

APPENDIX C

BIOLOGICAL RESOURCES EVALUATION AND RECORD SEARCHES

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BIOLOGICAL RESOURCES EVALUATION

BRAR FARMS RESIDENTIAL DEVELOPMENT PROJECT WEST SACRAMENTO, CALIFORNIA



LSA

August 2026

BIOLOGICAL RESOURCES EVALUATION

BRAR FARMS RESIDENTIAL DEVELOPMENT PROJECT WEST SACRAMENTO, CALIFORNIA

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TABLE OF CONTENTS

TABLE OF CONTENTS	i
FIGURES AND TABLES	iii
1.0 INTRODUCTION	1-1
1.1 Project Location.....	1-1
1.2 Project Description	1-1
1.2.1 Building Program	1-1
1.2.2 Open Space and Landscaping	1-4
1.2.3 Access, Circulation, and Parking	1-5
1.2.4 Lighting	1-6
1.2.5 Utilities and Infrastructure.....	1-6
1.2.6 Conservation and Sustainability Features.....	1-9
1.2.7 Frontage and Off-Site Improvements	1-9
1.2.8 Construction	1-9
2.0 REGULATORY SETTING	2-1
2.1 Federal Endangered Species Act	2-1
2.2 Migratory Bird Treaty Act	2-2
2.3 Clean Water Act.....	2-2
2.4 California Endangered Species Act and Section 2081 of the California Fish and Game Code	2-3
2.5 California State Fish and Game Code, Sections 3503, 3503.5, and 3513	2-3
2.6 California State Fish and Game Code, Sections 1600–1603.....	2-4
2.7 California Environmental Quality Act	2-4
2.7.1 Special-Status Species.....	2-5
2.7.2 Sensitive Natural Communities.....	2-6
2.8 Yolo Habitat Conservation Plan/Natural Community Conservation Plan.....	2-6
2.9 City of West Sacramento Ordinance 04-01, Tree Preservation (Municipal Code Chapter 8.24).....	2-7
3.0 METHODS	3-1
3.1 Database Search and Background Review	3-1
3.2 Field Surveys.....	3-1
3.2.1 General Biological Survey and Vegetation Mapping.....	3-1
4.0 EXISTING BIOLOGICAL CONDITIONS	4-1
4.1 Environmental Setting	4-1
4.2 Soils	4-1
4.3 Vegetation Communities and Land Uses.....	4-1
4.3.1 Ruderal Grassland	4-1
4.4 Aquatic Resources	4-4
4.5 Wildlife Use	4-4
4.5.1 Wildlife Movement	4-4
5.0 SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS	5-1
5.1 Special-Status Plant Species	5-1

5.2	Special-Status Wildlife Species	5-2
5.2.1	Swainson's Hawk.....	5-2
5.2.2	White-Tailed Kite	5-2
5.2.3	Nesting Migratory Birds and Raptors.....	5-3
5.3	Sensitive Habitats	5-3
6.0	IMPACTS, AVOIDANCE AND MINIMIZATION, AND MITIGATION	6-1
6.1	Project Impacts.....	6-1
7.0	LIMITATIONS, ASSUMPTIONS, AND USER RELIANCE	7-1

FIGURES

Figure 1: Regional Location	1-2
Figure 2: Biological Study Area on Topographic Base	1-3
Figure 3: NRCS Soil Classifications	4-2
Figure 4: Natural Communities and Land Uses	4-3

APPENDICES

- A: CNDDDB, CNPS, AND USFWS SPECIES LISTS
- B: POTENTIAL FOR SPECIAL-STATUS SPECIES TO OCCUR IN THE BIOLOGICAL STUDY AREA
- C: LIST OF PLANT AND WILDLIFE SPECIES OBSERVED

1.0 INTRODUCTION

This report summarizes the findings of a Biological Resources Evaluation (BRE) LSA conducted on behalf of the City of West Sacramento (City) for the Brar Farms Residential Development Project (project) in West Sacramento, Yolo County, California. This BRE describes existing biological resources in the project area, including potentially occurring special-status species, sensitive natural communities, and jurisdictional features; identifies potential impacts to biological resources associated with implementation of the proposed project, and recommends mitigation measures, where required, to avoid or reduce potential impacts. This document follows the Yolo County Habitat Conservation Program (HCP) requirements for vegetation community nomenclature, impact assessment, and implementation of avoidance and minimization measures.

1.1 PROJECT LOCATION

The approximately 58.34-acre biological study area (BSA) is at the corner of Marshall Road and Otis Avenue within the western portion of West Sacramento in Yolo County (**Figure 1**). The BSA consists of five parcels (Assessor's Parcel Numbers 045-260-008, 045-260-009, 045-260-010, 045-270-001, and 045-270-002). The BSA is in the *Sacramento West, California* United States Geological Survey (USGS) 7.5-minute quadrangle map (**Figure 2**). The BSA is surrounded by a mix of residential and agricultural uses, with agricultural fields to the east, a large open space basin to the west, and suburban residences to the north and south.

1.2 PROJECT DESCRIPTION

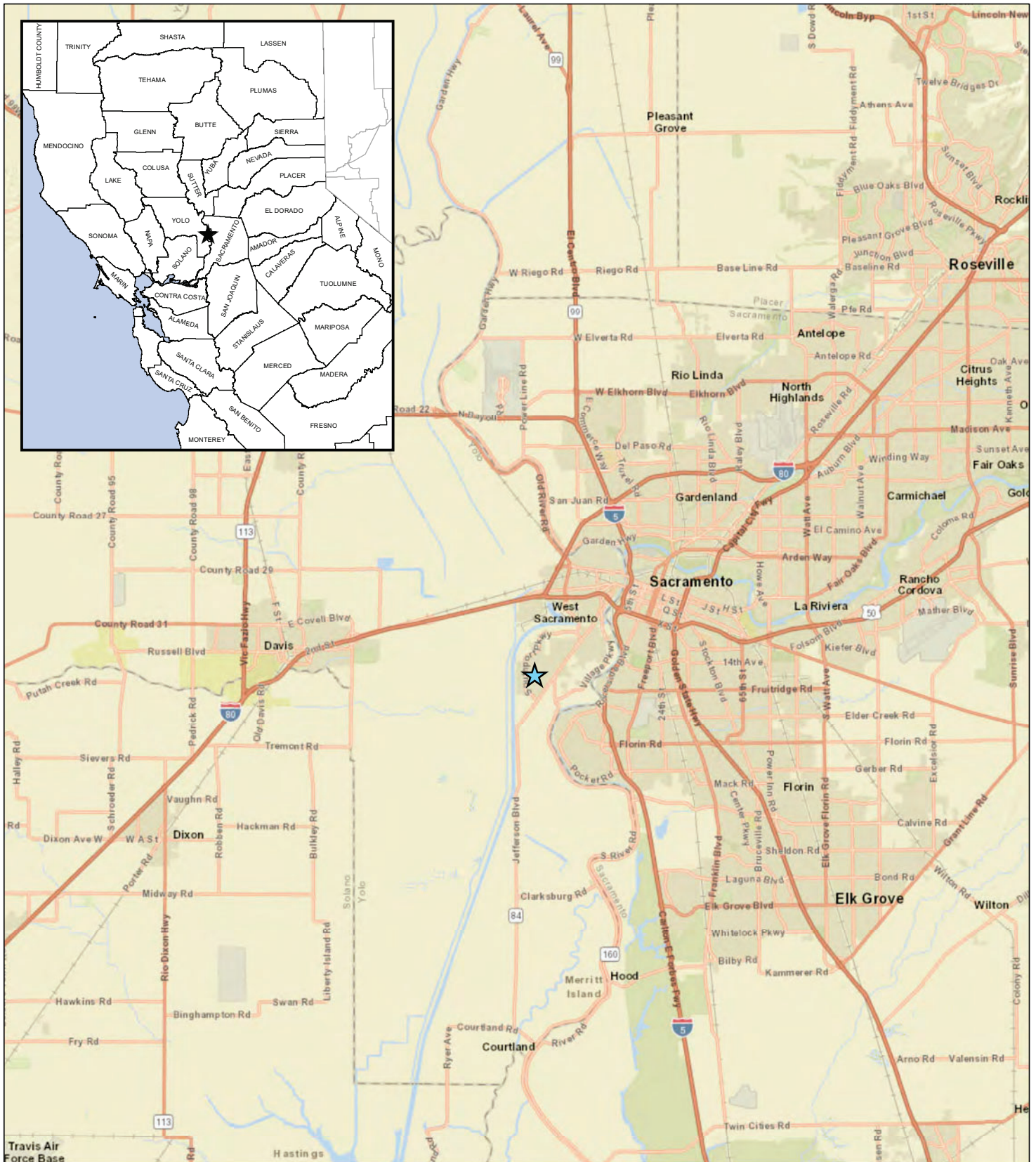
The proposed project involves the subdivision of an approximately 60-acre property¹ to create 259 lots for future single-family homes, comprising approximately 34.78 acres of residential development and 15 open space lots totaling 6.65 acres. The open space lots would include a 0.68-acre Central Park, a 0.14-acre parklet at the corner of Marshall Road and Otis Avenue, and 1.81 acres of landscaped lots distributed throughout the proposed development to provide greenspace and buffers. Additionally, the open space areas would include a 4.02-acre detention basin, which would also serve as a recreational field during dry seasons. Individual components of the proposed project are discussed below.

1.2.1 Building Program

The proposed residential development would consist of one- and two-story residential buildings up to 30 feet tall.

As part of the proposed development, two types of residences would be built: the Sohna Residences and the Khote Estates. The Sohna Residences would be the largest "village" within the proposed development, consisting of one- and two-story single-family detached homes situated on lots ranging from 5,000 to 7,000 square feet. These residences would be located adjacent to open space

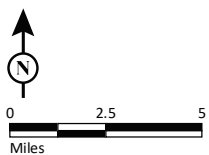
¹ The combined area of the five parcels that make up the project site totals an actual 58.34 acres, but is rounded up by the tax assessor to 60 acres. Accordingly, the project site is described as approximately 60 acres while the BSA reflects the actual project site acreage of the combined five parcels.



LSA

LEGEND

★ Project Location

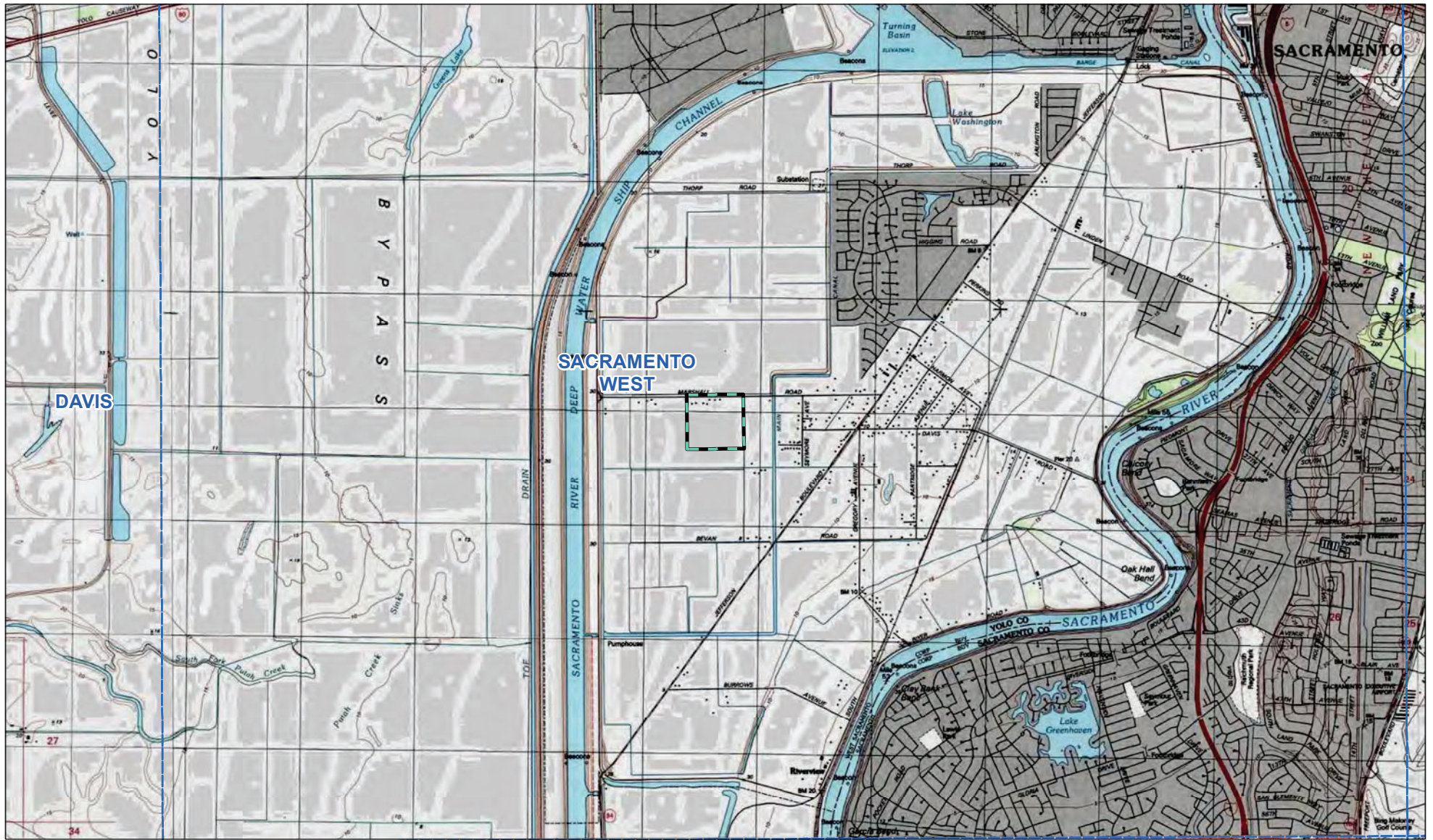


SOURCE: ESRI World Street Map (01/2025)

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FIGURE 1

Brar Farms Residential Development Project
City of West Sacramento, Yolo County, California
 LSA Project No. 20252264
 Regional Location



LSA

LEGEND

- Biological Study Area - (58.34 ac)
- USGS 7.5-Minute Quadrangle Boundaries



0 2000 4000
FEET

SOURCE: USGS 7.5-Minute Topographic Quadrangle - Sacramento West, CA (1992, 1997 ed.)

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FIGURE 2

Brar Farms Residential Development Project
City of West Sacramento, Yolo County, California
LSA Project No. 20252264

Biological Study Area on Topographic Base

areas, including the Central Park, parklets, landscaped lots, and the detention basin. Setback requirements, as outlined in the design guidelines for the proposed project (see **Appendix B**), would include a 20-foot front yard setback, a 20-foot rear yard setback, a 5-foot interior side yard setback, and a 15-foot corner side yard setback. The maximum building height for the Sohna Residences would be 30 feet.

The Khote Estates would be located along the southern and southwestern property lines, adjacent to the existing Bridgeway Lakes community. This residential area would consist entirely of single-story, estate-style detached homes on lots ranging from 7,200 to 14,800 square feet, with a maximum building height of 20 feet. Setback requirements, as outlined in the design guidelines for the proposed project, would include a 20-foot front yard setback, and a 20-foot rear yard setback from the living area. Additionally, interior side yards would have a minimum width of 5 feet, and corner side yards would require a minimum width of 15 feet. The Khote Estates would also incorporate outdoor living areas, with a minimum total size of 120 square feet per lot.

1.2.2 Open Space and Landscaping

The proposed project would include approximately 6.65 acres of open space consisting of the Central Park, parklet, landscape lots, and the detention basin. Additionally, landscaping would be installed throughout the proposed residential component and open space areas. State law prohibits the use of potable water to irrigate nonfunctional turf. However, the proposed 6.65 acres of open space would be designated for communal recreational uses and classified as functional turf.² Decorative turf, defined as nonfunctional turf³ not used for active recreation or community gathering, would be limited to residential lots, where applicable.

The recreational and open space areas within the proposed project, including the recreational elements of the detention basin, park, and landscaped lots would be privately owned and maintained by a future homeowners association (HOA). Reclamation District 900 (RD 900) would maintain the stormwater and drainage components of the detention basin and said maintenance would be funded by the RD 900 property assessments and meet RD 900's standards. Individual open space components are discussed below.

1.2.2.1 The Central Park

The 0.68-acre Central Park would be designed as a large community space with a walkway leading to a fountain and a large community shade structure intended for social gatherings, farmers markets, and community events. Consistent with the City of West Sacramento Municipal Code Section 13.04.760, the proposed water fountain would utilize a recirculating water system to reduce water waste and unreasonable water use.⁴ The proposed park would also include a children's play area and

² Functional turf refers to grassy areas used for communal purposes like parks, playgrounds, sports fields, schools, break areas for employees and other social activities.

³ Nonfunctional turf refers to irrigated lawn that is ornamental and not regularly used for recreation or public gatherings.

⁴ City of West Sacramento. 2025b. Zoning Code (Municipal Code Title 13). Chapter 13.04 Water Service System. Website: <https://ecode360.com/43202830> (accessed April 27, 2026).

additional amenities such as sculptures and other art mediums, decorative boulders, table games, picnic tables, and wing benches as well as associated landscaping.

1.2.2.2 Detention Basin

As described above, the 4.02-acre detention basin would serve as both a stormwater detention facility and a seasonal recreational area, designed to collect and manage runoff during wet seasons while providing functional greenspace during dry months. The basin would include post and cable fencing around the perimeter, signage, and associated landscaping.

1.2.2.3 Parklet

The proposed project would include a 0.14-acre parklet that would be comprised of green space and a small gathering area in the northeast corner of the project site, adjacent to a proposed roundabout at the corner of Marshall Road and Otis Avenue. The parklet would include entry monumentation signage and trellis, walkways, benches, and/or turf area. Associated landscaping would also be included within the proposed parklet.

1.2.2.4 Landscape Lots

The proposed project would include 1.81 acres of landscaped lots, which would be dedicated as open space. These landscaped lots would contain trees, benches, and walkways. These lots would typically be placed next to the corner lots throughout the villages, along Main Avenue. As stated above, the proposed 6.65 acres of open space would be designated for communal recreational uses and classified as functional turf. Decorative turf, defined as nonfunctional turf not used for active recreation or community gathering, would be limited to residential lots, where applicable.

1.2.3 Access, Circulation, and Parking

The project site would be connected to the surrounding road network by way of four full-access roads: two off Marshall Road, Main Avenue opposite the intersection with Martinique Street and Street B, opposite the intersection with Jamaica Street; and two off Otis Avenue, Street D and Street F.⁵ The proposed project would include development of local streets to facilitate circulation throughout the proposed residential development, all of which would be public and meet applicable City Standards.

In the northern portion of the project site, Main Avenue, which runs north-south, would serve as a primary street linking Marshall Road to Otis Avenue, by way of Street D, while providing direct access to Streets C and D. Street C would connect to Streets A and B, and Street D would connect to Streets B, E, F, and G. Main Avenue would also include the installation of a traffic circle at Main Avenue and Street D. In the southern portion of the project site, Street I would connect to Streets B and E and Street H would connect to Streets F and G.

⁵ The street names identified in this EIR as part of the proposed project are temporary names. The permanent street names will be determined during the final design and development of the proposed project.

Generally, the proposed streets would be 50 to 60 feet wide and would accommodate 5- to 8-foot-wide sidewalks, landscape strips in-between the curb and sidewalk and Class III bikeways within the proposed development. Improvements adjacent to the project site would include Class II bikeways along Marshall Road and Otis Avenue, and enhanced crosswalks with speed tables and bulb outs. Future homes would include two-car garages and driveways. On-street parking would be available for residents and guests.

1.2.4 Lighting

The proposed future development includes the installation of 14-foot pedestrian-scaled streetlights along residential local streets and 28-foot primary streetlights on residential collector streets along Marshall Road and Otis Avenue. All external lighting including residential lighting would use energy-efficient light emitting diode (LED) fixtures. Additionally, lighted bollards would be installed to provide illumination at the pedestrian scale and would be located throughout the parklet and the Central Park. All applicable exterior lighting within the proposed project would be required to comply with City's Municipal Code Section 17.22.080, Lighting and Illumination, including standards related to fixture type, height, shielding, light trespass, and timing controls, as applicable.⁶

1.2.5 Utilities and Infrastructure

The project site is located in a developed area that is currently served by existing utilities, including water, sanitary sewer, storm drain, electricity, gas, and telecommunications infrastructure. Existing and proposed utility connections are discussed below.

1.2.5.1 Water

Water service is provided by the City of West Sacramento. The proposed project would include the installation of 10- and 12-inch water lines throughout the project site that would connect to the existing 12-inch water lines within Marshall Road and Otis Avenue. Additionally, 1-inch residential water service lines and water meters would be installed and connected to the future homes. The City's 2024 Water Master Plan Update, adopted in February 2025, did not contemplate the development of this project. Subsequently, an updated assessment of the project's impacts on the City's existing water infrastructure, the supplemental Water Model Update Memorandum,⁷ was completed in October 2025, to identify what improvements would be needed to serve the project. The updated assessment confirmed that the addition of project demand would not cause system pressures to fall below City standards or pipeline velocities to exceed allowable thresholds. The study also found that the proposed on-site systems would integrate with the City's distribution network without creating localized deficiencies and that the proposed project would not require upsizing of off-site mains or trigger premature construction of planned Capital Improvement Project (CIP)-related projects. Other improvements would include water valves, water mains, and fire hydrants within the project site.

⁶ City of West Sacramento. 2025b. Zoning Code (Municipal Code Title 17). Chapter 17.22 General Site Regulations. Website: <https://ecode360.com/43205860#43205857> (accessed February 2026).

⁷ Water Works Engineers. 2025. *Water Model Update Memorandum*. October 1.

1.2.5.2 Wastewater

West Sacramento maintains an existing sanitary sewer network within the project vicinity, consisting of 6-inch, 8-inch, 10-inch, 12-inch, 15-inch, and 18-inch sewer lines that convey wastewater from residential areas and other developments toward the Bridgeway Island Pump Station to the north of the project site. The proposed project would include the installation of new sewer manholes, SDR-35 sewer pipes, new sewer laterals, and new sanitary sewer connections to the existing Bridgeway Island Pump Station. The City's 2024 Sewer Master Plan Update, adopted in April 2025, did not contemplate the development of this project; however, an updated assessment of the project's impacts on the City's existing sewer infrastructure was completed in March 2026. According to this updated assessment in the *Sewer Technical Memorandum*, the existing downstream sanitary sewer collection system, including the Bridgeway Island Pump Station, can adequately convey the projected wastewater flows from the proposed project, and no off-site sewer improvements would be required.⁸

1.2.5.3 Stormwater

The project site does not currently contain any detention ponds or stormwater drainage collection system. Under existing conditions, stormwater runoff on the project site either infiltrates at the project site, or sheet flows in both an easterly and westerly direction from a localized high point on the project site. Stormwater runoff flowing east would discharge to the existing storm drain facilities along Otis Avenue and stormwater runoff flowing west would be collected by existing stormwater infrastructure associated with the existing residential development located west and southwest of the project site.

As part of the proposed project, 40 drainage management areas (DMAs) would be installed throughout the project site to collect and convey runoff through the newly installed 15-inch reinforced concrete pipe (RCP) network toward the new 4.02-acre detention basin located at the center of the site. The detention basin would be designed to have a depth of 6.0 feet and a storage capacity of 21.175 acre-feet, temporarily holding stormwater, reducing peak flow impacts on the surrounding infrastructure before ultimately draining into the existing 24-inch public storm drain in Otis Avenue.

To regulate flows, a pump station would be installed within or near the detention pond to control the outflow of stormwater to the existing 24-inch public storm drain in Otis Avenue. Overall, these elements would meet the Low Impact Development (LID) design requirements.

The proposed project would also include storm drainage improvements, which would include the installation of new curbs and gutters, curb inlets and catch basins, and storm drain manholes throughout the project site. Additionally, existing storm drain inlets along Marshall Road and Otis Avenue would be relocated.

Upon completion of the project, the site would be developed with 259 residential lots, roadways, sidewalks, utility infrastructure, and approximately 6.49 acres of open space consisting of the

⁸ Dpoudja & Wells Consulting. 2026. *Brar Farms Residential Development Collection System Impact Evaluation*. March.

detention basin, park amenities, parklet, and landscape lots. For purposes of this analysis, the Drainage Study prepared for the proposed project in April 2026, assumed that approximately 55 percent of the proposed development area would be covered by residential units, walkways, roadways, and other paved surfaces. However, the proposed project would incorporate the previously noted LID design requirements, in total providing a runoff capture capacity of 25.6 acre-feet, significantly exceeding the minimum required capacity of 2.1 acre-feet for flow treatment. As previously stated, the recreational and open space areas within the proposed project, including the recreational elements of the detention basin, park, and landscaped lots would be privately owned and maintained by a future HOA. RD 900 would maintain the stormwater and drainage components of the detention basin and said maintenance would be funded by the RD 900 property assessments and to RD 900's standards.

Additionally, as stated above in Section 3.3.6.1, Water, given that the City's 2024 Water Master Plan Update did not contemplate the development of this project, an updated assessment of the project's impacts on the City's existing water infrastructure was completed in October 2025. The updated assessment confirmed that the addition of project demand would not cause system pressures to fall below City standards or pipeline velocities to exceed allowable thresholds. The study also found that the proposed on-site systems would integrate with the City's distribution network without creating localized deficiencies. Further, a Drainage Drain Study was completed for the proposed project on April 25, 2026, to evaluate the potential impacts of the proposed detention basin on the existing downstream stormwater system, which has been reviewed and approved by the City. The study included an assessment of pre- and post-development stormwater flows, including 10-year and 100-year events, for the entire project site as well as for individual DMAs. The study also evaluated the capacity of the proposed detention basin to temporarily store runoff, regulate peak flows, and prevent increases in downstream flows relative to existing conditions. The study concluded that the proposed detention basin, in combination with the on-site storm drain network, would provide adequate storage and conveyance capacity to limit post-development flows to levels consistent with pre-development conditions for 10-year and 100-year storms, with overland flows remaining within acceptable limits.⁹ In addition, RD 900 would review the pump station during approval of the proposed project.

1.2.5.4 Electricity and Natural Gas

PG&E would provide electricity to the project site. The proposed project would include connections to the existing PG&E electrical transmission lines that run along the southern and northern edges of the project site. The proposed project would not include the use of natural gas.

1.2.5.5 Telecommunications

Telecommunications service to the project site would be provided by AT&T or Charter Communications.

⁹ Continental Development Consultants. 2026. *Drainage Study, Brar Farms 3425 Marshall Road West Sacramento, CA 95691*. January.

1.2.6 Conservation and Sustainability Features

The proposed project would be designed to comply with the water efficiency and energy conservation requirements included in the California Building Standards Code (California Code of Regulations, Title 24). The proposed residential units would also feature passive use solar heating and cooling, natural ventilation, energy-efficient windows (such as Low E Vinyl, Argon Glass Filled Low E, or Low E Wood Frame), solar roofs, green roofs, or cool roof systems, and energy-efficient home appliances.

1.2.7 Frontage and Off-Site Improvements

The proposed project includes several off-site improvements. These off-site improvements would include frontage improvements along the north side of the project site on Marshall Road, consisting of new sidewalk, curb, and gutter infrastructure, as well as undergrounding of all overhead utilities, construction of street lighting, and installation of landscaping. Similar frontage improvements would also be constructed on the south side of Marshall Road and western side of Otis Avenue. A single-lane roundabout at the intersection of Marshall Road and Otis Avenue adjacent to the northeastern corner of the project site would also be developed. The primary purpose of this facility is to control existing and project-related traffic along Marshall Road and Otis Avenue.

1.2.8 Construction

Grading for the proposed curb and gutters would occur on slopes with less than 2 percent grade. The detention basin would involve steeper grading, with side slopes of up to 4:1 (four feet horizontal and one foot vertical) along the perimeter of the detention basin and interior slopes of up to approximately 5 percent to facilitate drainage.

Project site preparation would involve grading activities and placement of fill to raise site elevations along the southerly property line and to achieve proposed finished floor elevations of the site. Ground disturbance would not exceed a depth of excavation of 11 feet below ground surface. It is assumed that the entirety of the approximately 60-acre project site would be disturbed during grading and construction activities. It is anticipated that during project construction a total of 31,422 cubic yards would be cut through grading and excavation activities, and 88,068 cubic yards of fill would be required. Additionally, it is assumed that a portion of the required fill would come from on-site excavation, with the remaining fill imported to achieve the proposed site elevations. All fill would remain on site, and no soil would be exported or hauled off. For purposes of this EIR, analysis assumes that construction of the proposed project is anticipated to begin in 2027 or 2028 and would commence within 12 or 18 months of project approval. This assumption provides a more conservative basis for evaluating potential environmental impacts; however, construction may require a longer timeframe.

2.0 REGULATORY SETTING

This section details federal, State, and local environmental laws, regulations, and policies relevant to the California Environmental Quality Act (CEQA) review process.

2.1 FEDERAL ENDANGERED SPECIES ACT

The federal Endangered Species Act (FESA) (16 United States Code [USC] SECTIONS 1531-1543) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. FESA defines species as threatened or endangered and provides regulatory protection for listed species. FESA provides a program for the conservation and recovery of threatened and endangered species as well as the protection of designated critical habitat that the United States Fish and Wildlife Service (USFWS) determines is required for the survival and recovery of listed species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering FESA.

Section 9 of FESA prohibits the “take” of species listed by the USFWS as threatened or endangered. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. As defined by FESA, take means “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by significantly disrupting normal behavioral patterns related to breeding, feeding, and shelter.

Section 7 of FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations Title 50, Part 402. If an activity could result in “take” of a listed species as an incident of an otherwise lawful activity, then a biological opinion can be issued with an incidental take statement that exempts the activity from FESA’s take prohibitions.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at Code of Federal Regulations (CFR) Title 50, Sections 13 and 17 for species under the jurisdiction of USFWS and CFR, Title 50, Sections 217, 220, and 222 for species under the jurisdiction of NMFS. Section 10 would apply to the project if take of a species (as defined in Section 9) were determined to occur. The project area falls within the geographic region covered by the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP or “Plan”) federal Incidental Take Permit (ITP) permit, which provides local Section 10 compliance for covered species and activities for participating entities. The City is a participating entity in the Yolo HCP/NCCP.

Section 4(a)(3) and (b)(2) of FESA requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in Section 3(5)(A) of FESA as (1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special management consideration or protection; and (2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

2.2 MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) (16 USC Sections 703–711), first enacted in 1918, is the result of a series of treaties that the United States has with Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (USC Title 16, Section 703). The MBTA currently includes several hundred species and includes all birds native to the United States.

2.3 CLEAN WATER ACT

The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act (CWA), is the nation’s primary law for regulating discharges of pollutants into waters of the United States. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. The regulations adopted pursuant to the CWA deal extensively with the permitting of actions in waters of the United States, including wetlands. The United States Environmental Protection Agency (EPA) has primary authority under the CWA to set standards for water quality and for effluents, but the United States Army Corps of Engineers (USACE) has primary responsibility for permitting the discharge of dredge or fill materials into streams, rivers, wetlands, and other waters of the United States.

Under Section 404 of the CWA, the USACE is responsible for regulating the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementation regulations are defined in 33 CFR Parts 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the EPA in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Under Section 10 of the River and Harbors Act, the USACE regulates the construction of any structure in or over any navigable water of the United States. Navigable waters are defined as “those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.”

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the acreage involved and the purpose of the proposed

fill. Minor amounts of fill can be covered by a Nationwide Permit. An Individual Permit is required for projects that result in more than a “minimal” impact on jurisdictional areas. Pursuant to Section 401 of the CWA, projects that are regulated by the USACE must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that projects will meet State water quality standards. The RWQCB has a policy of no net loss of wetlands and typically requires the identification of mitigation for all impacts to wetlands before water quality certifications may be issued. For State waters that are not otherwise regulated by the USACE under Section 404, the RWQCB issues Waste Discharge Requirements, or waivers thereof, consistent with the Porter-Cologne Water Quality Control Act.

2.4 CALIFORNIA ENDANGERED SPECIES ACT AND SECTION 2081 OF THE CALIFORNIA FISH AND GAME CODE

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the California Department of Fish and Wildlife (CDFW) when preparing CEQA documents. The purpose is to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species if there are reasonable and prudent alternatives available (California Fish and Game Code Section 2080). As with FESA, for covered projects that may impact State-listed species under CESA, direct consultation with CDFW for State-listed take authorization will be required if the covered project may affect listed species. CDFW determines whether jeopardy to a species would occur as a result of a proposed project and identifies “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA also allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (California Fish and Game Code Section 2081).

Under Section 2081 of the California Fish and Game Code, the CDFW may authorize individuals or public agencies to import, export, take, or possess, any endangered, threatened, or candidate species in the State of California. These acts that are otherwise prohibited may be authorized through permits or memoranda of understanding if (1) the take is incidental to an otherwise lawful activity; (2) impacts of the authorized take are minimized and fully mitigated; (3) the permit is consistent with any regulations adopted pursuant to any recovery plan for the species; and (4) the applicant ensures adequate funding to implement the measures required by CDFW. The CDFW makes this determination based on the best scientific and other information that is reasonably available and includes consideration of the species’ capability to survive and reproduce. The project area falls within the geographic region covered by the Yolo HCP/NCCP CDFW Incidental Take Permit (ITP) permit, which provides local Section 2081 compliance for covered species and activities for participating entities. The City is a participating entity in the Yolo HCP/NCCP.

2.5 CALIFORNIA STATE FISH AND GAME CODE, SECTIONS 3503, 3503.5, AND 3513

Under California Fish and Game Code Sections 3503, 3503.5, and 3513, the project proponent is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory nongame bird; the taking, possessing, or needlessly

destroying of the nest or eggs of any raptors or nongame birds; or the taking of any nongame bird pursuant to California Fish and Game Code Section 3800. California Fish and Game Code Section 3513 adopts the federal Department of the Interior take provisions under the MBTA.

2.6 CALIFORNIA STATE FISH AND GAME CODE, SECTIONS 1600–1603

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources are subject to the regulatory authority of the CDFW pursuant to Sections 1600 through 1603 of the California Fish and Game Code. Under the California Fish and Game Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. Specifically, Section 1603 of the California Fish and Game Code governs private-party individuals, and Section 1601 of the California Fish and Game Code governs public projects. The CDFW must be contacted by the public or private party for a Lake or Streambed Alteration Agreement for any project that might impact a lake or streambed. The CDFW has maintained a “no net loss” policy regarding potential impact and has required replacement of lost habitats on at least an acre-for-acre basis.

2.7 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 15064.7 of the *State CEQA Guidelines* encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study Checklist contained in Appendix G of the *State CEQA Guidelines*. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project 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 the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the 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; and

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

An evaluation of whether an impact on biological resources would be significant must consider both the resource itself and how that resource fits into a regional or local context. Significant impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would conflict with local, State, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

2.7.1 Special-Status Species

For the purposes of this assessment, special-status species under CEQA are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under FESA
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the CESA
- Plant species listed as rare under the California Native Plant Protection Act of 1977
- Wildlife species designated as Species of Special Concern or Fully Protected by the CDFW
- Plant species considered to be rare, threatened, or endangered in California under the California Rare Plant Rank (CRPR), including:
 - CRPR 1A: Plants presumed extirpated in California and are either rare or extinct elsewhere
 - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
 - CRPR 2A: Plants presumed extirpated in California, but common elsewhere
 - CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
- Species that meet the definitions of “rare” or “endangered” under *State CEQA Guidelines* Section 15380, including CRPR species ranked 3 and 4:
 - CRPR 3: Plants about which more information is needed – a review list
 - CRPR 4: Watch list – plants of limited distribution

2.7.2 Sensitive Natural Communities

CDFW tracks the occurrences of natural plant communities that are of limited distribution statewide, or within a county or region where they are often vulnerable to the effects of development projects. In the most recent list of vegetation alliances/natural communities recognized in California, alliances with a NatureServe State ranking code of S1 through S3 are considered to be “highly imperiled” and impacts to “high-quality occurrences” of these communities may be considered significant under CEQA.

2.8 YOLO HABITAT CONSERVATION PLAN/NATURAL COMMUNITY CONSERVATION PLAN

The Yolo Habitat Conservancy (Conservancy) completed the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP or “Plan”) in 2018 and began Yolo HCP/NCCP implementation on January 11, 2019. The Yolo HCP/NCCP is a countywide conservation plan to provide Endangered Species Act permits and associated mitigation for infrastructure (e.g., roads and bridges) and development activities (e.g. agricultural facilities, housing, and commercial buildings) identified for construction over the next 50 years in Yolo County. The Yolo HCP/NCCP coordinates mitigation to maximize benefits to species, as well as conserve habitat above and beyond required mitigation for the following 12 identified species: palmate-bracted bird’s beak (*Chloropyron palmatum*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), California tiger salamander (*Ambystoma californiense*), western pond turtle (*Actinemys marmorata*), giant garter snake (*Thamnophis gigas*), Swainson’s hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), western burrowing owl (*Athene cunicularia*), Least Bell’s vireo (*Vireo bellii*), bank swallow (*Riparia riparia*), and tricolored blackbird (*Agelaius tricolor*).

The Plan provides a comprehensive mitigation and conservation strategy that meets federal and state regulatory requirements in support of State and federal permits. The Yolo HCP/NCCP will protect fish and wildlife and their habitats and fulfill the requirements of FESA and the California Natural Community and Conservation Planning Act.

The Yolo HCP/NCCP covers a total of 21,559 acres of activities in five categories. This includes 17,550 acres for urban and rural projects, 706 acres for public/private operations and maintenance, 956 acres for conservation strategy implementation, and 2,347 acres for neighboring landowner agreements. Proponents seeking ESA coverage for any of these listed activities are required to pay a land cover fee to the Conservancy. These fees provide the Conservancy with funding to build and manage the reserve system, as well as comply with permit conditions. The Conservancy updates fees annually. If a project affects wetlands, the Conservancy will add one of the three additional fees to the land cover fee.

The City of West Sacramento is a participating entity (i.e. “Permittee”) in the Yolo HCP/NCCP and housing development projects are a covered activity under this Plan. The proposed project will likely receive Endangered Species Act “take” coverage for special-status species under this Plan.

2.9 CITY OF WEST SACRAMENTO ORDINANCE 04-01, TREE PRESERVATION (MUNICIPAL CODE CHAPTER 8.24)

The City of West Sacramento Ordinance 04-01 related to Tree Preservation (Code of Ordinances Chapter 8.24) states:

- A. Any person seeking to perform any activity on a landmark, heritage or street tree shall contact the tree administrator to discuss the proposed activity and if deemed necessary, the tree administrator will inspect the site of the proposed activity. After initial consultation between the applicant and the tree administrator, the tree administrator shall confirm whether or not a permit is required. If it is determined that a permit is required, the applicant shall apply for a permit. The application shall be signed by the property owner or his or her authorized agent. (8.24.080)
- B. If a permit is granted to remove the tree(s), a copy of the tree permit shall be posted in a conspicuous location on the property near the tree during the removal of the tree. The tree contractor removing the tree(s) shall provide the tree administrator proof of current liability insurance prior to final issuance of the tree permit. (8.24.080)
- C. Heritage or Landmark Trees. When the tree administrator has granted a tree permit to remove a heritage or landmark Tree, said permit shall require the applicant to replace the tree with a living tree on the property or within the City of West Sacramento in a location approved by the tree administrator. Said location will be specified in the tree permit. A "Heritage tree" means any living tree with a trunk circumference of 75" or more or a native oak with a trunk circumference of 50" or more; a "Landmark tree" is any single or stand of trees of historical significance. The property owner will replace the tree and continue to replace the replacement tree if the tree dies any time within three years of the initial planting. Replacement shall not be required if a tree is in need of removal solely because it poses a risk to persons or property or if the tree acts as a host for a plant that is parasitic.

Replacement trees will be planted at the rate of one inch diameter of replacement plant for every one inch diameter of tree removed. A diameter shall be measured at four feet six inches from ground level. Replacement trees may be a combination of fifteen gallon size trees, which are the equivalent of a one inch diameter tree or twenty-four inch box trees which are the equivalent of a three inch diameter tree.

If the property owner is unable to replace the tree on his/her property or within an area approved by the tree administrator, the tree administrator shall require the property owner to pay an in lieu fee to the City of West Sacramento. An in lieu fee payment shall not be required if the tree is in need of removal solely because it poses a risk to persons or property or if the tree acts as a host for a plant that is parasitic. Such fees shall be set by city council resolution and be used for the purpose of purchasing and planting trees elsewhere in the City of West Sacramento (8.24.084)

- D. Development. Trees removed as a result of a development project shall be replaced in accordance with the replacement schedule set forth for landmark, heritage and street trees.

Tree plantings required for the replacement of removed trees shall be in addition to those required as a condition of a development project pursuant to the West Sacramento Landscape Development Guidelines or as specified by an adopted planned development or specific plan landscape regulations pursuant to Section 17.35.020(A)(5).

Any application for a development project shall be accompanied by a tree plan containing the following information:

- A. Contour map showing the location, size, species and condition of all existing trees which are located on the property proposed for development;
- B. Identification of those trees which the applicant proposes to preserve and those heritage, landmark or street trees which are proposed to be removed and the reason for such removal;
- C. A description of measures to be followed to ensure survival of heritage, landmark and street trees during construction;
- D. A program for the preservation of heritage, landmark and street trees during and after completion of the project shall include the following:
 - 1. Each tree or group of trees to be preserved shall be enclosed with a fence prior to any grading, movement of heavy equipment, approval of improvement plans or the issuance of any permits and such fence shall be removed following construction by prior to installation of landscaping material.
 - 2. Fencing shall be located one foot outside of dripline of the tree or trees and shall be a minimum of six feet in height.
 - 3. Signs shall be posted on all sides of fences surrounding each tree stating that each tree is to be preserved.
 - 4. Any and all exposed roots shall be covered with a protective material during construction.
- E. A program for the replacement of any trees proposed to be removed. Said program shall be in conformance with Section 8.24.084.

3.0 METHODS

Prior to conducting any field studies, the limits of the 58.34-acre BSA were established, as described in Section 1.1.

3.1 DATABASE SEARCH AND BACKGROUND REVIEW

A list of sensitive wildlife and plant species potentially occurring within the BSA was compiled to evaluate potential impacts resulting from the construction of the project. Sources used to compile the list include the California Natural Diversity Database (CNDDDB),¹⁰ the California Native Plant Society (CNPS) Online Inventory,¹¹ and the USFWS Information for Planning and Consultation (IPaC) Trust Resources Report.¹² For the CNDDDB and CNPS lists, records were reviewed for the following USGS 7.5-minute quadrangles: *Grays Bend*, *Taylor Monument*, *Rio Linda*, *Davis*, *Sacramento West*, *Sacramento East*, *Saxon*, *Clarksburg*, and *Florin*. The individual lists are included in **Appendix A**.

The special-status species lists obtained from the CNDDDB, CNPS, and USFWS were reviewed in conjunction with aerial imagery and soil maps to determine species that could potentially occur within the BSA. The determination of whether a species could potentially occur within the BSA was based on the availability of suitable habitat for that species within the BSA, whether or not the BSA is within the species' known range, as well as known occurrences of the species in or adjacent to the BSA according to the CNDDDB. Species requiring specific habitat not present in the vicinity of the BSA were eliminated as potentially occurring and are not discussed further. The results of the record search and background review were summarized in a table addressing the potential for special-status species to occur in the BSA (**Appendix B**). Those species that could potentially occur in the BSA based on habitat suitability or known occurrences in or within the vicinity of the BSA are discussed in Chapter 5.0.

3.2 FIELD SURVEYS

Preliminary surveys required to document the biological conditions of the BSA included a general biological survey and vegetation mapping.

3.2.1 General Biological Survey and Vegetation Mapping

The general biological survey and vegetation mapping was conducted by LSA biologist Anna Van Zuuk on April 4, 2025. The entire BSA was surveyed on foot, noting vegetation communities, examining trees and shrubs closely for any nest structures, and identifying all birds and any other wildlife observed in order to determine if potential habitat to support special-status species was present. All plants and wildlife were identified to species, or to a sufficient level of taxonomy to

¹⁰ California Department of Fish and Wildlife (CDFW). 2025. California Natural Diversity Database (CNDDDB), commercial version. Biogeographic Data Branch, Sacramento. October 8.

¹¹ California Native Plant Society (CNPS). 2025. Inventory of Rare and Endangered Plants (online edition, v9.5). California Native Plant Society, Sacramento. Website: www.cnps.org/inventory (accessed October 8, 2025).

¹² United States Fish and Wildlife Service (USFWS). 2025. IPaC Information for Planning and Consultation. List of federally listed species known to occur in the project area. October 8.

ensure they were not special-status species. Wildlife was observed to determine wildlife use of the BSA.

Vegetation in the BSA was classified according to *A Manual of California Vegetation*.¹³ Plant taxonomy and nomenclature in this document follows Baldwin et al.¹⁴ and the Jepson Online Interchange for California Floristics.¹⁵

¹³ Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society, Sacramento, California.

¹⁴ Baldwin, B.G., et al. eds. 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. University of California Press, Berkeley.

¹⁵ Jepson Flora Project (eds.). 2025. Jepson eFlora. Website: www.ucjeps.berkeley.edu/eflora/.

4.0 EXISTING BIOLOGICAL CONDITIONS

Using the information obtained from the sources and field surveys described in Chapter 3.0, this section describes existing vegetation and wildlife habitat values, observed or potentially occurring common or special-status plant and wildlife species, sensitive vegetation types, and potentially jurisdictional waters within the BSA.

4.1 ENVIRONMENTAL SETTING

The BSA is regionally within the Sacramento Valley, with predominant natural habitats consisting of annual grasslands and oak woodlands. Primary land uses in the vicinity consist of suburban residential development and agriculture. The BSA itself is an undeveloped lot that was historically used for agricultural purposes. At present, the BSA is seasonally farmed for hay by a volunteer farmer and maintained by the property owner, who mows and tills the land as needed.¹⁶

Topography in the BSA is relatively flat with a gentle slope to the southwest; the elevation is approximately 8 to 10 feet above mean sea level.

4.2 SOILS

The BSA consists of two soil types, as shown in **Figure 3**:

- Wa: Willows silty clay loam, 0 percent slopes, MLRA 17 (50.1 acres)
- Wb: Willows clay, 0 percent slopes, MLRA 17 (8.2 acres)

Willows series soils consist of very deep, poorly to very poorly drained sodic soils formed in alluvium from mixed rock sources. These soils are typical of flood basins and are often used for growing rice, sugar beets, and safflower. Willows series soils are considered hydric soils.¹⁷

4.3 VEGETATION COMMUNITIES AND LAND USES

The entire BSA is comprised of one semi-natural community—ruderal grassland—as shown in **Figure 4**. A comprehensive list of plant species observed in the BSA is included in **Appendix C**.

4.3.1 Ruderal Grassland

Ruderal grasslands are defined as open-space herbaceous areas that have been subject to previous or ongoing disturbances such as scraped or graded land, mowing and/or grazing, and disturbed areas along roadsides, trails, and parking lots. These areas tend to be colonized by nonnative species that can quickly establish in poor soil and disturbed or waste areas. They generally have fast-growing roots, low nutritional needs, and produce massive amounts of seed.

¹⁶ Based on verbal input from the Project Applicant to LSA Staff in meeting held on March 26, 2025.

¹⁷ Natural Resources Conservation Service Web Soil Survey. 2025. Soil Survey Area: Yolo County, California. Survey Area Data: Version 23, September 3, 2025. Website: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.



LSA

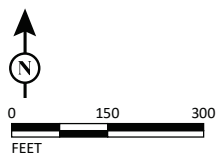
LEGEND

 Biological Study Area - (58.34 ac)

NRCS Soil Classifications

 Wa - Willows silty clay loam, 0 percent slopes, MLRA 17

 Wb - Willows clay, 0 percent slopes, MLRA 17

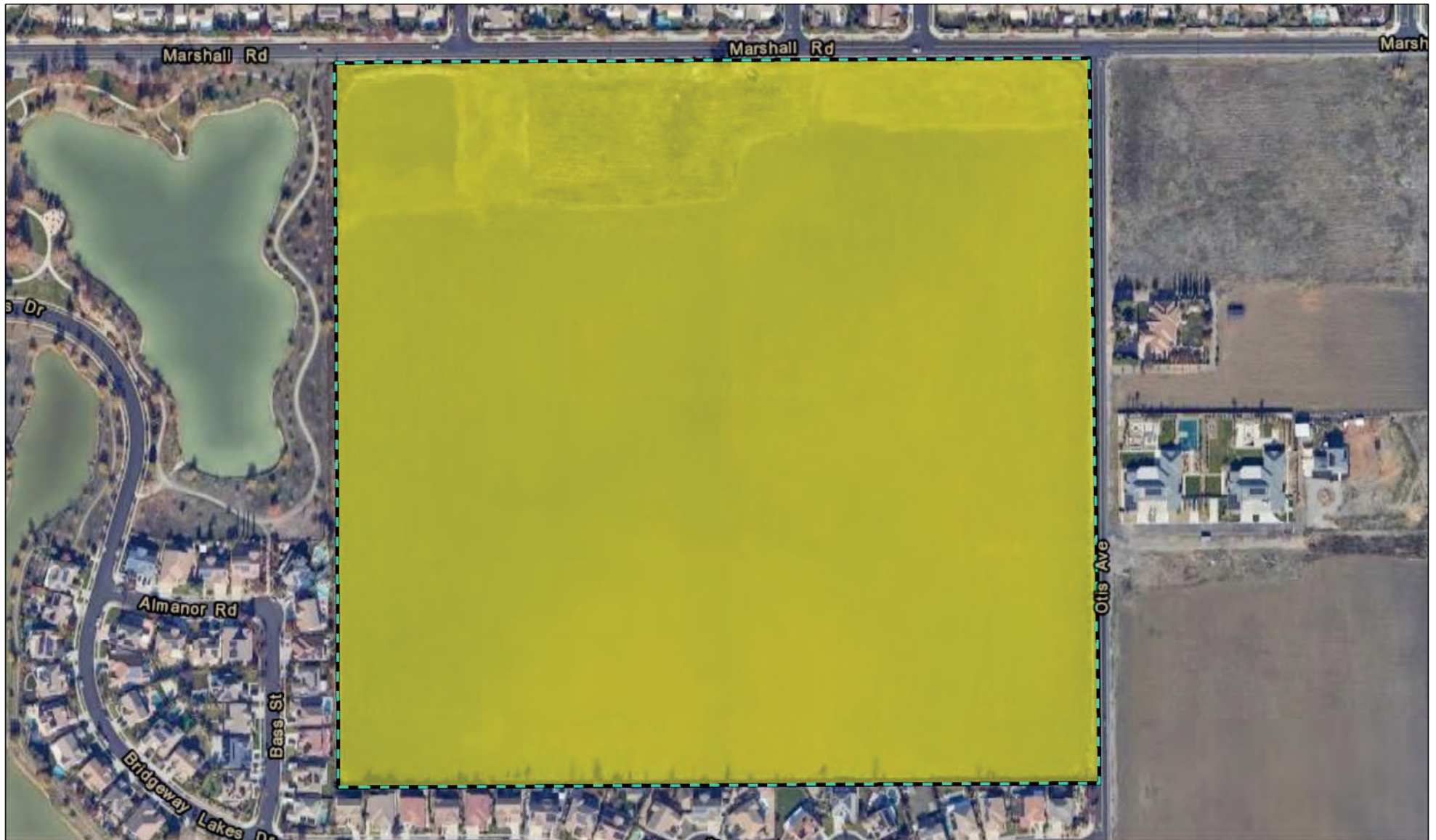


SOURCE: Google Aerial Imagery (11/2023); Mapping - NRCS Web Soil Survey of Yolo County (09/2025)

I:\2025\20252264\GIS\MXD\BRE\NRCS_Soils.mxd (10/10/2025)

FIGURE 3

Brar Farms Residential Development Project
City of West Sacramento, Yolo County, California
LSA Project No. 20252264
NRCS Soil Classifications



LSA

LEGEND

 Biological Study Area - (58.34 ac)

Vegetation Communities and Land Uses

 Ruderal Grassland - (58.34 ac)



0 150 300
FEET

SOURCE: Google Aerial Imagery (11/2023); Mapping - LSA (04/2025)

I:\2025\20252264\GIS\MXD\BRE\Veg_Comm.mxd (10/10/2025)

FIGURE 4

Brar Farms Residential Development Project
City of West Sacramento, Yolo County, California
LSA Project No. 20252264
Vegetation Communities and Land Uses

The entirety of the BSA is composed of ruderal grasslands totaling 58.34 acres. Dominant species consist of a mixture of grasses and forbs including wild oats (*Avena fatua*), black mustard (*Brassica nigra*), and ripgut brome (*Bromus diandrus*). Other common species encountered included common barley (*Hordeum vulgare*), Hood canarygrass (*Phalaris paradoxa*), common wheat (*Triticum aestivum*), vetch species (*Vicia* spp.), and Italian thistle (*Carduus pycnocephalus*).

As stated in Section 4.1, this community is seasonally maintained for hay production and is mowed and tilled as needed.

4.4 AQUATIC RESOURCES

No aquatic resources occur in the BSA. The nearest aquatic resources include a retention pond and a drainage ditch west of the BSA. The retention pond is in open space that is part of the Bridgeway Lakes Community Park. This pond is separated from the BSA by a drainage ditch that runs along approximately 1,000 feet of the western edge of the BSA. The drainage ditch supports a variety of hydrophytic vegetation including tule (*Schoenoplectus acutus* var. *occidentalis*) and narrowleaf cattail (*Typha angustifolia*) with scattered sandbar willows (*Salix exigua*). The entirety of the drainage ditch and retention pond are outside of the BSA.

4.5 WILDLIFE USE

Wildlife species observed or expected to occur within the BSA are those adapted to urban and suburban areas within Yolo County. Wildlife species observed during the field surveys include red-winged blackbird (*Agelaius phoeniceus*), rock pigeon (*Columba livia*), northern mockingbird (*Mimus polyglottos*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), killdeer (*Charadrius vociferus*), mallard (*Anas platyrhynchos*), Anna's hummingbird (*Calypte anna*), house sparrow (*Passer domesticus*), cliff swallow (*Petrochelidon pyrrhonota*), black phoebe (*Sayornis nigricans*), and western fence lizard (*Sceloporus occidentalis*). Other common wildlife species expected to occur in the area include red-tailed hawk (*Buteo jamaicensis*), California scrub jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), house finch (*Haemorhous mexicanus*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*).

A comprehensive list of wildlife species observed by LSA is provided in **Appendix C**.

4.5.1 Wildlife Movement

Wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

The BSA is in a suburban residential area intermixed with agriculture. Roadways and fenced areas (e.g., backyard fencing), as well as human disturbance likely impede significant wildlife movement through the BSA. Development of the project would not add additional barriers to wildlife movement in the area.

5.0 SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS

LSA conducted a review of the specific habitats required by each species identified by the special-status species searches (see **Appendix A** for individual lists) and the specific habitats and habitat conditions present in the BSA. Based on this evaluation, it was determined whether the special-status species identified by the searches had potential to occur in the BSA (see species table in **Appendix B**). Special-status species that were observed or determined to potentially occur in the BSA based on availability of suitable habitat or other factors (e.g., scat, nests, and dens) are discussed more fully below. Species determined unlikely to occur in the BSA based on these same factors are not discussed further. All sensitive habitats were also evaluated.

The following species appear on the lists of sensitive plant and animal species but have no listed special status:

- Four bird species:
 - Great egret (*Ardea alba*)
 - Great blue heron (*Ardea herodias*)
 - Snowy egret (*Egretta thula*)
 - Black-crowned night heron (*Nycticorax nycticorax*)
- Six invertebrate species:
 - American bumble bee (*Bombus pensilvanicus*)
 - Midvalley fairy shrimp (*Branchinecta mesoamericana*)
 - Sacramento Valley tiger beetle (*Cicindela hirticollis abrupta*)
 - Western ridged mussel (*Gonidea angulata*)
 - California linderiella (*Linderiella occidentalis*)
 - Antioch multilid wasp (*Myrmosula pacifica*)
- Two mammal species:
 - Silver-haired bat (*Lasionycteris noctivagans*)
 - Hoary bat (*Lasiurus cinereus*)

Because little to no information is available for these species and/or they have no protection status, they are not included in the table in **Appendix B** and are not discussed further in this document.

5.1 SPECIAL-STATUS PLANT SPECIES

A total of 33 special-status plant species were identified in the record searches. Species that require specific habitat not present in the BSA were eliminated as potentially occurring and are not discussed further. No special-status plant species were observed in the BSA during the reconnaissance surveys, and none are expected to occur within the BSA as described in the Table in **Appendix B**. The BSA is not within critical habitat for any special-status plants.

5.2 SPECIAL-STATUS WILDLIFE SPECIES

A total of 40 special-status wildlife species were identified in the record searches. Species that require specific habitat not present in the BSA were eliminated as potentially occurring and are not discussed further (e.g., chaparral, vernal pool, and marsh species). Of the 40 special-status wildlife species, 2 were either observed or determined to have the potential to occur in the BSA or otherwise warranted further discussion. These species included Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*). All species with the potential to occur within the BSA are discussed below. The BSA is not within critical habitat for either of these species.

5.2.1 Swainson's Hawk

Swainson's hawk (SWHA) is a State threatened species with no federal status. Most SWHA are long-distance migrants, leaving California by the end of October to winter in South America and returning north to nest by the end of March. A few individuals overwinter in the Sacramento-San Joaquin River Delta region. In California, SWHA nest on the Modoc Plateau, the Great Basin, and throughout the Central Valley from about the Red Bluff area south to Kern County. Nests are built in the tops of large trees, often those associated with riparian habitats, or isolated trees in agricultural areas. They are known to forage up to 10 miles from their nest sites.

SWHA are well documented in West Sacramento; there are 62 records of SWHA within a 5-mile radius. The closest record (EONDX: 56606) is for a nest in a black walnut approximately 0.4 mile southeast of the BSA, last observed in 2005.

No focused surveys for listed special-status birds were conducted for the project, and no SWHA were observed. The potential for SWHA to occur within the BSA is based on the literature search, visual assessments, and current scientific and commercial data available. The BSA does not contain suitable nesting habitat; however, ruderal grasslands provide suitable foraging habitat. Based on the presence of suitable foraging habitat and the high number of recorded occurrences SWHA has a moderate potential to occur in the BSA.

5.2.2 White-Tailed Kite

White-tailed kite is a California fully protected species. Its Pacific population ranges from southwestern Washington, south through the Willamette Valley of Oregon, and down the entire coast of California and Central Valley to Baja California. Separate populations live in southern Florida, Texas, and Louisiana south through Mexico. This raptor species uses trees in open areas for nesting and open grasslands and marshes for foraging.

There is one known record of occurrence in the CNDDDB within 5 miles of the BSA. This record (EONDX: 114018) is for a nest in a large oak tree in a residential neighborhood approximately 2.7 miles northeast of the BSA, last observed in 2017.

No focused surveys for listed special-status birds were conducted for the project, and no white-tailed kites were observed. The potential for white-tailed kite to occur within the BSA is based on the literature search, visual assessments, and current scientific and commercial data available. The BSA does not contain suitable nesting habitat; however, ruderal grasslands provide suitable foraging

habitat. Based on the presence of suitable foraging habitat and the low number of recorded occurrences white-tailed kites have a low potential to occur in the BSA.

5.2.3 Nesting Migratory Birds and Raptors

Disturbance of migratory birds and raptors during their nesting season (February 1 to August 31) could result in “take”, which is prohibited under the MBTA and Section 3513 of the California Fish and Game Code. California Fish and Game Code (Section 3503) also prohibits take or destruction of bird nests or eggs.

No focused surveys for listed special-status birds or other nesting species were conducted for the project. In total, 12 bird species protected under the MBTA were observed in the BSA during the field surveys (see Section 4.5). No nesting migratory birds were observed in the BSA or immediate vicinity during field surveys; however, protocol nesting bird surveys were not conducted. Migratory birds could nest or forage in the ruderal grasslands within the BSA. Trees, shrubs, and other vegetation surrounding the BSA may also provide nesting and foraging habitat for these birds.

5.3 SENSITIVE HABITATS

The literature review identified four special-status natural communities in the vicinity of the BSA: elderberry savanna, great valley cottonwood riparian forest, northern claypan vernal pool, and northern hardpan vernal pool. None of these special-status natural communities are present; the BSA does not contain any natural communities of special concern.

6.0 IMPACTS, AVOIDANCE AND MINIMIZATION, AND MITIGATION

This section identifies potential impacts to biological resources that could result from the implementation of the proposed project. The criteria by which significance is determined is included in Section 2.7. The following information includes a discussion of impacts and mitigation measures, as necessary, based on these criteria.

6.1 PROJECT IMPACTS

The following sections describe the project's potential impacts to biological resources within the BSA. Construction of the proposed project would result in potential impacts to foraging habitat for SWHA and white-tailed kite, as well as other migratory birds and raptors. The project would result in permanent impacts to ruderal grasslands, as discussed below.

- a. 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 the CDFW or USFWS*

Implementation of the project could adversely affect special-status wildlife species as a result of project development as described in Section 1.2. The entirety of the BSA would be converted from ruderal grasslands to developed land uses, resulting in the permanent loss of 58.34 acres of potential foraging habitat for special-status wildlife.

Impact BIO-1: Development of the project may result in impacts to Swainson's hawks, white-tailed kites, and other nesting birds during construction (Potentially Significant).

Proposed construction activities would result in permanent loss of 58.34 acres of ruderal grasslands that provide suitable foraging habitat for Swainson's hawks, white-tailed kites, and other common bird species protected under the MBTA and/or California Fish and Game Code. No suitable nest trees for Swainson's hawks or white-tailed kites occur within the BSA. However, construction-related disturbance (e.g., noise, vehicle traffic, personnel working adjacent to occupied nesting habitat) could indirectly impact other nesting birds in the vicinity of the project by causing adults to abandon nests in nearby trees or other vegetation, resulting in nest failure and reduced reproductive potential if work is conducted during the nesting season (February 1 to August 31),

Implementation of **Mitigation Measures BIO-1** through **BIO-4** would reduce potential impacts to SWHA, white-tailed kites, and other nesting birds to a **less than significant** level by ensuring the project would not have a substantial adverse effect on these protected species. This measure is consistent with AMM16, Minimize Take and Adverse Effects on Swainson's Hawk and White-Tailed Kite, in the Yolo HCP/NCCP.

Mitigation Measure BIO-1

Preconstruction Surveys (Swainson's hawks and White-Tailed Kite).

In accordance with guidance provided by the Swainson's Hawk Technical Advisory Committee (2000), if work begins during the nesting season (March 15 to August 30), an early season preconstruction survey for nesting Swainson's hawks (SWHA) shall

be conducted between January and March in the BSA and immediate vicinity (an approximately 1,320-foot [0.25-mile] radius) by a qualified biologist when tree foliage is relatively sparse and nests are easy to identify. A second preconstruction survey for nesting SWHA shall be conducted in the BSA and immediate vicinity (an approximately 1,320-foot [0.25-mile] radius) by a qualified biologist no more than 15 days prior to initiation of earth-moving activities.

Mitigation Measure BIO-2

Active Nest Buffer (SWHA and White-Tailed Kite). If nesting SWHA or white-tailed kite are found within the survey area, a 1,320-foot (0.25 mile) initial temporary nest disturbance buffer shall be established. If project activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, a qualified biologist shall evaluate the potential for the project to disturb nesting activities. CDFW shall be contacted to review the evaluation and determine if the project can proceed without adversely affecting nesting activities. Work will only be allowed to proceed within the temporary nest disturbance buffer.

Disturbance of active nests shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged or that the nest has failed. Work is allowed to proceed within the temporary nest disturbance buffer if SWHA are not exhibiting agitated behavior (e.g., defensive flights at intruders, getting up from a brooding position, flying off the nest). A qualified biologist shall be on-site daily while construction activities are occurring within the temporary nest disturbance buffer to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.

Mitigation Measure BIO-3

Preconstruction Survey (Nesting Birds). If work begins during the nesting season (February 1 and August 31), preconstruction surveys shall be conducted by a qualified biologist no more than 14 days prior to commencement of any construction activities.

Mitigation Measure BIO-4

Active Nest Buffer (Nesting Birds). If active nests are identified during the preconstruction survey(s), appropriate buffers shall be established to protect nesting activity. The width of the buffer zone shall be based on a site-specific analysis considering the species, nest location, and observed behavior prepared by a qualified Biologist. Initial buffer standards shall be a minimum of 25 feet for non-raptor bird species and a minimum of 250 feet for raptor species. All construction work shall be conducted outside any designated avoidance zones. Standard buffer zones shorter or larger than minimum buffers may be required depending upon the status

of the nest and the construction activities occurring in the vicinity of the nest. The biologist shall have full discretion for establishing a suitable buffer. The buffer area(s) shall be closed to all construction personnel and equipment until the young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the avoidance buffer.

As a participant of the Yolo HCP/NCCP, the developer would be required to pay a land cover fee to the Conservancy to compensate for the loss of SWHA and white-tailed kite foraging habitat and the loss of grassland habitat in the region.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS

The BSA does not contain any special-status plant communities or natural communities of special concern; therefore, the project would have **no effect** on riparian habitat or other sensitive natural community.

c. Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

The BSA does not contain any aquatic resources; therefore, the project would have **no effect** on federally protected wetlands.

d. 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

As stated in Section 4.5.1, wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. There is no evidence that the ruderal grasslands in the BSA provide a significant wildlife movement corridor or migration route. The BSA is heavily impacted by human activity (e.g., agriculture, recreation use of nearby open space, residential occupation) and provides little to no connectivity between regional open spaces in the vicinity. The nearest significant wildlife movement corridors likely include the Sacramento River, the Yolo Bypass Wildlife Area, and the Sacramento River Deep Water Ship Channel.

Native wildlife nursery sites are defined as sites where wildlife concentrate for hatching and/or raising young (e.g., rookeries, spawning areas, and bat colonies). No rookeries, spawning areas, or bat colonies are present in the BSA. Therefore, while the project would alter existing wildlife movement patterns for common wildlife species adapted to human activity, it would not interfere substantially with the movement of native resident wildlife or with established native resident or migratory wildlife corridors, and impacts to wildlife movement or nursery sites would be **less than significant**.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

The proposed project is in West Sacramento and is therefore subject to provisions of the City's Tree Preservation Ordinance as described in Section 2.9. Two trees are within the BSA along Marshall Road: a valley oak (*Quercus lobata*) and an elm (*Ulmus sp.*). Neither tree meets the definition of a "Heritage tree", "Landmark tree", or "Street tree" as defined in the City's ordinance (8.24.020). Both trees would be removed as a result of project construction and may require issuance of a tree permit from the City's tree administrator.

The project will implement **Mitigation Measure BIO-5** to reduce project impacts trees in the BSA. Therefore, the project would not conflict with local policies or ordinances protecting biological resources.

Mitigation Measure BIO-5

Tree Permit. The project proponent shall consult with the City of West Sacramento's tree administrator to determine if a tree permit is required.

- An International Society of Arboriculture Certified Arborist shall measure all trees within the BSA to determine the number of replacement plantings. Diameter shall be measured at 4 feet 6 inches from ground level.
- The following information shall be included in a tree plan, which shall be provided to the tree administrator:
 - Contour map showing the location, size, species, and condition of all existing trees on the property proposed for development.
 - Identification of those tree(s) that the applicant proposes to preserve or remove and the reason for such removal.
 - The condition of the tree(s) with respect to disease, general health, damage, public nuisance of falling, proximity to existing or proposed structures, interference with utility services, and whether or not the tree acts as a host for a plant that is parasitic. If the removal of the tree(s) is requested for this reason, a written evaluation of the health and status of the tree(s) shall be prepared by an International Society of Arboriculture Certified Arborist.
 - A program for the replacement of any trees proposed to be removed.

The project will mitigate for the loss of trees through on-site replacement plantings or payment of an in-lieu fee to the City. Replacement trees will be planted at the rate of 1-inch diameter of replacement plant for every 1-inch diameter of tree removed. Replacement trees may be a combination of 15-gallon size trees, which are the equivalent of a 1-inch diameter tree, or 24-inch box trees, which are the equivalent of a 3-inch diameter tree. Tree plantings required for the replacement of removed trees shall be in addition to those required as a condition of a development project pursuant to the West Sacramento Landscape Development Guidelines or as specified by an adopted planned development or specific plan landscape regulations pursuant to Section 17.35.020(A)(5) of the City's municipal code.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plans

The Yolo HCP/NCCP is applicable to projects in West Sacramento and covers activities that would have an adverse impact on any of the 12 covered species. The species covered by the Yolo HCP/NCCP that may potentially occur in the BSA include Swainson's hawk and white-tailed kite.

The project would be implemented in accordance with the Yolo HCP/NCCP avoidance and minimization measures. Through payment of HCP/NCCP fees or equivalent mitigation, the project would contribute to the HCP/NCCP's conservation strategy, thereby benefiting the above-listed covered species. With incorporation of HCP/NCCP fees or equivalent mitigation and adherence to other HCP/NCCP avoidance and minimization measures, this project would not conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

7.0 LIMITATIONS, ASSUMPTIONS, AND USER RELIANCE

This document has been prepared in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, as well as specific historical and literature sources. The biological investigation is limited by the scope of work performed as described herein. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were likely not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present and, therefore, cannot be considered definitive. Biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological surveys do not guarantee that the organisms are not present and would not be discovered in the future within the site. For example, mobile animal species could occupy the site on a transient basis or re-establish populations in the future. No other guarantees or warranties, expressed or implied, are provided.

APPENDIX A

CNDDDB, CNPS, AND USFWS SPECIES LISTS



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Grays Bend (3812166) OR Taylor Monument (3812165) OR Rio Linda (3812164) OR Davis (3812156) OR Sacramento West (3812155) OR Sacramento East (3812154) OR Saxon (3812146) OR Clarksburg (3812145) OR Florin (3812144))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Anarhynchus montanus</i> mountain plover	ABNNB03100	None	None	G3	S2	SSC
<i>Anarhynchus nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G1	S1	SSC
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Astur cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
<i>Atriplex cordulata var. cordulata</i> heartscale	PDCHE040B0	None	None	GNRT2	S2	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
<i>Bombus pensylvanicus</i> American bumble bee	IIHYM24260	None	None	G3G4	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>Carex comosa</i> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<i>Centromadia parryi ssp. parryi</i> pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<i>Chloropyron palmatum</i> palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Cuscuta obtusiflora var. glandulosa</i> Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Elderberry Savanna</i> Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Hypomesus transpacificus</i> Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G4	S3S4	
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Lasthenia chrysantha</i> alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	PDAP119030	None	Rare	G2	S2	1B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Melospiza melodia pop. 1</i> song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
<i>Myrmosula pacifica</i> Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
<i>Nannopterum auritum</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
<i>Neostapfia colusana</i> Colusa grass	PMPOA4C010	Threatened	Endangered	G1	S1	1B.1
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
<i>Oncorhynchus tshawytscha</i> pop. 11 chinook salmon - Central Valley spring-run ESU	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
<i>Oncorhynchus tshawytscha</i> pop. 7 chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5T2Q	S2	
<i>Plagiobothrys hystriculus</i> bearded popcornflower	PDBOR0V0H0	None	None	G2	S2	1B.1
<i>Plegadis chihi</i> white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Sidalcea keckii</i> Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
<i>Spirinchus thaleichthys</i> pop. 2 longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
<i>Symphyotrichum lentum</i> Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Tuctoria mucronata</i> Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1	1B.1
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 80

Search Results

33 matches found. Click on scientific name for details

Search Criteria: , 9-Quad include [3812155:3812165:3812164:3812144:3812154:3812145:3812166:3812156:3812146]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<i>Astragalus depauperatus</i>	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2012 Tim Kellison
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	Yes	1994-01-01	No Photo Available
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	GNRT2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.
<i>Atriplex depressa</i>	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2009 Zoya Akulova
<i>Brodiaea rosea</i> ssp. <i>vallicola</i>	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G4G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
<i>Carex comosa</i>	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01	 Dean Wm. Taylor 1997

<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.2	Yes	2004-01-01	 © 2016 John Doyen
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	Yes	2007-05-22	 © 2019 John Doyen
<i>Chloropyron palmatum</i>	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011-08-24	No Photo Available
<i>Downingia pusilla</i>	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	Yes	2016-09-13	No Photo Available
<i>Extriplex joaquinana</i>	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1988-01-01	No Photo Available
<i>Fritillaria agrestis</i>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
<i>Hesperevax caulescens</i>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen

<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
<i>Lasthenia chrysantha</i>	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30	 © 2009 California State University, Stanislaus
<i>Legenere limosa</i>	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 © 2025 Adam Searcy
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May	None	None	G4T1	S1	1B.2	Yes	1994-01-01	 2018 Jennifer Buck
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	Ranunculaceae	annual herb	Mar-Jun	None	None	G5T2Q	S2	3.1		1980-01-01	No Photo Available
<i>Navarretia cotulifolia</i>	cotula navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.2	Yes	2001-01-01	 © 2020 Zoya Akulova
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G4T2	S2	1B.1	Yes	1994-01-01	 © 2018 Barry Rice
<i>Neostapfia colusana</i>	Colusa grass	Poaceae	annual herb	May-Aug	FT	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available

<i>Plagiobothrys hystriculus</i>	bearded popcornflower	Boraginaceae	annual herb	Apr-May	None	None	G2	S2	1B.1	Yes	1974-01-01	 © 2006 Robert E. Preston
<i>Puccinellia simplex</i>	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2		2015-10-15	 © 2017 Chris Winchell
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
<i>Sidalcea keckii</i>	Keck's checkerbloom	Malvaceae	annual herb	Apr-May(Jun)	FE	None	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
<i>Symphyotrichum lentum</i>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Trifolium hydrophilum</i>	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor
<i>Tuctoria mucronata</i>	Crampton's tuctoria or Solano grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available

Showing 1 to 33 of 33 entries

Go to top

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2025. Rare Plant Inventory (online edition, v9.5.1). Website <https://www.rareplants.cnps.org> [accessed 8 October 2025].
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish And Wildlife
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Phone: (916) 930-5603 Fax: (916) 930-5654



In Reply Refer To:

10/08/2025 17:09:48 UTC

Project Code: 2025-0074810

Project Name: Brar Farms Residential Development

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed, and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<https://www.fws.gov/program/eagle-management/working-around-eagles>). Additionally, wind energy projects should follow the wind energy guidelines (<https://www.fws.gov/node/266177>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:<https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>; and <http://www.towerkill.com>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

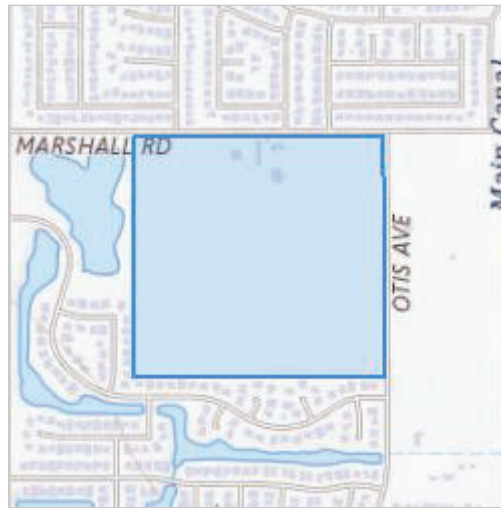
This species list is provided by:

San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
(916) 930-5603

PROJECT SUMMARY

Project Code: 2025-0074810
Project Name: Brar Farms Residential Development
Project Type: Residential Construction
Project Description: LSA Project No. 20252264
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.53287505,-121.5703946953515,14z>



Counties: Yolo County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered

REPTILES

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Western Spadefoot <i>Spea hammondi</i> Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

NAME	STATUS
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> For information on why this critical habitat appears for your project, even though Delta Smelt is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/321#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: West Sacramento city
Name: Anna Van Zuuk
Address: 1504 Eureka Road
Address Line 2: Suite 310
City: Roseville
State: CA
Zip: 95661
Email: anna.vanzuuk@lsa.net
Phone: 9167727450

APPENDIX B

POTENTIAL FOR SPECIAL-STATUS SPECIES TO OCCUR IN THE BIOLOGICAL STUDY AREA

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Plants					
<i>Astragalus pauperculus</i>	Depauperate milk-vetch	US: - CA: - CRPR: 4.3	Annual found in openings on vernal moist volcanic clay soils in chaparral, cismontane woodlands, and valley and foothill grasslands (195–3,985 feet in elevation). Blooms March–June.	No	No suitable habitat is present. The BSA does not contain vernal moist volcanic clay soils, chaparral, or cismontane woodland habitat.
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	US: - CA: - CRPR: 1B.1	Annual herb found on alkaline flats and vernal mesic meadows in valley and foothill grasslands (subalkaline flats) (5–245 feet in elevation). Blooms April – May.	No	No suitable habitat is present. The BSA does not contain alkaline flats or vernal mesic areas.
<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	US: - CA: - CRPR: 1B.2	Annual herb found on alkaline flats and vernal moist meadows in playas, valley and foothill grasslands (adobe clay), and vernal pools (5-195 feet in elevation). Blooms March – June.	No	No suitable habitat is present. The BSA does not contain alkaline soils or vernal mesic areas.
<i>Atriplex cordulata</i> var. <i>cordulata</i>	Heartscale	US: - CA: - CRPR: 1B.2	Annual herb found on saline and alkaline soils in chenopod scrub, meadows and seeps, and sandy valley and foothill grasslands (0-785 feet in elevation). Blooms April – October.	No	No suitable habitat is present. The BSA does not contain saline, alkaline, or sandy soils.
<i>Atriplex depressa</i>	Brittlescale	US: - CA: - CRPR: 1B.2	Annual herb found on alkaline or clay soils in mesic meadows, seeps, playas, or vernal pools in chenopod scrub and valley and foothill grasslands (5-1,050 feet in elevation). Blooms June – October.	No	No suitable habitat is present. The BSA does not contain vernal mesic areas, seeps, playas, or vernal pools.
<i>Brodiaea rosea</i> ssp. <i>vallicola</i>	Valley brodiaea	US: - CA: - CRPR: 4.2	Perennial bulbiferous herb found on silty soils associated with alluvial terraces in vernal pools in valley and foothill grasslands (35–1,100 feet in elevation). Blooms April–early June.	No	No suitable habitat is present. The BSA does not contain silty alluvial terraces or vernal pools.
<i>Carex comosa</i>	Bristly sedge	US: - CA: - CRPR: 2B.1	Perennial rhizomatous herb found in wet places in coastal prairies, marshes and swamps (lake margins), and valley and foothill grasslands (0-2,050 feet in elevation). Blooms May – September.	No	No suitable habitat is present. The BSA does not contain wet areas, coastal prairies, marshes, or swamps.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Centromadia parryi</i> ssp. <i>parryi</i>	Pappose tarplant	US: - CA: - CRPR: 1B.2	Annual herb found in alkaline springs and seeps in chaparral, coastal prairie, coastal salt marshes and swamps, meadows and seeps, and vernal mesic valley and foothill grasslands (0-1,380 feet in elevation). Blooms May – September.	No	No suitable habitat is present. The BSA does not contain vernal mesic areas or alkaline springs or seeps.
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Parry's rough tarplant	US: - CA: - CRPR: 4.2	Annual herb found on the edges of marshes and vernal pools and disturbed sites in mesic valley and foothill grasslands (0-330 feet in elevation). Blooms May – October.	No	No suitable habitat is present. The BSA does not contain marshes, vernal pools, or mesic areas.
<i>Chloropyron palmatum</i>	Palmate-bracted bird's-beak	US: FE CA: SCE CRPR: 1B.1	Annual herb found in alkaline flats in chenopod scrub and valley and foothill grasslands (15–510 feet in elevation). Blooms May – October.	No	No suitable habitat is present. The BSA does not contain alkaline flats.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	US: - CA: - CRPR: 2B.2	Parasitic annual herb or vine often found on herbs include <i>Alternanthera</i> , <i>Dalea</i> , <i>Lythrum</i> , <i>Polygonum</i> , and <i>Xanthium</i> in freshwater marshes or swamps (50-920 feet in elevation). Blooms July – October.	No	No suitable habitat is present. The BSA does not contain marshes or swamps.
<i>Downingia pusilla</i>	Dwarf downingia	US: - CA: - CRPR: 2B.2	Annual herb found in mesic areas in valley and foothill grassland and vernal pools. Species appears to have an affinity for slight disturbance (i.e., scraped depressions, ditches) (3–1,460 feet elevation). Blooms March–May.	No	No suitable habitat is present. The BSA does not contain mesic areas or vernal pools.
<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	US: - CA: - CRPR: 1B.2	Perennial herb found on moist clay soils in vernal pools in valley and foothill grasslands (10–985 feet in elevation). Blooms April–August.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Extriplex joaquinana</i>	San Joaquin spearscale	US: - CA: - CRPR: 1B.2	Annual herb found on alkaline soils in playas, meadows and seeps in chenopod scrub and valley and foothill grasslands (5-2,740 feet in elevation). Blooms April – September.	No	No suitable habitat is present. The BSA does not contain alkaline soils.
<i>Fritillaria agrestis</i>	Stinkbells	US: - CA: - CRPR: 4.2	Perennial bulbiferous herb found on clay and sometimes serpentine soils in chaparral, cismontane woodland, pinyon and juniper	No	No suitable habitat is present. The BSA does not contain chaparral, cismontane woodlands, or pinyon and juniper

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			woodland, and valley and foothill grassland (33–5,102 feet elevation). Blooms March–June.		woodlands. Although the BSA does contain clay soils, these areas are regularly tilled for agriculture.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	US: - CA: SCE CRPR: 1B.2	Annual herb found in shallow water, margins of vernal pools (0–5,250 feet elevation). Blooms April–August.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Hesperervax caulescens</i>	Hogwallow starfish	US: - CA: - CRPR: 4.2	Annual herb found on drying shrink-swell clay soils of vernal pools, flats, and steep slopes (sometimes serpentine) in valley and foothill grasslands (below 1,655 feet in elevation). Blooms March – June.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	Woolly rose-mallow	US: - CA: - CRPR: 1B.2	Perennial herb found on wet banks of freshwater wetlands and marshes (below 395 feet in elevation). Blooms June – September. Often found in riprap on the sides of levees.	No	No suitable habitat is present. The BSA does not contain freshwater wetlands or marshes.
<i>Lasthenia chrysantha</i>	Alkali-sink goldfields	US: - CA: - CRPR: 1B.1	Annual herb found in vernal pools and wet saline flats (below 655 feet in elevation). Blooms February – June.	No	No suitable habitat is present. The BSA does not contain vernal pools or wet saline flats.
<i>Legenere limosa</i>	Legenere	US: - CA: - CRPR: 1B.1	Annual herb found in wet areas including vernal pools and ponds (5–2,885 feet in elevation). Blooms April–June.	No	No suitable habitat is present. The BSA does not contain vernal pools or ponds.
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's pepper-grass	US: - CA: - CRPR: 1B.2	Annual herb found on alkaline soils along vernal pool margins and salt marsh edges in pastures and valley and foothill grasslands (5–655 feet in elevation). Blooms March – May.	No	No suitable habitat is present. The BSA does not contain alkaline soils, vernal pools, or salt marshes.
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	US: - CA: - CRPR: 1B.1	Perennial herb found in intertidal marshes and on streambanks in riparian scrub (below 35 feet in elevation). Blooms April–November. Locally abundant where it occurs, but threatened by development, flood control, and agriculture.	No	No suitable habitat is present. The BSA does not contain intertidal marshes, streams, or riparian scrub.
<i>Myosurus minimus</i> ssp. <i>apus</i>	Little mouseltail	US: - CA: - CRPR: 3.1	Annual herb found in wet fields, vernal pools (alkaline), streambanks, and lake shores in valley and foothill grasslands (65–2,100 feet in elevation). Blooms March – June.	No	No suitable habitat is present. The BSA does not contain wet fields, vernal pools, streams, or lakes.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Navarretia cotulifolia</i>	Cotula navarretia	US: - CA: - CRPR: 4.2	Annual herb found on heavy soils in chaparral, cismontane woodlands, and valley and foothill grasslands (15–6,005 feet in elevation). Blooms May – June.	No	No suitable habitat is present. The BSA does not contain chaparral or cismontane woodlands. Although the BSA does contain clay soils, these areas are regularly tilled for agriculture and are heavily dominated by non-native ruderal forbs and agricultural grasses.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	US: - CA: - CRPR: 1B.1	Annual herb found in vernal pools in cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (15-5,710 feet in elevation). Blooms April – July.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Neostapfia colusana</i>	Colusa grass	US: FT CA: SCE CRPR: 1B.1	Annual grasslike herb found in adobe clay vernal pools (15–655 feet in elevation). Blooms May –August.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Plagiobothrys hystriculus</i>	Bearded popcornflower	US: - CA: - CRPR: 1B.1	Annual herb found in wet grasslands and on the margins of vernal pools in valley and foothill grasslands (below 900 feet in elevation). Blooms April – May.	No	No suitable habitat is present. The BSA does not contain wet areas or vernal pools.
<i>Puccinellia simplex</i>	California alkali grass	US: - CA: - CRPR: 1B.2	Annual grasslike herb found in a variety of mesic areas including saline flats, mineral springs, vernal pools, lake margins, wet meadows, and seeps in chenopod scrub and valley and foothill grasslands (5-3,050 feet in elevation). Blooms March – May.	No	No suitable habitat is present. The BSA does not contain vernal mesic areas.
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	US: - CA: - CRPR: 1B.2	Emergent perennial rhizomatous herb found in standing or slow-moving freshwater ponds, marshes, and ditches (0–2,135 feet in elevation). Blooms May–October.	No	No suitable habitat is present. The BSA does not contain standing or slow-moving freshwater ponds, marshes, or ditches.
<i>Sidalcea keckii</i>	Keck's checkerbloom	US: FE CA: - CRPR: 1B.1	Annual herb found on grassy slopes in cismontane woodlands and valley and foothill grasslands (245 – 2,135 feet in elevation). Blooms April – May.	No	No suitable habitat is present. The BSA does not contain grassy slopes. Grasslands within the BSA are dominated by nonnative ruderal forbs and agricultural grasses.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Symphotrichum lentum</i>	Suisun Marsh aster	US: - CA: - CRPR: 1B.2	Perennial rhizomatous herb found in brackish and freshwater marshes and swamps (0–10 feet in elevation). Blooms May–November.	No	No suitable habitat is present. The BSA does not contain marshes or swamps.
<i>Trifolium hydrophilum</i>	Saline clover	US: - CA: - CRPR: 1B.2	Annual herb found in open areas on alkaline soils in salt marshes, vernal pools, and mesic valley and foothill grasslands (0–985 feet in elevation). Blooms April – June.	No	No suitable habitat is present. The BSA does not contain alkaline soils, salt marshes, or vernal pools.
<i>Tuctoria mucronata</i>	Crampton's or Tuctoria or Solano grass	US: FE CA: SCE CRPR: 1B.1	Annual grasslike herb found in vernal pools and mesic valley and foothill grasslands (15 – 35 feet in elevation). Blooms April – August.	No	No suitable habitat is present. The BSA does not contain vernal pools or vernal mesic areas.
Invertebrates					
<i>Bombus crotchii</i>	Crotch's bumble bee	US: – CA: SCE	Now restricted to the Southern California coast and some areas around Sacramento, Crotch's bumble bee is a species in decline. Compared to the abundance of other bumble bees, Crotch's has declined by 98 percent. This bee is found in grassland and scrub habitat typically from March to August. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum. It is black and yellow on its abdomen with short even hair throughout its body.	No	There are no known records of occurrence in the CNDDDB or Xerces Society Bumble Bee Atlas within 5 miles of the BSA. Additionally, there are limited nectar resources present in the ruderal grasslands in the BSA due to agricultural activities (i.e., mowing and tilling). Low potential to occur based on lack of nearby occurrences, limited availability of nectar resources in the BSA, and limited distribution. Therefore, this species is not discussed further.
<i>Bombus occidentalis</i>	Western bumble bee	US: – CA: SCE	Western bumblebee was historically known throughout much of the mountain area and northern coast of California but is now largely confined to high elevation sites and a small handful of records on the Northern California coast (Xerxes petition, p. 34). It is known from as far south as the southern Sierra Nevada and south to San Luis Obispo County in coastal areas. It does not occur in the Tehachapi Mountains or adjacent valley or desert areas	No	There are no known records of occurrence in the CNDDDB or Xerces Society Bumble Bee Atlas within 5 miles of the BSA. Additionally, there are limited nectar resources present in the ruderal grasslands in the BSA due to agricultural activities (i.e., mowing and tilling). Low potential to occur based on lack of nearby occurrences, limited availability of nectar resources in the BSA, and limited distribution.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			(USDA, 2012. Bumblebees of the Western United States).		Therefore, this species is not discussed further.
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	US: FE CA: –	Found only in large vernal pools in California's Central Valley and one population in Ventura County. Typically inhabits large and turbid playa pools. Playa pools can remain inundated until well into the summer and are typically more than 175 feet in diameter.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	US: FT CA: –	Vernal pools and similar features in unplowed grassland areas. Pools must contain water continuously for at least 18 days in all but the driest years to allow for reproduction. Known from the Central Valley and adjacent foothill areas, the central coast and south coast ranges, from the transverse ranges near Santa Clarita, from the Santa Rosa Plateau, Skunk Hollow, and the Stowe Road vernal pool west of Hemet in Riverside County, and from northwest San Diego County. May also occur in Orange County. Occurs at up to about 2,300 feet elevation in areas north of Kern County and at up to 5,600 feet elevation in areas to the south.	No	No suitable habitat is present. The BSA does not contain vernal pools.
<i>Danaus plexippus</i>	Monarch Butterfly	US: FCT CA: -	Occurs throughout California wherever milkweed (<i>Asclepias</i> spp.) plants grow. Migration typically occurs September–October. Overwinters along the coast from northern Mendocino to Baja California, Mexico through January–February. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Adults breed from June–September and require milkweeds for laying eggs, larval development, and metamorphosis. Adults use	No	Although there are no CNDDB occurrences of this species within 5 miles of the BSA, there are iNaturalist database observations west and south of the BSA. However, there are limited nectar resources present in the ruderal grasslands in the BSA due to agricultural activities (i.e., mowing and tilling). No milkweed plants were observed in the BSA. Not expected to occur based on low abundance, limited availability of nectar resources in the

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			other flowing species for nectaring during the breeding season.		BSA, and limited distribution. Therefore, this species is not discussed further.
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	US: FT CA: —	Elderberry plants with bases greater than 1-inch diameter in chaparral and riparian habitats. Below about 880 meters (2,900 feet) elevation. Known from the Sacramento, American, San Joaquin, Kings, Kaweah, and Tule rivers and their tributaries.	No	No suitable habitat is present. No elderberry shrubs occur in the BSA.
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	US: FE CA: —	Grass-bottomed and mud-bottomed vernal pools and swales in unplowed grassland areas. Occurs in clear to highly turbid water. Known mostly from the northern and eastern Central Valley of California.	No	No suitable habitat is present. The BSA does not contain vernal pools.
Fish					
<i>Acipenser medirostris</i> . pop 1	Green sturgeon - Southern DPS	US: FT CA: SSC	Green sturgeon are primarily a marine species, spending many months off the West Coast of North America. They visit brackish estuaries and bays to feed and swim up freshwater rivers to spawn. They can spawn many times throughout their long lives and typically do so every 2–6 years. Juveniles feed on zooplankton and then shift to macroinvertebrates before entering the ocean and reaching maturity.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Archoplites interruptus</i>	Sacramento perch	US: — CA: SSC	Occupies sloughs, lakes, and slow-moving rivers; often found in warm reservoirs and ponds. Found in Clear Lake and Alameda Creek/Calaveras Reservoir; introduced into the upper Klamath basin, upper Pit River watershed, Walker River watershed, Mono Lake watershed, and Owens River watershed. Generally spawn from March through early August in shallow areas with abundant filamentous algae and macrophytes.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Hypomesus transpacificus</i>	Delta smelt	US: FT CA: SE	Populations occur in the San Francisco Estuary. Spawning occurs in tidally influenced backwater sloughs and channel edgewaters in the spring.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Oncorhynchus mykiss irideus</i> pop. 11	Steelhead - Central Valley DPS	US: FT CA: –	Populations occur and spawn in the Sacramento and San Joaquin rivers and their tributaries. Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo bay basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Oncorhynchus tshawytscha</i> pop. 11	Chinook salmon – Central Valley spring-run ESU	US: FT CA: ST	Adult numbers depend on pool depth and volume, amount of cover, and the proximity to gravel. With water temperatures below 27 degrees Celsius (80.6 degrees Fahrenheit).	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Oncorhynchus tshawytscha</i> pop. 7	Chinook salmon – Sacramento River winter-run ESU	US: FE CA: SE	Sacramento River below Keswick Dam; spawns in the Sacramento River but not in tributary streams.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	US: – CA: SSC	Sacramento splittail relies on brackish water and river-edge habitats for reproduction. Adults migrate upstream and spawn on floodplains in early Spring before returning downstream. Juveniles await in flooded vegetation areas for about a month and then follow receding water downstream to estuaries where they mature. Sacramento Splittail generally live up to 10 years and are restricted to the San Francisco Bay Area.	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.
<i>Spirinchus thaleichthys</i> pop. 2	Longfin smelt – San Francisco Bay-Delta DPS	US: FE CA: ST	Longfin smelt are found in the open water of estuaries in typically middle or deep water. The population from the gulf of the Russian River to the southern extent of the San Francisco Bay is protected. The delta extends	No	No suitable habitat is present. The BSA does not contain aquatic resources necessary to support this species.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			to tributaries in Sacramento, Stockton, and Tracy. Longfin smelt seem to inhabit both saltwater and freshwater areas.		
Amphibians					
<i>Ambystoma californiense</i>	California tiger salamander	US: FT CA: ST	Most commonly found in grasslands or open woodland habitats. Lives in vacant or mammal-occupied burrows (e.g., California ground squirrel, valley pocket gopher), and occasionally other underground retreats, throughout most of the year. Lays eggs on submerged stems and leaves, usually in shallow ephemeral or semi-permanent pools and ponds that fill during heavy winter rains, sometimes in permanent ponds.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain suitable aquatic habitat for this species. Therefore, this species is not expected to occur and is not discussed further.
<i>Spea hammondi</i>	Western spadefoot	US: FCT CA: SSC	Grasslands and occasionally hardwood woodlands; largely terrestrial but requires rain pools or other ponded water persisting at least three weeks for breeding; burrows in loose soils during dry season. Occurs in the Central Valley and adjacent foothills, the non-desert areas of Southern California, and Baja California.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain suitable aquatic habitat for this species. Therefore, this species is not expected to occur and is not discussed further.
Reptiles					
<i>Actinemys marmorata</i>	Northwestern pond turtle	US: FCT CA: SSC	Occurs in permanent or nearly permanent water sources such as ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and adjacent grasslands or other open habitat for egg-laying.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain aquatic habitat for this species. Therefore, this species is not expected to occur and is not discussed further.
<i>Thamnophis gigas</i>	Giant gartersnake	US: FT CA: ST	Found in wetlands including marshes, sloughs, ponds, small lakes, and streams as well as artificial waterways and agriculture wetlands. Giant garter snakes seem to enjoy rice field habitat which is flooded for grain production.	No	There are several CNDDDB records of occurrence within 5 miles of the BSA. The closest (EONDX: 93640) is from 2011 approximately 2.8 miles northwest. However, all records of this

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			They feed on aquatic species and use the flooded vegetation as cover. The snakes also require upland habitat, using burrows for overwintering. Predation keeps these snakes away from large bodies of water, including big rivers.		species are west of the Sacramento River Deep Water Ship Channel, which presents a dispersal barrier to this species; no suitable aquatic habitat is present within the BSA. Not expected to occur based on lack of suitable habitat and barriers to dispersal. Therefore, this species is not discussed further.
Birds					
<i>Agelaius tricolor</i>	Tricolored blackbird	US: – CA: ST/SSC	Open country. Forages in grassland and cropland habitats. Nests in large groups near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, or tall herbs. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs. Occurs in western Oregon, California, and northwestern Baja California.	No	Four known records of occurrence in the CNDDB within 5 miles of the BSA, of which only one is considered extant. This record (EONDx: 102787) observed a colony of adults engaged in nesting behavior in the Yolo Bypass Wildlife Area in 2005. Although ruderal grasslands may provide suitable foraging habitat for this species the BSA does not contain suitable emergent wetland vegetation for nesting. Low potential to occur based on low abundance, rare occurrences, and lack of suitable nesting habitat in the vicinity of BSA. Therefore, this species is not discussed further.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Ammodramus savannarum</i>	Grasshopper sparrow	US: – CA: SSC	An uncommon summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity Counties south to San Diego County. Found in dry, dense grassland, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Nests in slight depressions on the ground at the base of an overhanging clump of grasses or forbs.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA. No suitable habitat is present; ruderal grasslands within the BSA are subject to routine maintenance activities (i.e., mowing) and no longer meet the required structural variety of forbs and shrubs necessary to support this species. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Anarhynchus montanus</i>	Mountain plover	US: – CA: SSC	Occurs in short grasslands and plowed fields of the Central Valley from Sutter and Yuba counties south. Winter resident from September through March; does not nest in California. Frequents open plains with low, herbaceous or scattered shrub vegetation.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA. Although ruderal grasslands may provide marginally suitable migratory habitat for this species, this species is not well documented in the vicinity of the BSA and is generally considered uncommon. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Anarhynchus nivosus nivosus</i>	Western snowy plover	US: FT CA: SSC	Sandy coastal beaches, lakes, alkaline playas. Scattered locations along coastal California and Channel Islands, inland at Salton Sea and at various alkaline lakes.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain beaches, lakes, or alkaline playas. Therefore, this species is not expected to occur and is not discussed further.
<i>Astur cooperii</i>	Cooper's hawk	US: – CA: WL	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms or river floodplains; also live oaks.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain riparian habitats. Therefore, this species is not expected to occur and is not discussed further.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Athene cunicularia</i>	Burrowing owl	US: – CA: SCE/SSC	Open, treeless areas with low, sparse vegetation, usually on flat or gently sloping terrain, including grasslands, sparse scrub (cover less than 30 percent), farmland, airfields, airports, road embankments, cemeteries, urban vacant lots, desert areas, and other open habitat. They usually occupy ground squirrel burrows but may also utilize man-made structures such as culverts or debris piles, usually temporarily.	No	There are three known records of occurrence in the CNDDDB within 5 miles of the BSA. All three records are considered extirpated or possibly extirpated. Although ruderal grasslands may provide suitable foraging habitat for this species, the BSA does not contain suitable nesting habitat. Regular small mammal control activities by nearby residences and tilling of the BSA have resulted in a lack of small mammal burrows suitable for nesting and a limited number of prey items. Low potential to occur based on low abundance, rare occurrences, and limited availability of resources in the BSA. Therefore, this species is not discussed further.
<i>Buteo regalis</i>	Ferruginous hawk	US: – CA: WL	An uncommon winter resident and migrant at lower elevations and open grasslands in the Modoc Plateau, Central Valley, and Coast Ranges. Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. No breeding records from California.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA. Although ruderal grasslands may provide marginally suitable foraging habitat for this species, this species is not well documented in the vicinity of the BSA and is generally considered uncommon. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Buteo swainsoni</i>	Swainson's hawk	US: – CA: ST	Open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Breeds and nests in western North	Yes	This species is well documented in the region with 62 known records of occurrence in the CNDDDB within 5 miles of the BSA. The closest record (EONDX: 56606) is for a nest in a black walnut approximately 0.4 miles southeast of the BSA, last observed in 2005; this

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
			America; winters in South America. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. In Southern California, now mostly limited to spring and fall transient. Formerly abundant in California, with wider breeding range.		record is presumed extant. No suitable nesting habitat is present; however, the BSA does provide suitable foraging habitat for this species. See discussion in Section 5.2.1.
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	US: FT CA: SE	Found in riparian areas with dense patches of trees. It requires contiguous riparian tree groves that trap moisture and stay relatively cool. It is found to the West of the Rocky Mountains from June to September.	No	There is one known record of occurrence in the CNDDDB within 5 miles of the BSA. This record (EONDX: 96966) is northeast of the BSA in Sacramento and is considered extirpated by development. No suitable habitat is present in the BSA, and this species is thought to have been extirpated from Sacramento and Yolo counties. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Elanus leucurus</i>	White-tailed kite	US: – CA: CFP	Typically nests in riparian trees such as oaks, willows, and cottonwoods at low elevations. Forages in open country. Found in South America and in southern areas and along the western coast of North America.	Yes	There is one known record of occurrence in the CNDDDB within 5 miles of the BSA. This record (EONDX: 114018) is for a nest in a large oak tree in a residential neighborhood approximately 2.7 miles northeast of the BSA in 2017; this record is presumed extant. No suitable nesting habitat is present; however, the BSA does provide suitable foraging habitat for this species. See discussion in Section 5.2.2.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Falco columbarius</i>	Merlin	US: – CA: WL	An uncommon winter migrant that requires dense tree stands close to bodies of water. Can be found in wetlands, lakeshores, coastlines, open grasslands, savannahs, and woodlands.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain dense tree stands close to bodies of water. Therefore, this species is not expected to occur and is not discussed further.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	US: – CA: ST/CFP	Requires shallow water in salt marshes, freshwater marshes, wet meadows, or flooded grassy vegetation. Prefers areas of moist soil vegetated by fine-stemmed emergent plants, rushes, grasses, or sedges, with scattered small pools. Known from coastal California, northwestern Baja California, the lower Imperial Valley, and the lower Colorado River of Arizona and California. Now extirpated from virtually all of coastal Southern California.	No	There is one known record of occurrence in the CNDDDB within 5 miles of the BSA. This record (EONDX: 107313) is the only known Yolo County location of this species. Birds were heard calling from an island in a water basin within a residential development; this record is presumed extant. No suitable habitat is present. The BSA does not contain marshes or other suitable emergent wetland vegetation. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Melospiza melodia</i> pop. 1	Song sparrow ("Modesto" population)	US: – CA: SSC	Occurs in the northern Central Valley; high populations near the Butte sink area and Sacramento-San Joaquin River Delta. Found frequently along riparian corridors, particularly the Stanislaus and Cosumnes rivers. Sometimes observed near vegetated irrigation canals and levees. In the winter, this species may be found far from water, in open habitats with shrubs or tall herbs. Breeds in riparian thickets of willows or other shrubs, vines, or tall herbs; builds nest on ground.	No	There are two known records of occurrence in the CNDDDB within 5 miles of the BSA. The closest record (EONDX: 91048) observed birds feeding young in riparian scrub 2.4 miles southwest of the BSA in 2011; this record is presumed extant. No suitable habitat is present. No emergent wetland or riparian habitat is located within the BSA. Therefore, this species is not expected to occur in the BSA and is not discussed further.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Nannopterum auritum</i>	Double-crested cormorant	US: – CA: WL	Fairly common in lacustrine and riverine habitat of the Central Valley and coastal slope lowlands. Nests and roosts beside water on offshore rocks, islands, steep cliffs, dead branches of trees, wharfs, jetties, or transmission lines; sites must be devoid of vegetation.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain lacustrine or riverine habitat. Therefore, this species is not expected to occur and is not discussed further.
<i>Plegadis chihi</i>	White-faced ibis	US: – CA: WL	An uncommon summer resident in sections of Southern California and a rare visitor in the Central Valley, more widespread in migration. Forages in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures or croplands. Nests and roosts amidst dense, freshwater emergent vegetation such as bulrushes, cattails, reeds or low shrubs over water.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain fresh emergent wetland, shallow lacustrine waters, or irrigated or flooded pastures or cropland suitable for foraging; no nesting habitat is present. Therefore, this species is not expected to occur and is not discussed further.
<i>Progne subis</i>	Purple martin	US: – CA: SSC	Found in open forests, woodland, and riparian areas. Nests primarily in old woodpecker cavities, occasionally in human-made structures, such as bridges. In the Sacramento region, nesting almost always occurs in man-made structures, particularly bridges.	No	There are three known records of occurrence in the CNDDDB within 5 miles of the BSA. The closest record (EONDX: 54701) observed birds nesting in a bridge approximately 4.5 miles southwest of the BSA in 2003; this record is presumed extant. No suitable habitat is present. No bridges or riparian habitat are within the BSA. Therefore, this species is not expected to occur in the BSA and is not discussed further.
<i>Riparia riparia</i>	Bank swallow	US: – CA: ST	Nesting habitat is vertical banks of fine textured soils, most commonly along streams and rivers. In Southern California, common spring and fall transient in interior, very uncommon spring transient and rare fall transient along coast. Casual in winter.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain vertical banks near water to support this species.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
					Therefore, this species is not expected to occur and is not discussed further.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	US: FE CA: SE	Rare local summer resident below 600 meters. Inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically associated with willow, cottonwood, Baccharis, or wild blackberry.	No	There are two known records of occurrences in the CNDDDB within 5 miles of the BSA. The closest record (EONDx: 84261) observed 2 pairs in riparian scrub approximately 2.6 miles southwest of the BSA in 2011; this record is presumed extant. No suitable habitat is present. The BSA does not contain riparian scrub. Therefore, this species is not expected to occur and is not discussed further.
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	US: – CA: SSC	Moist shorelines, grasslands near water, and croplands. Feeds mainly on seeds and grains, also on insects. Uses dense herbaceous vegetation for cover and nests over water. Establishes territory in cattail and bulrush clumps and where big insects are abundant.	No	There are no CNDDDB occurrences of this species within 5 miles of the BSA and no suitable habitat is present. The BSA does not contain cattail or bulrush clumps near water to support this species. Therefore, this species is not expected to occur and is not discussed further.
Mammals					
<i>Antrozous pallidus</i>	Pallid bat	US: – CA: SSC	Most common in open, dry habitats with rocky areas for roosting. Day roosts in caves, crevices, rocky outcrops, tree hollows or crevices, mines and occasionally buildings, culverts, and bridges. Night roosts may be more open sites, such as porches and open buildings. Grasslands, shrublands, woodlands, and forest in western North America.	No	Potential foraging habitat is present in the BSA. No suitable rocky outcrops for daytime roost habitat are present within or adjacent to the BSA. There are no known occurrences within 5 miles of the BSA in the CNDDDB database. No night work is anticipated for this project. Therefore, this species is not expected to occur and is not discussed further.

Special-Status Species Potential to Occur in the Vicinity of the Biological Study Area

Scientific Name	Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Taxidea taxus</i>	American badger	US: – CA: SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	No	No suitable habitat is present; ruderal grasslands within the BSA do not contain suitably friable soils. Additionally, no potential burrows for this species were observed during reconnaissance surveys. There are no known occurrences within 5 miles of the BSA in the CNDDDB database. Therefore, this species is not expected to occur and is not discussed further.

Sources: CNDDDB (2025), CNPS (2025, USFWS IPaC (2025). Compiled by LSA.

Notes:

US: Federal Classifications

FE Listed as endangered.

FT Listed as threatened.

FC Candidate for federal Listing

CA: State Classifications

SE State-listed as endangered.

ST State-listed as threatened.

SC Candidate for listing as threatened or endangered.

CFP California Fully Protected. Refers to animals protected under Fish and Game Code sections 3511, 4700, 5050, and 5515.

SSC Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.

WL Watch List. Former SSC species that still warrant monitoring for their population status.

BSA = biological study area

CDFW = California Department of Fish and Wildlife

CNDDDB = California Natural Diversity Database

CRPR: California Rare Plant Rank

1A Presumed Extinct in California

1B Rare, Threatened, or Endangered in California and elsewhere

2A Plants presumed extirpated in California, but more common elsewhere

2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3 Plants about which more information is needed

4 Plants of limited distribution

CRPR Threat Code Extension:

.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Fairly endangered in California (20-80% occurrences threatened)

.3 Not very endangered in California (<20% of occurrences threatened)

CNPS = California Native Plant Society

USFWS = United States Fish and Wildlife Service

APPENDIX C

LIST OF PLANT AND WILDLIFE SPECIES OBSERVED

PLANT LIST

Brar Farms Residential Development - LSA Project No. 20252264

Scientific Name	Common Name	Family	Native?	Cal-IPC
<i>Achyrachaena mollis</i>	Blow wives	Asteraceae	Native	
<i>Allium triquetrum</i>	White flowered onion	Alliaceae	Non-native	
<i>Amsinckia intermedia</i>	Common fiddleneck	Boraginaceae	Native	
<i>Anthriscus caucalis</i>	Bur chervil	Apiaceae	Non-native	
<i>Avena fatua</i>	Wild oat	Poaceae	Non-native	Moderate
<i>Brassica nigra</i>	Black mustard	Brassicaceae	Non-native	Moderate
<i>Bromus diandrus</i>	Ripgut brome	Poaceae	Non-native	Moderate
<i>Carduus pycnocephalus</i>	Italian thistle	Asteraceae	Non-native	Moderate
<i>Centaurea solstitialis</i>	Yellow star thistle	Asteraceae	Non-native	High
<i>Cichorium intybus</i>	Chicory	Asteraceae	Non-native	
<i>Conium maculatum</i>	Poison hemlock	Apiaceae	Non-native	Moderate
<i>Convolvulus arvensis</i>	Field morning glory	Convolvulaceae	Non-native	
<i>Cynodon dactylon</i>	Bermuda grass	Poaceae	Non-native	Moderate
<i>Daucus sp.</i>	Wild carrot species	Apiaceae		
<i>Epilobium brachycarpum</i>	Tall annual willowherb	Onagraceae	Native	
<i>Erodium cicutarium</i>	Red stemmed filaree	Geraniaceae	Non-native	Limited
<i>Erodium moschatum</i>	White stemmed filaree	Geraniaceae	Non-native	
<i>Festuca perennis</i>	Italian ryegrass	Poaceae	Non-native	Moderate
<i>Foeniculum vulgare</i>	Fennel	Apiaceae	Non-native	Moderate
<i>Galium aparine</i>	Common bedstraw	Rubiaceae	Native	
<i>Geranium dissectum</i>	Cutleaf geranium	Geraniaceae	Non-native	Limited
<i>Helianthus annuus</i>	Common sunflower	Asteraceae	Native	
<i>Helminthotheca echioides</i>	Bristly ox-tongue	Asteraceae	Non-native	Limited
<i>Hordeum marinum</i>	Seaside barley	Poaceae	Non-native	Moderate
<i>Hordeum murinum</i>	Foxtail barley	Poaceae	Non-native	Moderate
<i>Hordeum vulgare</i>	Common barley	Poaceae	Non-native	
<i>Iris pseudacorus</i>	Yellowflag iris	Iridaceae	Non-native	Limited
<i>Juncus bufonius</i>	Common toad rush	Juncaceae	Native	
<i>Lactuca serriola</i>	Prickly lettuce	Asteraceae	Non-native	
<i>Lepidium latifolium</i>	Perennial pepperweed	Brassicaceae	Non-native	High
<i>Lupinus bicolor</i>	Miniature lupine	Fabaceae	Native	
<i>Lysimachia arvensis</i>	Scarlet pimpernel	Myrsinaceae	Non-native	
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	Lythraceae	Non-native	Limited
<i>Malva multiflora</i>	Cretan mallow	Malvaceae	Non-native	
<i>Malva nicaeensis</i>	Bull mallow	Malvaceae	Non-native	
<i>Malvella leprosa</i>	Alkali mallow	Malvaceae	Native	
<i>Medicago polymorpha</i>	Bur clover	Fabaceae	Non-native	Limited
<i>Narcissus pseudonarcissus</i>	Daffodil	Amaryllidaceae	Non-native	
<i>Oxalis pes-capre</i>	Bermuda buttercup	Oxalidaceae	Non-native	Moderate
<i>Phalaris paradoxa</i>	Hood canarygrass	Poaceae	Non-native	
<i>Polygonum aviculare</i>	Prostrate knotweed	Polygonaceae	Non-native	
<i>Quercus lobata</i>	Valley oak	Fagaceae	Native	
<i>Raphanus sativus</i>	Wild radish	Brassicaceae	Non-native	Limited
<i>Rubus armeniacus</i>	Himalayan blackberry	Rosaceae	Non-native	High
<i>Rumex crispus</i>	Curly dock	Polygonaceae	Non-native	Limited
<i>Salix exigua</i>	Sandbar willow	Salicaceae	Native	
<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Tule	Cyperaceae	Native	
<i>Senecio vulgaris</i>	Common groundsel	Asteraceae	Non-native	
<i>Silybum marianum</i>	Milk thistle	Asteraceae	Non-native	Limited
<i>Sinapis arvensis</i>	Charlock mustard	Brassicaceae	Non-native	Limited
<i>Sonchus asper</i>	Spiny sowthistle	Asteraceae	Non-native	
<i>Stellaria media</i>	Chickweed	Caryophyllaceae	Non-native	

PLANT LIST

Brar Farms Residential Development - LSA Project No. 20252264

Scientific Name	Common Name	Family	Native?	Cal-IPC
<i>Thuja occidentalis</i>	Arborvitae	Cupressaceae	Non-native	
<i>Torilis arvensis</i>	Field hedge parsley	Apiaceae	Non-native	Moderate
<i>Triticum aestivum</i>	Common wheat	Poaceae	Non-native	
<i>Typha angustifolia</i>	Narrowleaf cattail	Typhaceae	Non-native	
<i>Ulmus sp.</i>	Elm species	Ulmaceae	Non-native	
<i>Vicia sativa</i> ssp. <i>sativa</i>	Spring vetch	Fabaceae	Non-native	
<i>Vicia villosa</i>	Hairy vetch	Fabaceae	Non-native	
<i>Washingtonia robusta</i>	Mexican fan palm	Arecaceae	Non-native	Moderate

WILDLIFE LIST

Brar Farms Residential Development - LSA Project No. 20252264

Scientific Name	Common Name	Family	Order
<i>Agelaius phoeniceus</i>	Red-winged blackbird	Icteridae	Passeriformes
<i>Anas platyrhynchos</i>	Mallard	Anatidae	Anseriformes
<i>Calypte anna</i>	Anna's hummingbird	Trochilidae	Apodiformes
<i>Cathartes aura</i>	Turkey vulture	Cathartidae	Cathartiformes
<i>Charadrius vociferus</i>	Killdeer	Charadriidae	Charadriiformes
<i>Columba livia</i>	Rock pigeon	Columbidae	Columbiformes
<i>Mimus polyglottos</i>	Northern mockingbird	Mimidae	Passeriformes
<i>Passer domesticus</i>	House sparrow	Passerellidae	Passeriformes
<i>Petrochelidon pyrrhonota</i>	Cliff swallow	Hirundinidae	Passeriformes
<i>Sayornis nigricans</i>	Black phoebe	Tyrannidae	Passeriformes
<i>Sceloporus occidentalis</i>	Western fence lizard	Phrynosomatidae	Squamata
<i>Sturnella neglecta</i>	Western meadowlark	Icteridae	Passeriformes
<i>Zenaida macroura</i>	Mourning dove	Columbidae	Columbiformes