified biologist shall submit a report summarizing the results of the survey to the project applicant and the City of Roseville, and further mitigation will not be required.
- If northwestern pond turtles are detected, a no-disturbance buffer of at least 100 feet shall be established around any identified nest sites or overwintering sites. A qualified biologist with an appropriate CDFW Scientific Collecting Permit that allows handling of reptiles shall be present during initial ground disturbance activities and shall inspect the project site before initiation of project activities. If northwestern pond turtles are detected, the qualified biologist shall move the turtles downstream and out of harm's way.
- Future maintenance activities (i.e., activities to maintain functional and structural integrity) associated with the bridge crossing Pleasant Grove Creek shall be subject to the City of Roseville's existing Streambed Alteration Agreement with CDFW for routine maintenance activities, which requires CDFW notification prior to implementation of maintenance activities, pre-activity surveys for special-status species, biological monitoring, limits to vegetation removal within and adjacent to waterways, and other avoidance measures to reduce impacts on natural resources.
- Because northwestern pond turtle is proposed for listing under ESA, if the species is listed before the completion of project construction activities that could result in injury or mortality to turtles (i.e., ground disturbance, grading, land conversion), then the project applicant may be required to consult with USFWS under Section 7 or Section 10 of ESA. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site. If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the measures described above, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS.
    - Any conservation measures developed in coordination with USFWS during the course of formal or informal consultation under Section 7 or during Section 10 consultation would supersede the measures listed here.
    - Such conservation measures could include, but would not be limited to , seasonal work restrictions for initial ground disturbance, preconstruction surveys by a qualified biologist, installation of wildlife exclusion fencing, biological monitoring, and working environmental awareness training. Additional measures could include preservation, restoration , or enhancement of habitat on- or off-site; purchase of habitat credits from an agency-approved mitigation/conservation bank; work with a local land trust to preserve land; or any other method acceptable to USFWS.
- If USFWS determines that listing of northwestern pond turtle under ESA is not warranted, or the species is not listed prior to project completion, then the above measures related to consultation with USFWS would not be applicable.
- Documentation of compliance with this mitigation measure and the coordination/consultation process with CDFW and USFWS shall be provided to the City of Roseville before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2b would reduce potential impacts on northwestern pond turtle to a **less-than-significant** level by requiring focused surveys for the species, implementation of measures to avoid injury or mortality of northwestern pond turtles if detected, and relocation of individual turtles by a qualified biologist with an appropriate CDFW Scientific Collecting Permit.

BURROWING OWL

The nearest documented occurrence of burrowing owl is approximately 1.4 miles southeast of the project site and was detected in 2003 (CNDDB 2025a), and burrowing owl was also recently seen in the Amoruso Ranch Specific Plan area northeast of the project site. The agricultural land on the project site likely does not provide habitat suitable for this species because the land is disturbed and regularly disked. However, the earthen berms along the edges of the agricultural land contain California ground squirrel burrows, which may provide burrow habitat suitable for burrowing

owls. While no evidence of burrowing owl occupation (i.e., pellets, scat, prey items) were observed during the August 6, 2021, reconnaissance-level survey by Ascent or the February 23, 2022, July 21, 2022, or September, 2025 surveys by Barnett Environmental, burrowing owls may have occupied the project site in the interim or could occupy the project site in the future.

Project implementation would include ground disturbance and vegetation clearing, which would require the use of vehicles and heavy machinery. These activities could result in inadvertent disturbance, injury, or mortality of burrowing owl. If present, burrowing owls could be disturbed due to the presence of equipment and personnel and could be inadvertently injured or killed by heavy machinery or vehicles or could abandon active nests resulting mortality of chicks or eggs. Active burrows could be inadvertently crushed and destroyed, if present, potentially resulting in the loss of eggs or chicks. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2c: Conduct Preconstruction Surveys for Burrowing Owls and Implement Protective Buffers

- A qualified biologist familiar with burrowing owls shall conduct surveys in areas of suitable habitat on and within 1,640 feet (500 meters) of the project site. Inaccessible areas (e.g., adjacent private property) will not be surveyed directly, but the biologist may use binoculars or a spotting scope to survey these areas. A minimum of four surveys shall be conducted to determine whether burrowing owls occupy the site. Surveys shall be conducted according to Appendix D of the 2012 *Staff Report on Burrowing Owl Mitigation* prepared by the California Department of Fish and Game (now CDFW) (CDFW 2012), or any subsequent updated guidance. If feasible, at least one survey should be conducted between February 15 and April 15 and the remaining surveys should be conducted between April 15 and July 15, at least three weeks apart. Because burrowing owls may recolonize a site after only a few days, one of the surveys, or an additional survey, shall be conducted no more than 14 days before initiating ground disturbance activities to verify that take of burrowing owl would not occur.
    - If no burrowing owls are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and the City of Roseville, and no further mitigation shall be required.
    - If a burrow occupied by a burrowing owl is found during the surveys, the project applicant shall establish and maintain a buffer around the occupied burrow and any identified satellite burrows (i.e., non-nesting burrows that burrowing owls use to escape predators or move young into after hatching) to prevent take of the burrowing owls.
        - During the non-breeding season (September 1 through January 31), the minimum buffer distance shall be 164 feet (50 meters). During the breeding season (February 1 to August 31), the minimum buffer distance shall be 1,640 feet (500 meters).
        - The buffer may be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative buffer shall not result in take of burrowing owls because of particular site features (e.g., topography, natural line-of-sight barriers), level of project disturbance, or other considerations. If the buffer is reduced, a qualified biologist shall monitor the behavior of the burrowing owls during all project activities within 1,640 feet of the burrow. If the owls are disturbed or show signs of agitation (e.g., vocalizations, bill snaps, fluffing feathers to increase body size appearance, drooping wings and rotating them forward, crouching and weaving back and forth) by the project activities, the biologist shall have the authority to halt the activities and reestablish a buffer consistent with the first bullet until the agitated behavior ceases and normal behavior resumes.
        - The buffer shall remain in place around the occupied burrow and associated satellite burrows until a qualified biologist has determined through noninvasive methods that the burrows are no longer occupied by burrowing owls. A previously occupied burrow will be considered unoccupied if surveys demonstrate that no owls have used the burrow for seven consecutive days.
        - Locations of burrowing owls detected during surveys shall be reported to the CNDDB.

- If implementation of a buffer to prevent take of burrowing owl is not feasible, the project applicant shall consult with CDFW and obtain an Incidental Take Permit (ITP) prior to commencing project related ground-disturbing activities. The impacts of taking burrowing owls shall be minimized and fully mitigated.
- The project applicant shall compensate for loss of burrowing owl by establishing permanent protection and perpetual management on land that provides burrowing owl habitat. Habitat management lands for burrowing owl may be established by conservation easement or fee title, or credits may be purchased from a CDFW-approved conservation or mitigation bank. The compensatory mitigation shall satisfy permit conditions and all other permit conditions shall be implemented.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2c would reduce potential impacts on burrowing owl to a **less-than-significant** level by requiring a take avoidance survey for burrowing owl, implementation of measures to avoid injury or mortality of burrowing owls and destruction of active burrows if detected, and compensation if burrows cannot be avoided.

SPECIAL-STATUS BIRDS, COMMON RAPTORS, AND OTHER COMMON NATIVE BIRDS

Eleven additional special-status birds have potential to occur on the project site: tricolored blackbird, short-eared owl, Swainson's hawk, black tern, northern harrier, western yellow-billed cuckoo, white-tailed kite, loggerhead shrike, song sparrow ("Modesto" population), and yellow-headed blackbird. Nesting habitat for most of these special-status bird species is only present within the valley oak riparian woodland habitat on the project site; however, Swainson's hawks could also nest within other large trees elsewhere on the project site. Additionally, agricultural habitat on the project site may provide foraging habitat for special-status birds (e.g., Swainson's hawk, yellow-headed blackbird) if nests are on or near the project site. Other common raptor species could also nest in trees on the project site, including red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), great horned owl (*Bubo virginianus*), and Cooper's hawk (*Accipiter cooperi*). Other common native birds could also nest on the project site within trees, shrubs, brambles (e.g., Himalayan blackberry), or on the ground (i.e., within the valley oak riparian woodland habitat). While not special-status species, common raptors and other common native birds and their nests are protected under California Fish and Game Code and the federal MBTA.

Most project activities would occur within the agricultural land on the project site and would avoid the valley oak riparian woodland habitat. However, proposed development directly south of the Pleasant Grove Creek and at the northern most portion of the project site may encroach into the valley oak riparian woodland habitat on the project site, and construction of the bridge across Pleasant Grove Creek may result in disturbance of this habitat adjacent to Pleasant Grove Creek. Project implementation elsewhere on the project site would include ground disturbance, vegetation clearing, and tree removal which would require the use of equipment, vehicles, and heavy machinery. These activities could result in inadvertent disturbance, injury, or mortality of special-status and common native birds. If present, special-status and common native birds could be disturbed due to the presence of equipment and personnel potentially leading to nest abandonment. Active nests could be inadvertently removed and destroyed during vegetation and tree removal activities, if present, potentially resulting in the loss of eggs or chicks. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2d: Conduct Focused Surveys for Special-Status Birds, Nesting Raptors, and Other Native Nesting Birds, and Implement Protective Buffers

- To minimize the potential for loss of special-status bird species, raptors, and other native birds, project construction activities (e.g., tree removal, vegetation clearing, ground disturbance, staging) shall be conducted during the nonbreeding season (approximately September 1–January 31, as determined by a qualified biologist), if feasible. If project construction activities are conducted during the nonbreeding season, no further mitigation shall be required.
- Within 14 days before the onset of project construction activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status

birds, other nesting raptors, and other native birds. Surveys shall be conducted within 0.5 miles of the project site for Swainson's hawk; within 0.25 miles for white-tailed kite; within 500 feet of the project site for other special-status birds and common raptors; and within 50 feet of the project site for non-raptor common native bird nests.

- Because the nests of riparian-nesting birds (i.e., black tern, song sparrow ("Modesto" population), tricolored blackbird, and western yellow-billed cuckoo) are small and difficult to find, occupancy of habitat suitable for these species (i.e., riparian woodland) shall be determined by a qualified biologist familiar with the life history of these species and with experience identifying the calls of these species. If special-status riparian-nesting birds are observed calling, exhibiting territorial displays, carrying nest materials, carrying prey, or other signs of breeding behavior, the habitat shall be considered occupied.
- If no nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the project applicant and the City of Roseville, and no further mitigation shall be required.
- If active nests are found, impacts on nesting birds shall be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project construction activity shall not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. An avoidance buffer of a minimum of 0.5 miles shall be implemented for Swainson's hawk and 0.25 miles for white-tailed kites in consultation with CDFW. An avoidance buffer of a minimum of 500 feet shall be implemented for western yellow-billed cuckoo in consultation with USFWS and CDFW and for tricolored blackbird in consultation with CDFW. For other species, a qualified biologist shall determine the size of the buffer for non-raptor nests after a site- and nest-specific analysis. Buffers typically will be 500 feet for other special-status birds and common raptors. Buffer size for non-raptor common bird species shall be determined by a qualified biologist. Factors to be considered for determining buffer size will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed project construction activities. Generally, buffer size for these species will be at least 20 feet. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Any buffer reduction for a special-status species shall require consultation with CDFW. Periodic monitoring of the nest by a qualified biologist during project construction activities shall be required if the activity has potential to adversely affect the nest, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project construction activities, as determined by the qualified biologist.
- If egret or night heron rookeries are found within trees on the project site, an avoidance buffer shall be implemented, the size of which will be determined by a qualified biologist. Buffer size for large rookeries will likely be larger than for single nests due to the number of birds and nests within the rookery. Rookery trees identified on the project site shall be retained permanently.
- Future maintenance activities (i.e., activities to maintain functional and structural integrity) associated with the bridge crossing Pleasant Grove Creek shall be subject to the City of Roseville's existing Streambed Alteration Agreement with CDFW for routine maintenance activities, which requires CDFW notification prior to implementation of maintenance activities, pre-activity surveys for special-status species, biological monitoring, limits to vegetation removal within and adjacent to waterways, and other avoidance measures to reduce impacts on natural resources.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2d would reduce potential impacts on special-status birds, raptors, and other common native nesting birds to a **less-than-significant** level by requiring focused surveys for nesting birds and implementation of measures to avoid disturbance, injury, or mortality of the species if nests are detected.

SPECIAL-STATUS FISH

One special-status fish species—Sacramento hitch—may occur within Pleasant Grove Creek. Additionally, while the project site does not contain aquatic habitat suitable for most special-status fish species, Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, and the Pleasant Grove Creek First North Tributary (University Creek) are hydrologically connected to watercourses occupied by these species (Table 3.7-3). Most project activities would occur a sufficient distance from these features; however, the project would also include construction of a bridge across Pleasant Grove Creek and the Pleasant Grove Creek Bypass Channel, which would include in-water work. As described in Section 3.12, "Hydrology and Water Quality," the project applicant would be required to develop and implement a stormwater pollution prevention plan (SWPPP) and best management practices (BMPs) and comply with the City's Urban Stormwater Quality Management and Discharge Control Ordinance, West Placer Storm Water Quality Design Manual, Placer County Flood Control and Water Conservation District's Stormwater Management Manual, and Section 16.20.040 of the Roseville Municipal Code that include measures to control, prevent, remove, or reduce pollution. These measures would reduce project impacts on water quality.

Bridge construction would include installation of 24-inch diameter bridge supports within the Pleasant Grove Creek channel, within the Pleasant Grove Creek Bypass Channel, within the valley oak riparian habitat on the south side of Pleasant Grove Creek, and in other upland areas adjacent to Pleasant Grove Creek. Additional ground disturbance would occur on either side of Pleasant Grove Creek, including within the valley oak riparian habitat on the north side of Pleasant Grove Creek. Installation of bridge supports could result in direct injury or mortality of special-status fish, if present. Ground disturbance associated with construction of the bridge or other construction activities could result in discharge of silt into Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, or the Pleasant Grove Creek First North Tributary (University Creek), which could result in adverse effects on survival of special-status fish, if present. Additionally, discharge of silt into these features may temporarily affect in-stream water quality and habitat, which could potentially result in indirect downstream effects on special-status fish otherwise not expected to occur on the project site (i.e., salmonids). Project construction and operation that may affect in-stream water quality and habitat could potentially result in indirect effects on steelhead and Chinook salmon habitat downstream of the project site. The stream and its water quality could be indirectly affected by grading, trenching, and creation of impervious surfaces proposed for adjacent uplands and encroachment of developed land uses. Direct and indirect adverse effects on special-status fish would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2e: Implement Protection Measures for Special-Status Fish

The project applicant shall implement the following protection measures before and during project construction, including construction of the bridge over Pleasant Grove Creek:

- If Mitigation Measure 3.7-2a is not feasible, in-channel construction activities within Pleasant Grove creek shall take place outside of the steelhead – Central Valley DPS migration and late-spawning season (December 1-April 30; Barnett Environmental 2025, 2026).
- In-channel construction activities within Pleasant Grove Creek shall be limited to daylight hours during weekdays, leaving a nighttime and weekend period of passage for special-status fish species.
- Silt curtains shall be implemented for all in-channel construction activities.
- Water quality shall be evaluated during and after all in-channel construction activities. The performance criteria shall be no degradation of downstream water quality compared to upstream water quality. Water quality shall be evaluated by a qualified environmental monitor using appropriate qualitative or quantitative measurements, including turbidity and temperature. Remedial measures shall be implemented if downstream water quality is degraded. Remedial measures shall include the following:
  - modification or suspension of in-water construction activities as appropriate;
  - installation of additional sediment control devices; and
  - additional monitoring to evaluate the water quality after measures are implemented.

- Silt fencing shall be installed as appropriate along the edges of the Pleasant Grove Creek riparian corridor, the Pleasant Grove Creek Bypass Channel, and the Pleasant Grove Creek First North Tributary (University Creek) to prevent excess fill from entering the water. All silt fences shall be maintained and checked for efficacy as necessary, but not less frequently than once per week.
- Future maintenance activities (i.e., activities to maintain functional and structural integrity) associated with the bridge crossing Pleasant Grove Creek shall be subject to the City of Roseville's existing Streambed Alteration Agreement with CDFW for routine maintenance activities, which requires CDFW notification prior to implementation of maintenance activities, pre-activity surveys for special-status species, biological monitoring, limits to vegetation removal within and adjacent to waterways, and other avoidance measures to reduce impacts on natural resources.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2e would reduce potential direct and indirect (i.e., downstream) impacts on special-status fish to a **less-than-significant** level by avoiding the late-fall spawning season and requiring implementation of protection measures to reduce direct effects on special-status fish and to prevent discharge of silt into Pleasant Grove Creek during project construction, including construction of the bridge over Pleasant Grove Creek.

CONSERVANCY FAIRY SHRIMP, VERNAL POOL FAIRY SHRIMP, AND VERNAL POOL TADPOLE SHRIMP

Vernal pool branchiopods, including special-status fairy shrimp and tadpole shrimp species, may occur in vernal pool wetlands identified in the off-site portion of the PUE. Vernal pool tadpole shrimp is listed as endangered under ESA, and vernal pool fairy shrimp is listed as threatened under ESA. These species are endemic to vernal pools, primarily in the Central Valley of California. Installation of utilities in the PUE may remove vernal pool habitat suitable for these species or result in loss (i.e. take) of these species. Direct and indirect adverse effects on Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2f: Conduct Pre-construction Vernal Pool Avoidance Surveys, Protocol-Level Branchiopod Surveys, and Compensate for Loss of Vernal Pool Branchiopods

- Prior to implementation of project activities in the PUE, wetland and vernal pool habitat in the PUE area on the project site shall be delineated and a no-disturbance buffer of at least 100 feet will be implemented, as determined by a qualified biologist. No project activities, including staging of equipment, will occur within the no-disturbance buffer, if feasible.
- If the no-disturbance buffer is not feasible, a qualified biologist familiar with vernal pool branchiopods shall conduct a focused survey for conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, following *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017), or any subsequently published guidelines. Protocol-level surveys for branchiopods require authorization from the USFWS Sacramento Fish and Wildlife Office and a Section 10(a)(1)(A) permit.
- The applicant shall report all survey results to the City of Roseville and USFWS. If no vernal pool branchiopods are identified, no further mitigation shall be required.
- If vernal pool branchiopods are identified on the project site, the applicant shall initiate Section 7 consultation with USFWS. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site. If it is determined, in consultation with USFWS, that take of these species will occur as a result of project activities, then the project applicant may be required to obtain incidental take authorization pursuant to Section 7 of ESA. The project shall not proceed until a Biological Opinion is issued by USFWS.
    - Any conservation measures developed in coordination with USFWS during formal or informal consultation under Section 7 shall be implemented.

- Additional measures may include preservation, restoration, or enhancement of habitat on- or off-site; purchase of habitat credits from an agency-approved mitigation/conservation bank; work with a local land trust to preserve land; or any other method acceptable to USFWS at a no-net-loss level.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2f would reduce impacts on Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp to a **less-than-significant** level by requiring implementation of protection measures, and compensation for loss of vernal pool branchiopods where direct or indirect impacts on the species are unavoidable.

CROTCH'S BUMBLE BEE

Crotch's bumble bee, along with three other bumble bee species, was designated as a candidate for listing as endangered under CESA by the California Fish and Game Commission on May 31, 2022. In June of 2023, CDFW released *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*, which included survey and mitigation guidance for the four candidate species, as well as updated current range maps for each species (CDFW 2023). Crotch's bumble bee has recently undergone declines in abundance and distribution and is no longer present in much of its historic range (Xerces Society 2018); however, the current range of the species includes the project site (CDFW 2023).

Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and overwintering site suitable for the queens. In California, Crotch's bumble bees typically inhabit open grassland and scrub habitats (Xerces Society 2018). Crotch's bumble bees nest underground and likely use, at least in part, old rodent burrows (Williams et. al. 2014; Xerces Society 2018). Some bumble bees favor nest sites near woody transitional habitats and nest in holes or crevices in leaf litter, beneath woody debris, at the base of a tree, in herbaceous plant debris, or near grass clumps (Lanterman et al. 2019). Overwintering likely occurs primarily in woodlands (USFWS 2021). Overwintering queens may prefer shaded areas near trees in areas without dense vegetation and north-facing slopes (Liczner and Colla 2019; Williams et al. 2019). Bumble bees in California have been documented overwintering under 1-2 inches of duff, between leaf/needle litter and mineral soil (Williams et al. 2014). The project site contains habitat suitable for Crotch's bumble bee nesting, foraging, and overwintering. Project activities that could result in loss (i.e., take) of Crotch's bumble bees include ground disturbance and vegetation removal on the project site and the PUE. Loss of Crotch's bumble bees would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2g: Conduct Focused Surveys for Crotch's Bumble Bee and Implement Avoidance Measures

- Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between August 15 and March 15, if feasible, to avoid impacts on nesting Crotch's bumble bees.
- Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment and focused survey for Crotch's bumble bee before the start of ground-disturbing activities. Surveys shall be conducted when Crotch's bumble bee is most likely to be identified, typically April through August (e.g., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and the City of Roseville no fewer than 7 days before construction begins.
- The applicant shall submit a survey report to CDFW within 1 month of survey completion if Crotch's bumble bees are detected, and shall notify CDFW and Placer County within 24 hours if Crotch's bumble bees are detected.

- If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:
- Protective buffers shall be implemented around active nest colonies or overwintering queens until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet.
- If impacts on Crotch's bumble bees cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP.

Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to the City of Roseville before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2g would reduce the potential impact on Crotch's bumble bee to a **less-than-significant** level by limiting initial ground disturbance work to August 15 to March 15, if feasible, conducting focused surveys for bumble bees, and implementing measures to avoid mortality of the Crotch's bumble bee if nests or overwintering queens are detected.

MONARCH

The project site is located outside of the overwintering range of monarch; however, grassland habitat on the project site may provide breeding and foraging habitat suitable for monarch. If milkweed (*Asclepias* spp.) plants are present on the project site, these plants may host breeding monarchs and associated monarch eggs or caterpillars. Loss of monarchs, monarch eggs, or monarch caterpillars would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2h: Conduct surveys for Milkweed Plants, Monarch Eggs, and Monarch Caterpillars, and Implement Avoidance Measures

- If construction activities (e.g., ground disturbance, vegetation removal, staging) on the project site occur during the period when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late October), a qualified biologist shall survey the project site for milkweed plants. If milkweed plants are found, a qualified biologist shall inspect the milkweed plants for the presence of monarch eggs or caterpillars no more than 14 days before plant removal. If monarch eggs or caterpillars are detected, the milkweed plants shall be avoided until they are no longer being used by monarch caterpillars, as confirmed by a qualified biologist, if feasible. If no eggs or caterpillars are detected, no additional protection measures shall be necessary.

Documentation of compliance with this mitigation measure shall be provided to the City of Roseville before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2h would reduce the potential impact on monarch to a **less-than-significant** level by requiring focused surveys for milkweed host plants and implementation of measures to avoid loss of monarch eggs or caterpillars if they are detected through avoidance of the plants.

NORTHERN CALIFORNIA RINGTAIL

Large trees within the valley oak riparian woodland habitat on the project site may provide den habitat suitable for ringtail (i.e., large cavities). Most project activities would occur within the agricultural land on the project site and would avoid Pleasant Grove Creek and associated valley oak riparian woodland habitat. However, construction of the bridge across Pleasant Grove Creek and encroachment by buildings and other development may result in disturbance of this habitat adjacent to Pleasant Grove Creek and potential removal of trees. While project activities

are not expected to result in significant modification of the valley oak riparian woodland habitat such that the habitat is no longer suitable for ringtail, removal of trees could result in direct loss of an active den and potential injury or mortality of ringtail kits. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2i: Conduct Focused Surveys for Ringtail Dens and Implement Avoidance Measures

- To minimize the potential for loss of ringtail and active ringtail dens, tree removal within the valley oak riparian woodland habitat on the project site shall be conducted outside of the ringtail breeding season (not well defined, but likely approximately March 1 to July 31), if feasible.
- Within seven days before initiation of tree removal within the valley oak riparian woodland habitat during the ringtail breeding season, a qualified biologist with familiarity with ringtail shall conduct a focused survey for potential ringtail dens (e.g., hollow trees, snags, rock crevices) within the trees planned for removal. The qualified biologist shall identify sightings of individual ringtails, as well as potential dens.
- If individuals or potential or occupied dens are not found, the qualified biologist shall submit a report summarizing the results of the survey to the project applicant and the City of Roseville, and further mitigation shall not be required.
- If ringtails are identified or if potential dens are located in the trees planned for removal, an appropriate method, based on current professional standards, shall be used by the qualified wildlife biologist to confirm whether a ringtail is occupying the den. This may include use of remote field cameras, track plates, or hair snares. Other devices, such as a fiber optic scope, may be utilized to determine occupancy.
    - If no ringtail occupies the potential den, the tree may be removed.
    - If a den is found to be occupied by a ringtail, the tree may not be removed, and a no-disturbance buffer shall be established around the occupied den. The no-disturbance buffer shall include the den tree plus a suitable buffer as determined by the biologist in coordination with CDFW. Project activities in the no-disturbance buffer shall be avoided until the den is unoccupied as determined by the qualified wildlife biologist in coordination with CDFW.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2i would reduce potential impacts on ringtail to a **less-than-significant** level by requiring focused surveys for ringtail dens prior to tree removal in valley oak riparian woodland habitat and implementation of no-disturbance buffers around active dens in consultation with CDFW.

PALLID BAT AND WESTERN RED BAT

Large trees within the valley oak riparian woodland habitat and in small groves elsewhere on the project site may provide roost habitat suitable for pallid bat and western red bat (i.e., large cavities, foliage). Most project activities would occur within the agricultural land on the project site and would avoid Pleasant Grove Creek and associated valley oak riparian woodland habitat. However, construction of the bridge across Pleasant Grove Creek and encroachment by buildings and other development may result in disturbance of this habitat adjacent to Pleasant Grove Creek and potential removal of trees. Additionally, other large trees on the project site may be removed during construction of buildings. Removal of trees could result in disturbance, injury, or mortality of pallid bats and western red bats if roosts are present. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-2j: Conduct Focused Bat Surveys and Implement Avoidance Measures

- Prior to tree removal activities, a qualified biologist with familiarity with bats and bat ecology and experienced in conducting bat surveys shall conduct surveys for bat roosts in large trees on the project site.

- If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the project applicant and the City of Roseville, and no further study will be required.
- If evidence of bat roosts is observed, the species and number of bats using the roost shall be determined. Bat detectors shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- A no-disturbance buffer of 250 feet shall be established around active pallid bat or western red bat roosts, and project construction activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist.
- If roosts of pallid bat or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in consultation with CDFW before implementation. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) shall be replaced in consultation with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during consultation with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree may be removed.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2j would reduce potential impacts on pallid bat and western red bat to a **less-than-significant** level by requiring focused surveys for bat roosts, implementation of no-disturbance buffers around active special-status bat roosts, and consultation with CDFW if special-status bat roosts would be removed.

Impact 3.7-3: Result in Degradation or Loss of Riparian Habitat or Other Sensitive Natural Communities

Project implementation may include ground disturbance, vegetation removal, and direct removal of riparian habitat adjacent to Pleasant Grove Creek, Pleasant Grove Creek First North Tributary (University Creek), and wetlands identified on the project site, which could result in the degradation or loss of riparian and vernal pool habitat. This would be a **potentially significant** impact.

The project site contains approximately 8.7 acres of valley oak riparian woodland habitat associated with Pleasant Grove Creek and the Pleasant Grove Creek First North Tributary (University Creek). In addition to being riparian habitat, valley oak riparian forest and woodland is a CDFW-designated sensitive natural community. Most project activities would occur within the agricultural land on the project site and would avoid the valley oak riparian woodland habitat. However, construction of the bridge across Pleasant Grove Creek and encroachment by buildings and other development may result in removal or disturbance of riparian habitat adjacent to Pleasant Grove Creek. Additionally, proposed development directly south of the Pleasant Grove Creek and at the northernmost portion of the project site may include ground disturbance and vegetation removal, and may encroach into the valley oak riparian woodland habitat adjacent to both riverine features. Degradation (e.g., reduction of vegetation cover, trampling, alteration of root structure, anthropogenic noise and light, human trespass) or removal of the valley oak riparian woodland habitat on the project site would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-3: Provide Stream Setbacks, Best Management Practices, and Compensate for Unavoidable Loss of Riparian Habitat

The project applicant shall implement the following protection measures prior to implementation of project activities (e.g., construction, staging) within 50 feet of valley oak riparian woodland habitat on the project site, including construction of the bridge over Pleasant Grove Creek:

- Setbacks shall be established around all valley oak riparian woodland habitat on the project site and shall be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist and no project activities (e.g., vegetation removal, ground disturbance, staging) shall occur within these areas. Setback distances shall be determined by a qualified biologist in consultation with the appropriate agency (e.g., CDFW), but will generally be a minimum of 50 feet. Foot traffic by personnel shall also be limited in these areas to prevent the introduction of invasive or weedy species or inadvertent crushing of plants and soil compaction. Periodic inspections during construction shall be conducted by a qualified biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.
- If project implementation cannot avoid and thus may adversely affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under California Fish and Game Code Section 1602, the following measures shall apply.
  - A Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1602 of the California Fish and Game Code. If proposed project activities are determined to be subject to CDFW jurisdiction, the project applicant shall abide by the measures to protect fish and wildlife resources required by any executed agreement prior to any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.
  - The project applicant shall compensate for the loss of riparian habitat and habitat function and value of this habitat by:
    - restoring riparian habitat function and value within the project site;
    - restoring degraded riparian habitat outside of the project site;
    - purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
    - preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function (at least 1:1).
  - The project applicant shall prepare and implement a Compensatory Mitigation Plan that will include the following:
    - For preserving existing riparian habitat outside of the project site in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project applicant will provide evidence in the plan that the necessary mitigation has been implemented or that the project applicant has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity.
    - For restoring or enhancing riparian habitat within the project site or outside of the project site, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
    - Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project applicant (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.
- Fencing and signage shall be installed between the development footprint and the riparian habitat associated with Pleasant Grove Creek and the Pleasant Grove Creek First North Tributary (University Creek) to discourage trespassing into stream and riparian habitat. Fencing design shall be at the discretion of the project applicant and may include permeable, symbolic fencing (e.g., post and cable).

- Future maintenance activities (i.e., activities to maintain functional and structural integrity) associated with the bridge crossing Pleasant Grove Creek would be subject to the City of Roseville's existing Streambed Alteration Agreement with CDFW for routine maintenance activities, which requires CDFW notification prior to implementation of maintenance activities, pre-activity surveys for special-status species, biological monitoring, limits to vegetation removal within and adjacent to waterways, and other avoidance measures to reduce impacts on natural resources.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-3 would reduce potential impacts on valley oak riparian woodland habitat to a **less-than-significant** level by requiring implementation of avoidance measures, compensation for permanent loss of these to offset the loss with a minimum 1:1 ratio, potentially including a streambed alteration agreement with CDFW, and installation of fencing and signage to prevent trespassing into this habitat after project construction is completed.

Impact 3.7-4: Result in Degradation or Loss of State or Federally Protected Wetlands

Project implementation would include ground disturbance, vegetation removal, and direct removal of riparian habitat adjacent to Pleasant Grove Creek and wetlands previously identified in the off-site portion of the PUE which could result in inadvertent discharge of silt into Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, the Pleasant Grove Creek First North Tributary (University Creek), and fill of the identified wetlands. Discharge of silt into these features may result in adverse effects on water quality in the creek, and fill of wetlands would remove or degrade these features which would be a **potentially significant** impact.

Aquatic habitat on the project site includes Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, and the Pleasant Grove Creek First North Tributary (University Creek). These riverine features would likely be considered waters of the United States and waters of the state. Additionally, 14 wetlands with vegetation assemblages associated with vernal pools have been previously identified in the off-site portion of the PUE. Project implementation would include construction of a bridge over Pleasant Grove Creek and the Pleasant Grove Creek Bypass Channel.

Bridge construction would include installation of 24-inch diameter bridge supports within the Pleasant Grove Creek channel, within the Pleasant Grove Creek Bypass Channel, within the valley oak riparian habitat on the south side of Pleasant Grove Creek, and in other upland areas adjacent to Pleasant Grove Creek. Additional ground disturbance would occur on either side of Pleasant Grove Creek, including within the valley oak riparian habitat on the north side of Pleasant Grove Creek. Installation of bridge supports and ground disturbance adjacent to Pleasant Grove Creek and the Pleasant Grove Creek Bypass Channel during bridge construction could result in modification of the bed, bank, or channel of these features or discharge silt into these features, which could result in adverse effects on water quality. Ground disturbance associated with other construction activities near Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, the Pleasant Grove Creek First North Tributary, and the identified wetlands in the PUE could also result in discharge of silt into the creek and fill of vernal pool habitats, which could result in adverse effects on water quality or removal of wetlands. Modifications to the bed, bank, or channel of Pleasant Grove Creek and the Pleasant Grove Bypass Channel, discharge of silt into these features or the Pleasant Grove Creek First North Tributary (University Creek), or fill of wetlands would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-4a: Implement Mitigation Measures 3.7-2e and 3.7-3

The project applicant shall implement Mitigation Measures 3.7-2e and 3.7-3.

Mitigation Measure 3.7-4b: Identify State or Federally Protected Wetlands, Implement Avoidance Measures, and Obtain Permits for Unavoidable Impacts on Wetlands

The following measures shall be implemented prior to initiation of bridge construction activities:

- The project applicant shall retain a qualified biologist, hydrologist, or wetland ecologist to prepare a formal delineation of the boundaries of state or federally protected wetlands and other waters within the project site according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the Arid West regional supplement (USACE 2008). The qualified biologist shall also delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (SWRCB 2019). This delineation report shall be submitted to USACE, and a preliminary jurisdictional determination shall be requested.
- Where state or federally protected wetlands can be avoided, the boundary of the delineated ordinary high-water mark shall be demarcated with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). Project activities (e.g., ground disturbance, vegetation removal, staging) shall be prohibited within the established boundary. A qualified biologist shall periodically inspect the materials demarcating the buffer to confirm that they are intact and visible, and wetland impacts are being avoided.
- Authorization for fill of waters of the United States associated with bridge construction (e.g., constructing bridge support structures) and other project activities, including utility installation in the PUE shall be secured from USACE through the Section 404, Section 10, and Section 408 permitting processes, as well as through CVFPB. Any state or federally protected wetlands that would be affected by the project shall be replaced or restored on a no-net-loss basis in accordance with the applicable USACE mitigation guidelines in place at the time of construction. In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For any activity that may result in discharges of dredged or fill material to waters of the state that may not be covered by the 401 Water Quality Certification, Panattoni shall secure a permit from the Central Valley RWQCB and provide compensatory mitigation for permanent loss of any waters of the state in accordance with *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (California Water Boards 2019), such that the project would not result in a net loss of overall abundance, diversity, and condition of aquatic resources within the affected watershed based on a watershed assessment using an assessment method approved by the permitting authority (e.g., Central Valley RWQCB or California Water Resources Control Board).The project applicant shall comply with waste discharge requirements as described in Section 3.12, "Hydrology and Water Quality."
- The project applicant shall notify CDFW before commencing activity that may divert the natural flow or otherwise alter the bed, bank, or riparian corridor of any stream protected pursuant to Section 1602 of the Fish and Game Code. If project activities trigger the need for a Streambed Alteration Agreement, the proponent shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct project construction activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways or in riparian habitats associated with those waterways. These measures may include but not be limited to demarcation of the construction area, biological monitoring, environmental awareness training for construction crews, and compensatory measures (e.g., restoration, long-term habitat management). Compensatory mitigation for impacts on state or federally protected wetlands, described in the prior bullet, may count towards compensation for loss of fish and wildlife resources protected pursuant to CDFW's jurisdiction pursuant to Section 1602 of the Fish and Game Code.
- The project applicant shall obtain a permit for the installation of utility infrastructure in the PUE, or shall obtain an amendment to existing Army Permit #200200666 which previously permitted work in the PUE. The new permit or amendment shall be obtained through USACE in coordination with USFWS and additional agencies as required. The project applicant shall adhere to all requirements of the new or amended permit, which may include the mitigation of any wetland habitat loss in the PUE through the purchase of equivalent wetland credits at an approved mitigation bank within the project's service area.

Significance after Mitigation

Implementation of Mitigation Measures 3.7-4a and 3.7-4b would reduce potential direct and indirect (i.e., downstream) impacts on Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, the Pleasant Grove Creek First North Tributary (University Creek), and wetlands in the PUE to a **less-than-significant** level by requiring

protection measures to prevent discharge of silt into these features during construction of the bridge and other project features, implementation of avoidance measures for impacts on riparian habitat along Pleasant Grove Creek, delineation of wetlands on the project site, and permitting for unavoidable impacts.

Impact 3.7-5: Interfere with Wildlife Movement Corridors or Impede the Use of Wildlife Nurseries

Project implementation could result in permanent and temporary impacts on wildlife movement from construction of a bridge across Pleasant Grove Creek, including in-channel work and discharge of silt into Pleasant Grove Creek, and/or removal of egret or heron rookery trees, which would be a **potentially significant** impact.

The project site is included in a modeled ECA connecting natural landscape blocks to the north and south (Figure 3.7-3). The modeled ECA within the project site is considered "less permeable" than adjacent ECAs in uncultivated, vernal pool grassland complex habitats, meaning that the area may not function as a high-quality wildlife movement corridor for some wildlife species (Figure 3.7-3; Spencer et al. 2010). The undeveloped nature of the project site likely supports movement of wildlife; especially Pleasant Grove Creek and the valley oak riparian woodland habitat associated with the creek. While wildlife species likely move through the agricultural land on the project site, this land is considered lower quality wildlife habitat than Pleasant Grove Creek.

Project implementation would include construction of a bridge across Pleasant Grove Creek. Bridge construction would include installation of 24-inch diameter bridge supports within the Pleasant Grove Creek channel, within the Pleasant Grove Creek Bypass Channel, within the valley oak riparian habitat on the south side of Pleasant Grove Creek, and in other upland areas adjacent to Pleasant Grove Creek. Additional ground disturbance would occur on either side of Pleasant Grove Creek, including within the valley oak riparian habitat on the north side of Pleasant Grove Creek. Construction of the bridge and installation of the bridge supports would result in a new, permanent feature within Pleasant Grove Creek.

While bridge supports within the creek may impede or change the movement patterns of some wildlife species (e.g., fish, waterfowl), construction of the bridge would not constitute an impassible barrier to wildlife movement along Pleasant Grove Creek, eliminate the corridor, or cause the habitat to become isolated or unusable. Construction of the bridge may also result in temporary impacts on wildlife movement during construction, including in-channel work and discharge of silt into the creek, which could result in adverse effects on water quality. This would be a **potentially significant** impact.

Based on historic aerial imagery, rookeries likely associated with snowy egrets, great egrets, or black-crowned night herons are present in trees within the Al Johnson Wildlife Area approximately 0.17 miles west of the project site and may be present within trees in the valley oak riparian woodland habitat on the project site (Figure 3.7-1). Most project activities would occur within the agricultural land on the project site and would avoid the valley oak riparian woodland habitat. However, proposed development directly south of the Pleasant Grove Creek and at the northern most portion of the project site may encroach into the valley oak riparian woodland habitat on the project site, and construction of the bridge across Pleasant Grove Creek may result in disturbance of this habitat adjacent to Pleasant Grove Creek, or could result in removal of rookery trees. These activities could result in inadvertent disturbance to, injury, or mortality of birds in egret or night heron rookeries. If present, these rookeries could be disturbed due to the presence of equipment and personnel potentially leading to abandonment of the rookery. Active egret or night heron nests could be inadvertently removed and destroyed during vegetation and tree removal activities, if present, potentially resulting in the loss of eggs or chicks. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.7-5a: Implement Mitigation Measures 3.7-2d, 3.7-2e, and 3.7-3

The project applicant shall implement Mitigation Measures 3.7-2d, 3.7-2e, and 3.7-3.

Mitigation Measure 3.7-5b: Utilize Wildlife-Friendly Building and Fencing Designs

In addition to lighting standards described in Chapter 2, "Project Description," the project applicant shall implement the following measures:

- Buildings and other permanent structures shall be designed to minimize impacts on wildlife, including disruption to wildlife movement, bird strikes, and wildlife entanglement.
  - Building design shall utilize guidelines regarding building height, materials, external lighting, and landscaping provided in the American Bird Conservancy's "Bird Friendly Building Design" (American Bird Conservancy 2015).
  - Fencing associated with new development shall utilize wildlife-friendly fencing design to minimize the risk of entanglement or impalement of wildlife. The fencing design shall meet, but not be limited to the following standards:
    - Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale, snag, or entrap a leaping animal (e.g., wrought iron fencing with spikes).
    - Allow wildlife to jump over easily without injury. Typically, fences should be no more than 40 inches high on flat ground to allow adult deer to jump over. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass.
    - Allow smaller wildlife to pass under easily without injury or entrapment.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-2d would reduce significant impacts on native wildlife nursery sites (i.e., egret or night heron rookeries) to a **less-than-significant** level by requiring focused surveys for nesting birds, implementation of avoidance buffers, and retention of rookery trees. Implementation of Mitigation Measures 3.7-2e and 3.7-3 would reduce potential direct and indirect (i.e., downstream) impacts on Pleasant Grove Creek, the Pleasant Grove Creek Bypass Channel, and the Pleasant Grove Creek First North Tributary (University Creek) to a **less-than-significant** level by requiring implementation of protection measures to reduce direct effects on special-status fish and to prevent discharge of silt into Pleasant Grove Creek during project construction (including construction of the bridge) and by requiring implementation of avoidance measures for impacts on riparian habitat along Pleasant Grove Creek. Implementation of Mitigation Measure 3.7-5b would reduce significant impacts on wildlife movement corridors to a **less-than-significant** level by requiring wildlife-friendly building, lighting, and fencing design to reduce disruption of wildlife movement and wildlife behavior adjacent to the project site.

Impact 3.7-6: Conflict with Local Policies and Ordinances

The Chapter 19.66 of the City of Roseville Municipal Code, "Tree Preservation," contains requirements for projects that would remove protected trees. Implementation of the project would result in the direct removal or disturbance of trees that may be considered protected under the City of Roseville Municipal Code. This impact would be **potentially significant.**

Project implementation would involve removal of trees that may qualify as protected trees (see the discussion of the City of Roseville Municipal Code in Section 3.7.1, "Regulatory Setting"). In accordance with tree preservation requirements under the City of Roseville Municipal Code, the project applicant obtained an arborist report, and a qualified arborist determined that a total of 324 protected trees are present on the project site (California Tree and Landscape Consulting, Inc. 2021). During project construction, protected trees may be removed from small, isolated groves on the project site and from the valley oak riparian woodland habitat adjacent to Pleasant Grove Creek. Removal of or disturbance of protected trees would conflict with tree preservation requirements in the City of Roseville Municipal Code. This impact would be **potentially significant**.

Mitigation Measures

Mitigation 3.7-6: Remove and Replace Protected Trees Consistent with the Chapter 19.66 of the City of Roseville Municipal Code, "Tree Preservation"

- Prior to the start of construction activities (i.e., ground disturbance, tree removal, staging), the project applicant shall submit an application for a Tree Permit to the City of Roseville as part of the land use permit and/or subdivision application for the discretionary project. The application shall include the arborist report and a site plan map with information as deemed necessary by the City Planning Manager. The site plan map shall include physical characteristics of the project (e.g., property lines, existing and proposed buildings and structures, existing and proposed grades), tree locations, and the location of the protected zone of each protected tree.
- The number, location, species, health, and sizes of all protected trees to be removed, relocated, or replaced shall be identified. This information shall also be provided on a map/design drawing to be included in the project plans.
- Protected trees that would be retained on a project site would be subject to tree preservation measures as outlined in the code, including protective fencing, signing, and modified ground disturbance activities (e.g., trenching with hand tools).
- Protected trees that would be removed would be subject to mitigation. The project applicant shall mitigate for loss of protected trees using one of the following four methods, as approved by the City Planning Manager: replacement of trees, relocation of trees, revegetation, or in-lieu mitigation fees.
- The City Planning Manager may allow removal of a protected tree which has been certified by an arborist to be a dead tree without any replacement or mitigation requirements.

Significance after Mitigation

Implementation of Mitigation Measure 3.7-6 would reduce potential impacts related to conflicts with the City of Roseville Municipal Code to a **less-than-significant** level by requiring a Tree Permit from the City of Roseville, implementation of tree preservation measures for protected trees that would be retained on the project site, and compensatory mitigation for removal of protected trees.