Todd Smith, Planning Director
Planning and Environmental Review

Troy Givans, Director
Department of Community Development

Mitigated Negative Declaration

Pursuant to Title 14, Division 6, Chapter 3, Article 6, Sections 15070 and 15071 of the California Code of Regulations and pursuant to the Procedures for Preparation and Processing of Environmental Documents adopted by the County of Sacramento pursuant to Sacramento County Ordinance No. SCC-116, the Environmental Coordinator of Sacramento County, State of California, does prepare, make, declare, publish, and cause to be filed with the County Clerk of Sacramento County, State of California, this Mitigated Negative Declaration re: The Project described as follows:

1. **Control Number**: PLNP2023-00136

2. **Title and Short Description of Project**: Sacramento Metropolitan Fire District Vineyard Springs Fire Station Project

The proposed project would develop a new 10,300-square-foot fire station on undeveloped land that would accommodate three apparatus bays, eight dormitories, general living areas, office, storage improvements, emergency standby generator, covered truck wash, storage building, and public and secured parking areas. Project-related construction activities would occur throughout the proposed development area, which comprises approximately 1.5 acres of the 4.6-acre project site.

3. **Assessor's Parcel Number(s)**: 122-0140-010

4. **Location of Project**: Near the southeast corner of the Vintage Park Drive/Bradshaw Road intersection, on the east side of Bradshaw Road in the unincorporated Vineyard community of Sacramento County.

5. **Project Applicant**: Sacramento Metropolitan Fire District, Attn: Erin Castleberry, 10545 Armstrong Ave, Suite 200, Mather, CA 95655. Castleberry.erin@metrofire.ca.gov 916-859-4160

6. Said project will not have a significant effect on the environment for the following reasons:

   a. It will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

   b. It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

   c. It will not have impacts, which are individually limited, but cumulatively considerable.

   d. It will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.

7. As a result, thereof, the preparation of an environmental impact report pursuant to the Environmental Quality Act (Division 13 of the Public Resources Code of the State of California) is not required.

8. The attached Initial Study has been prepared by the Sacramento County Planning and Environmental Review Division in support of this Mitigated Negative Declaration. Further information may be obtained by contacting the Planning and Environmental Review Division at 827 Seventh Street, Room 225, Sacramento, California, 95814, or phone (916) 874-6141

Julie Newton

Digitally signed by Julie Newton
DN: cn=Julie Newton, o=Sacramento County, ou, email=newtonju@saccounty.net, c=US
Date: 2025.06.05 16:41:39 -07'00'

Julie Newton
Environmental Coordinator
County of Sacramento, State of California

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Appendix A: CalEEMod Air Quality Model Outputs

Appendix B: South Sacramento Habitat Conservation Plan Avoidance and Mitigation Measures

Due to their length, Appendix A & B are available to view at Sacramento County Planning and Environmental Review, 827 7th Street Room 225, Sacramento, CA 95814 during normal business hours, or online at http://planningdocuments.saccounty.gov

The direct link is:
https://planningdocuments.saccounty.gov/ViewProjectDetails.aspx?ControlNum=PLNP2023-00136

COUNTY OF SACRAMENTO
PLANNING AND ENVIRONMENTAL REVIEW
INITIAL STUDY

PROJECT INFORMATION

PROJECT TITLE: Sacramento Metropolitan Fire District Vineyard Springs Fire Station Project

CONTROL NUMBER: PLNP2023-00136

LEAD AGENCY: County of Sacramento
827 7th Street, Room 225
Sacramento, CA 95814

PROJECT SPONSOR: Sacramento Metropolitan Fire District
10545 Armstrong Avenue, Suite 200
Mather, CA 95655
Contact: Erin Castleberry

LOCATION: The project site is located at 8101 Bradshaw Road, near the southeast corner of the Vintage Park Drive/Bradshaw Road intersection in the unincorporated Vineyard community.

ASSESSOR'S PARCEL NUMBER: 122-0140-010

GENERAL PLAN DESIGNATION: Low-Density Residential (LDR)

ZONING: Agricultural Residential minimum lot size 10 acres (AR-10)

PROJECT DESCRIPTION

ENTITLEMENTS

The project consists of the following entitlement requests:

1. A **Conditional Use Permit** to allow a new fire station at 8101 Bradshaw Road in the Vineyard community zoned Agricultural Residential minimum lot size 10 acres (AR-10).

2. A **Design Review** to determine substantial compliance with the Sacramento County Countywide Design Guidelines (Design Guidelines).

The Sacramento Metropolitan Fire District has applied to Sacramento County (County) for the above entitlements to allow for the development of the Vineyard Springs Fire Station in the unincorporated Vineyard community (see Plate IS-1). The project site is near the southeast corner of the Vintage Park Drive/Bradshaw Road intersection, on the east side of Bradshaw Road (see Plate IS-2).

Project-related construction activities would occur throughout the proposed development area, which comprises approximately 1.5 acres of the 4.6-acre project site (see Plate IS-3). The remaining 3.1 acres of the project site would not be developed with permanent facilities as part of the project.

The proposed project would include a new 10,300-square-foot fire station that would accommodate three apparatus bays, eight dormitories, general living areas, office, storage improvements, emergency standby generator, covered truck wash, storage building, and public and secured parking areas.

PURPOSE AND NEED

In 2013, SMFD commissioned the Fire Department Growth Analysis to anticipate the number and location of new fire stations required to serve areas planned for new development. The analysis anticipated that a new fire station will serve portions of the Vineyard Springs, Florin-Vineyard Community, and North Vineyard Station Specific Plan areas in southern Sacramento County. In consideration of SMFD's response standards and planned development within the response area, SMFD has determined it is necessary to construct the new fire station at this time. Project goals include designing the fire station for safety and performance, low maintenance/durable systems and finishes, energy efficiency, flexibility for future growth, and efficient site utilization.

PROPOSED FACILITIES

The proposed project would include a new 10,300-square-foot fire station that would accommodate three apparatus bays, eight dormitories, general living areas, office, storage improvements, emergency standby generator, covered truck wash, storage building, and public and secured parking areas. Truck fueling would occur off-site at another SMFD fuel storage location. The emergency generator is attached to a 950-gallon diesel double-walled aboveground storage tank. The project includes a sand-oil interceptor for the truck wash bay that would not produce any hazardous waste material, nor would it require a wastewater discharge permit.

GRADING AND FLOODPLAINS

Most of the proposed facilities would be constructed outside of the 100-year floodplain (see Plate IS-3). However, to account for potential flooding along the development area's southern edge, the proposed facilities would be elevated about 1–2 feet above the base flood elevation. All finished floor elevations would be built at least 18 inches above the base flood elevation in accordance with Sacramento County requirements. Limited grading and filling would occur in the northern portion of the floodplain to accommodate the proposed facilities. The preliminary earthwork estimate is as follows: 802 cubic yards of cut, and 2,295 cubic yards of imported fill material, resulting in 1,493 cubic yards of net fill. Project implementation would result in excavation and grading on approximately 3 acres of the 4.6-acre project site (Plate IS-4).

Plate IS-1: Regional Site Vicinity Map

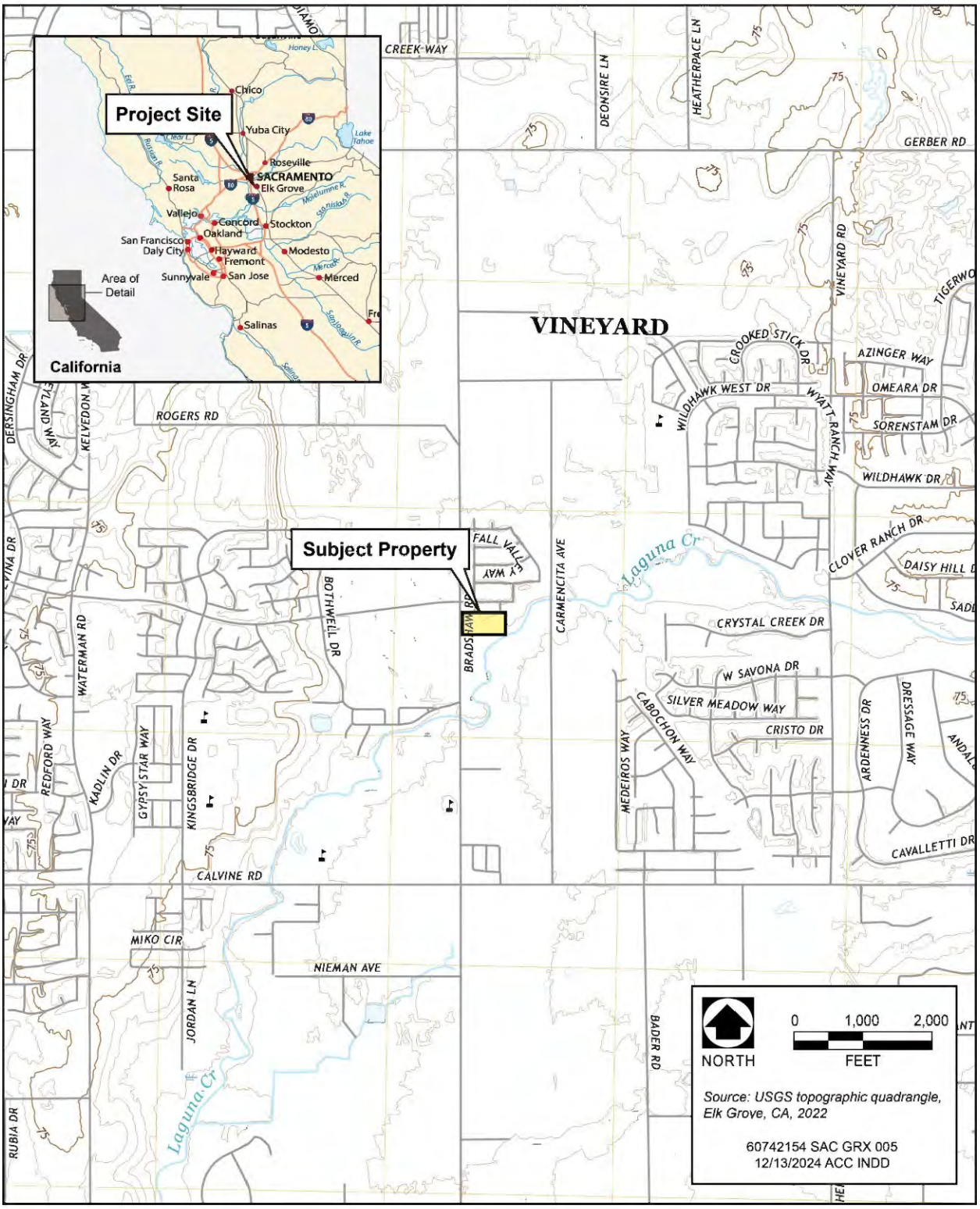


Plate IS-2: Project Location Map

Plate IS-3: Proposed Site Layout

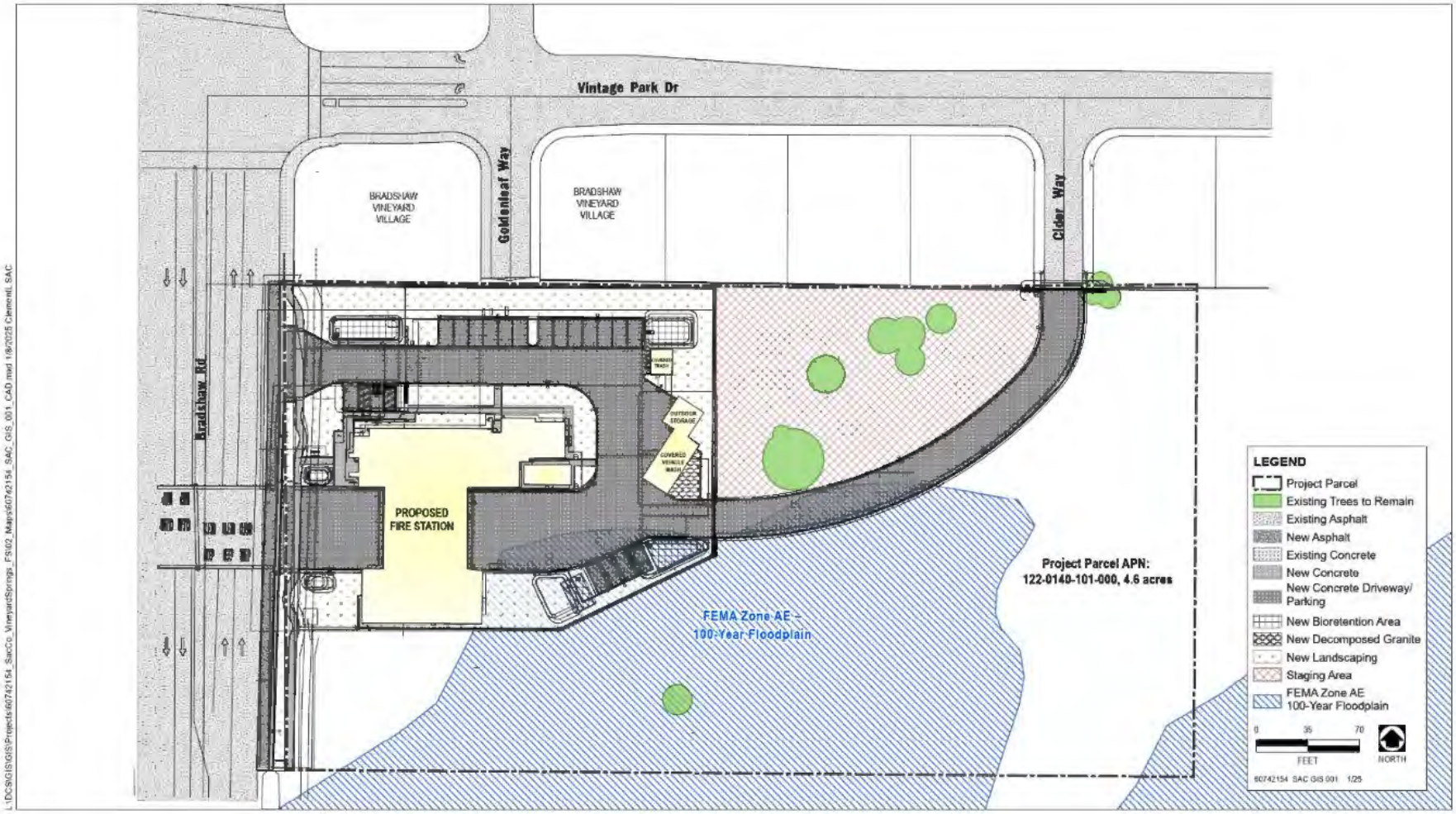
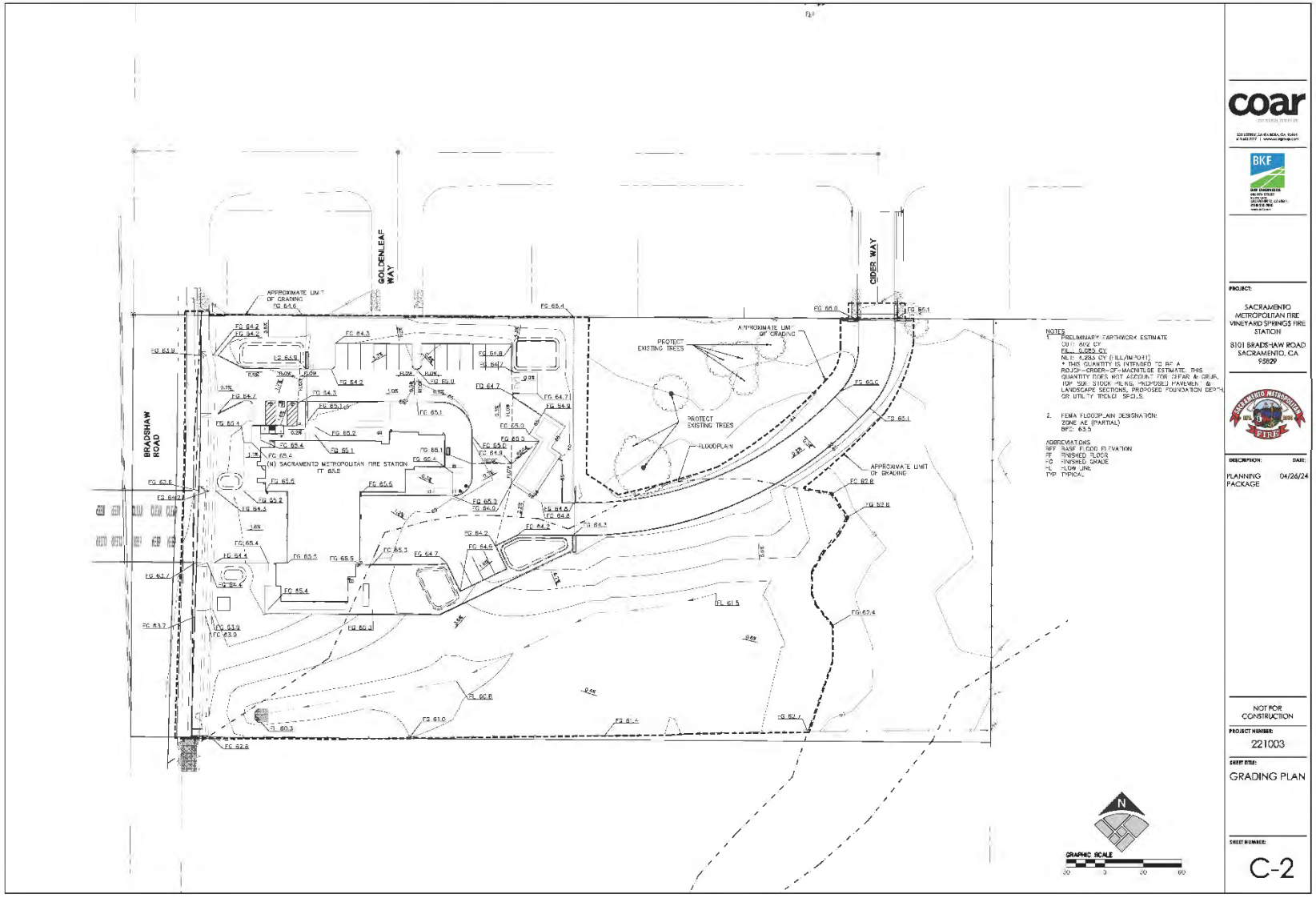


Plate IS-4: Grading Plan



CIRCULATION AND PARKING

The primary means of entry and egress for non-fire vehicles would be from a new entry constructed along Bradshaw Road north of the proposed fire station building (see Plate IS-3). A second, 65-foot-wide driveway on to Bradshaw Road would be built for fire vehicle egress from the station apparatus bay. Consistent with Sacramento County Department of Transportation requirements, a paved, 28-foot wide, secondary access road would be installed from the back of the new fire station to connect with Cider Way in Bradshaw Vineyard Village. The secondary access road would be gated and would be used primarily for ingress for returning fire trucks, and egress only for emergency situations.

Long-term bicycle parking spaces would be provided with bicycle racks inside of the proposed on-site storage building. Short-term bicycle parking spaces would be provided near the building entrance.

The proposed project would include two public parking spaces at the front of the property near Bradshaw Road (one of which would be Americans with Disabilities Act [ADA]-accessible), and 17 parking spaces for employees that would be situated on the north and southeast sides of the development area, behind a locked gate.

LANDSCAPING AND FENCING

The proposed project would include a 25-foot-wide landscape corridor along Bradshaw Road, as well as separated meandering sidewalks. Landscaping, including shrubs and screen trees would also be provided along the northwest side of the project site adjacent to the existing residential development in Bradshaw Vineyard Village. Fencing would be provided along the north, east, and south boundaries adjacent to the limit of the project development area in the form of 6-foot-high split face walls. The western property frontage fences and gates would consist of 6-foot-high ornamental metal.

STORMWATER DRAINAGE

The proposed project would include installation of a new on-site stormwater drainage system. The drainage system would include underground collection pipes, and a series of six biofiltration planter areas designed to provide stormwater quality detention and pretreatment as part of the project's Low Impact Development design (see Plate IS-3). From the biofiltration areas, stormwater would be routed to one of three discharge points to existing off-site storm drainage infrastructure owned by the Sacramento County Department of Water Resources: one discharge point to the north into an existing underground drainage line within Goldenleaf Way, and two discharge points to the west into an existing underground drainage line within Bradshaw Road. In addition, a new culvert would be installed at the southwestern property boundary to direct flood flows from the Laguna Creek floodplain into the existing Bradshaw Road drainage line.

UTILITIES

Water would be supplied by the Sacramento County Water Agency, Zone 41. New on-site water supply lines would be installed, which would connect to an existing off-site water supply line to the north within Goldenleaf Way.

Wastewater conveyance and treatment would be provided by the Sacramento Area Sewer District (SacSewer). New on-site wastewater conveyance lines would be installed according to SacSewer standards and specifications and would connect to an existing off-site 8-inch wastewater line in Goldenleaf Way that discharges to an existing 15-inch wastewater line in Vintage Park Drive. Wastewater treatment would be provided at the SacSewer's EchoWater Resource Recovery Facility in Elk Grove.

Electrical service would be provided by the Sacramento Metropolitan Utility District (SMUD). Existing underground 12-kV electrical lines are located along the project site's northern boundary. Existing overhead electrical lines are along the west side of Bradshaw Road. The project applicant would coordinate with SMUD to determine the appropriate location for connection to new on-site electrical lines, which would be installed underground.

Natural gas service will not be installed for the proposed project.

CONSTRUCTION AND STAGING

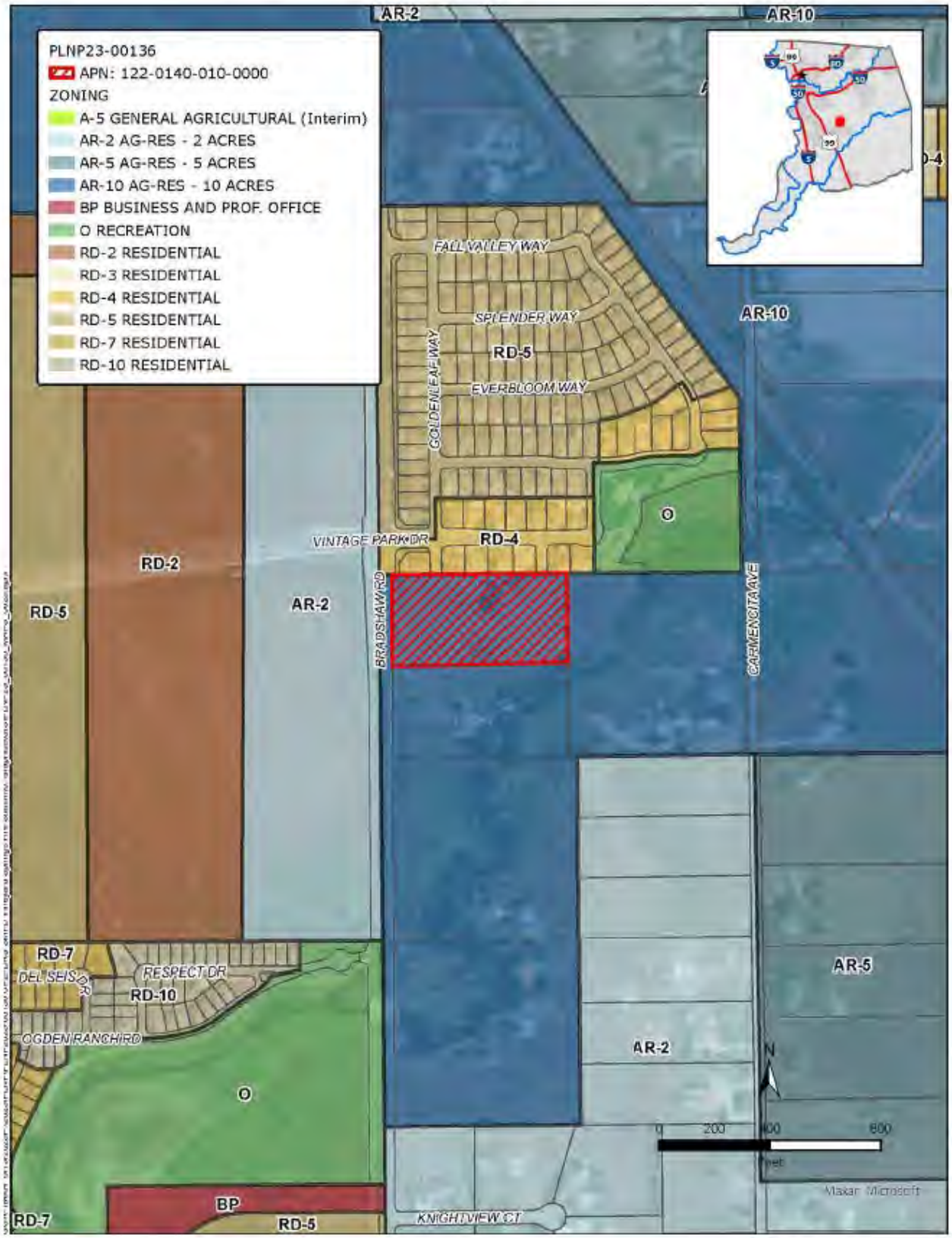
Project construction is anticipated to last approximately 23 months. Staging for all project-related construction activities would occur within the project site, adjacent to the east side of the station development, and north of the rear access road, as shown on Plate IS-3. Construction activities would include vegetation removal, grading, paving, excavation for underground utilities, building construction, application of architectural coatings, and landscaping. The maximum project construction depth is estimated to be 3.5 feet below ground surface. All existing trees on the project site would be retained except for one valley oak (*Quercus lobata*) tree at the intersection of the proposed project's rear access road and Cider Way.

It is anticipated that one of the northbound lanes on Bradshaw Road would be temporarily closed to allow construction of frontage improvements (e.g., curb, gutter, driveway, sidewalks, and landscaping). In addition, the southern end of Cider Way (where it dead ends at the project site) would also be temporarily closed to allow construction of the project's roadway, curb and gutter, and access gate.

SURROUNDING LAND USES AND SETTING

The project site consists of flat, undeveloped grassland with a few scattered trees. The project site is zoned Agricultural Residential minimum lot size 10 acres (AR-10) (see Plate IS-4). Existing residential (RD-4 and RD-5) land uses are immediately adjacent north of the site, within the Bradshaw Vineyard Village development. A small public park (Ted Klein Park, zoned Open Space) is present to the northeast. Immediately east and south are large agricultural/rural residential parcels zoned as AR-10, like the project site. Land west of the project site, across Bradshaw Road, is undeveloped and zoned Agricultural Residential minimum lot size two (2) acres (AR-2).

Plate IS-5: Zoning



The southern half of the project site is within a Federal Emergency Management Agency (FEMA) 100-year floodplain, designated Zone AE (i.e., a floodplain where the base flood elevations have been determined).

The only existing stormwater drainage facility at the project site is a linear, 2.5-feet wide roadside stormwater drainage ditch along the western edge of the project site along the eastern side of Bradshaw Road that transports runoff in a southerly direction. Currently, stormwater runoff also drains south across the project site via overland flow and discharges into Laguna Creek about 180 feet south of the project site.

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

Sacramento Metropolitan Air Quality Management District (SMAQMD)

Central Valley Regional Water Quality Control Board (RWQCB)

State Water Resources Control Board (SWRCB)

ENVIRONMENTAL CHECKLIST

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed the following Initial Study Checklist. The Checklist identifies a range of potential significant effects by topical area. The words "significant" and "significance" used throughout the following checklist are related to impacts as defined by the California Environmental Quality Act as follows:

1. **Potentially Significant** indicates there is substantial evidence that an effect MAY be significant. If there are one or more "Potentially Significant" entries an Environmental Impact Report (EIR) is required. Further research of a potentially significant impact may reveal that the impact is less than significant or less than significant with mitigation.

2. **Less than Significant with Mitigation** applies where an impact could be significant but specific mitigation has been identified that reduces the impact to a less than significant level.

3. **Less than Significant** indicates that either a project will have an impact, but the impact is considered minor.

4. **No Impact** indicates that a project does not impact the particular resource.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation" as indicated by the checklist on the following pages.

☐ Aesthetics

☐ Agriculture and Forestry Resources

☐ Airports

☒ Air Quality

☒ Biological Resources

☒ Cultural Resources

☐ Energy

☒ Geology and Soils

☒ Greenhouse Gas Emission

☐ Hazards and Hazardous Materials

☐ Hydrology and Water Quality

☐ Land Use and Planning

☐ Mineral Resources

☒ Noise

☐ Population and Housing

☐ Public Services

☐ Recreation

☐ Transportation

☒ Tribal Cultural Resources

☐ Utilities and Service Systems

☐ Wildfire

I. AESTHETICS

Aesthetics Checklist

Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views[1] of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Notes:

[1] Public views are those that are experienced from a publicly accessible vantage point.

ENVIRONMENTAL SETTING

VISUAL CHARACTER

The project site is located southeast of the corner of Bradshaw Road and Vintage Park Drive in the unincorporated Vineyard community, on the east side of Bradshaw Road. Bradshaw Road (north/south) and Vintage Park Drive west of Bradshaw Road are 4-lane arterial roadways, which are designed to carry relatively high traffic volumes. Vintage Park Drive to the east of Bradshaw Road is a 2-lane local roadway that provides access for residents in the Bradshaw Vineyard Village development.

Proposed development would occur on approximately 1.5 acres of the 4.6-acre project site (see Plate IS-3 in Chapter 2, "Project Description"). The remaining approximately 3.1 acres of the project site would not be developed as part of the project. A single-family residence formerly existed in the north-central portion of the project site but was demolished in the early 2000s. A remnant seasonal pond (former swimming pool) is present in the south-central portion of the project site. The site is currently undeveloped and consists of nonnative annual grasses, vernal pool habitat, and a small grouping of tall trees (oaks, gums, and eucalyptus) in the northcentral portion of the site. The topography at the project site is nearly flat; elevations range from 68 to 70 feet above mean sea level.

Existing development is present along the north side of the project site within the Bradshaw Vineyard Village residential development and the adjacent Ted Klein Park. Immediately east and

south are large agricultural/rural residential parcels. Land west of the project site, west of Bradshaw Road, is undeveloped.

Public views of the project site are available primarily for motorists traveling north and south on Bradshaw Road (Plate IS-5). Similar public views are also available in southeast views for motorists on the west side of the Vintage Park Drive/Bradshaw Road intersection.

Plate IS-6: Proposed Development Area from Bradshaw Road, Looking Northeast

Source: AECOM 2024

Vacant land at the project site within the proposed development area, which has been disced to reduce weed growth, fills the foreground view. A small group of tall trees on the project site is visible in the northcentral portion of the project site in the middle ground view. Residences, fencing, and landscaping in the Bradshaw Vineyard Village development to the north are also visible in the middle ground. The background view includes chain link fencing along the project site's eastern boundary, and a line of trees east of the project site along Laguna Creek.

Goldenleaf Way and Cider Way, within the Bradshaw Vineyard Village development to the north, both dead-end at the project site's northern boundary. Cider Way is only 100 feet long in total and is used by residents for parking. Goldenleaf Way is a north-south local road that extends 100 feet south of Vintage Park Drive, and this portion of the road is also used by residents for parking. Views of the proposed project fire station development area and the proposed rear emergency access driveway for local motorists traveling on Vintage Park Drive within the Bradshaw Vineyard

Village development are blocked by the intervening residences and a proposed six-feet high concrete masonry wall at the end of Goldenleaf Way. Motorist's views looking south down Cider Way would consist of a 6-foot-high security fence where the project's rear access road meets the southern end of Cider Way and associated landscaping to the south, aside from an approximately 30-foot-wide corridor as motorists drive past Goldenleaf Way and Cider Way. Views of the proposed project development area at the project site for recreationists within the approximately 1.3-acre Ted Klein Park are blocked by intervening residences and landscaping. The one single-family house located on the parcel adjacent south of the project site would have views of the south side of the fire station building approximately 300 feet away that would be partially obstructed by a 7-foot-high concrete masonry wall and several project landscape screening trees.

LIGHT AND GLARE

The project site is in the Vineyard community. The level of existing nighttime lighting in the project area is moderate. There is limited nighttime security lighting from the Bradshaw Vineyard Village residential development to the north, and from scattered rural residences on large parcels to the east and south, along with vehicle headlights along Bradshaw Road. Skyglow effects are already present from existing development in the project area, which is urbanizing.

SCENIC HIGHWAYS

The project site is not within the viewshed of any designated or eligible scenic highway. The closest County-designated scenic roadway is Scott Road, approximately 13 miles to the northeast (Sacramento County 2022a). The closest State-designated scenic highway is State Route 160, approximately 9 miles to the west (California Department of Transportation [Caltrans] 2019).

IMPACT DISCUSSION

a. *Would the project have a substantial adverse effect on a scenic vista?*

A scenic vista is a public viewpoint that provides expansive views of highly valued scenery or landscapes. The project consists of flat, undeveloped land covered with forbs, and a small group of trees, and is surrounded by flat land covered with urban development including 4-lane roadways, and rural agricultural/residential development. The project site does not contain any unique geologic features, major waterfalls, unique rock outcroppings, gorges, mountains, or other features that could be regarded as outstanding scenic features. Thus, there would be **No Impact**.

b. *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project site is not within the viewshed of any designated or eligible scenic highway. The closest County scenic roadway is Scott Road, approximately 13 miles to the northeast (Sacramento County 2022a). The closest State-designated scenic highway is State Route 160, approximately 9 miles to the west (Caltrans 2019). Thus, there would be **No Impact**.

c. *Would the project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

DEGRADATION OF VISUAL CHARACTER OR QUALITY

PROPOSED DESIGN ELEMENTS

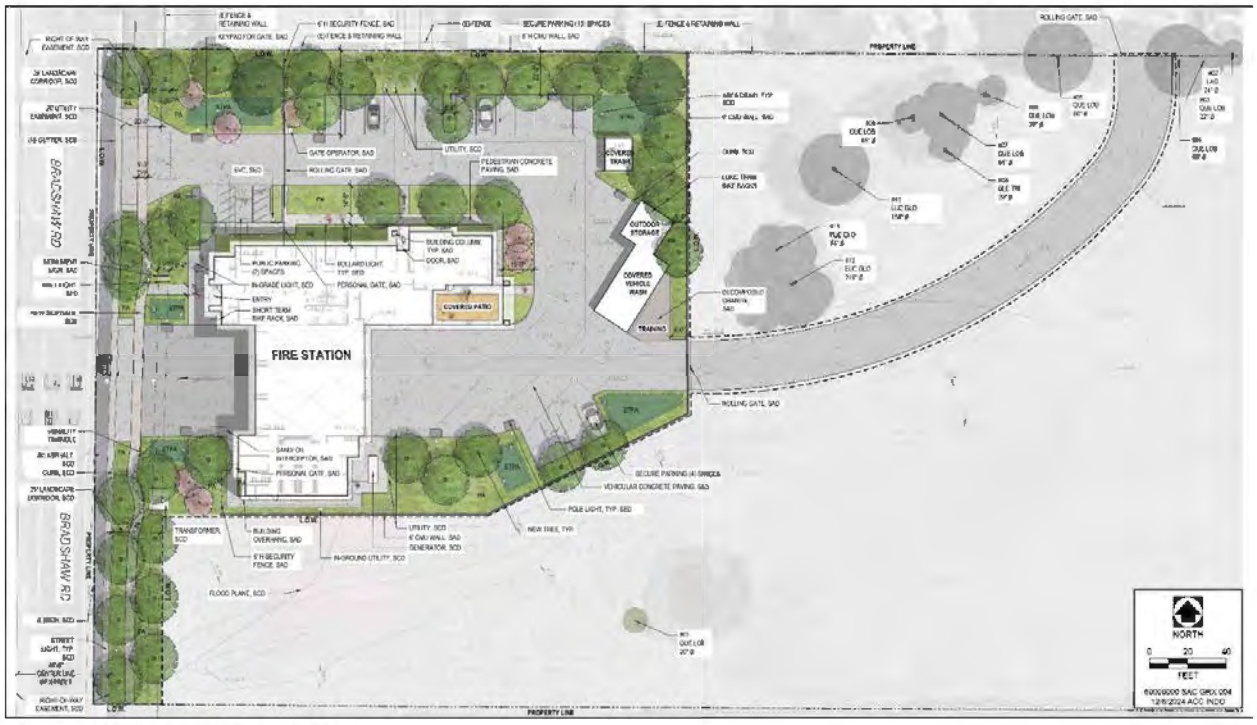
The project applicant has engaged the services of an architectural design firm to provide conceptual renderings showing exterior elevations of the proposed fire station at the project site. A conceptual rendering illustrating the visual character as viewed from Bradshaw Road of the front of the proposed fire station is shown in Plate IS-6. The proposed building would encompass approximately 10,300 square feet, with a maximum height of approximately 32 feet at the roof line over the apparatus bay (shown in Plate IS-6). The building's proposed architectural finishes would include stucco, brick veneer, aluminum window and door trim, and a colored metal roof with a non-glare coating. The finish colors have been designed to blend in with the existing natural color palette. The architectural design, exterior lighting, and ornamental black metal fencing have been designed to provide a modern look and feel.

Plate IS-7: Proposed Fire Station, Bradshaw Road Frontage

Source: Coar Design Group 2024a

A conceptual landscape plan for the proposed fire station is shown in Plate IS-7. The proposed project would include 6-foot-high walls (composed of concrete masonry units) along the north, east, and south boundaries of the proposed development area within the project site. A 7-foot-wide landscape planter area, consisting of trees, shrubs, and grass, would be provided within the proposed development area along the boundary walls and adjacent to the north side of the proposed building. Trees would be spaced 30-feet-on-center at a distance of 5 to 10 feet from the development area boundary, in combination with other plant material, to provide a dense visual screen at maturity. The western frontage of the project site (along Bradshaw Road) would include a 25-foot-wide landscape corridor as required by the Vineyard Springs Comprehensive Plan (Sacramento County 2000). The landscape corridor along Bradshaw Road would include a sidewalk, large-canopy street trees to provide shade, and other vegetation, along with street lighting, and a 6-foot-tall ornamental metal fence (required for security). Trees along the Bradshaw

Plate IS-8: Conceptual Landscape Plan



Source: Coar Design Group 2024b

Road corridor have been located and grouped to allow the required clearance for the sight triangle on the fire station driveway onto Bradshaw Road and visibility for the monument sign from Bradshaw Road.

A gated emergency vehicle access driveway would be provided from the back of the fire station to a new connection with Cider Way in the Bradshaw Vineyard Village development to the north. As shown on Plate IS-7, the existing trees on the project site, which are in the vicinity of the proposed emergency access driveway, would be preserved.

Visual Character from Public Viewpoints

As shown on Plate IS-5 and Plate IS-6, development of the proposed project would result in a change in the visual character of the project site from a flat, undeveloped field covered with forbs to a modern urban building with landscape trees, shrubs, and ornamental fencing. For motorists traveling north and south on Bradshaw Road, and motorists at the east end of Vintage Park Drive on the west side of Bradshaw Road, the proposed fire station and associated landscaping would fill the foreground views. As described in detail above and shown in Plate IS-6, the architectural design, exterior lighting, and ornamental metal fencing would have elements that are visually similar to other construction within the Vineyard area. Furthermore, the proposed landscape corridor with shade trees and sidewalk along the site's Bradshaw Road frontage would provide shade and pedestrian connectivity with future development in the Vineyard Springs Comprehensive Plan area. The proposed project would result in an improvement to the existing visual quality for motorists on the adjacent arterial roadways and for bus passengers at the Bradshaw Road/Vintage Park Drive bus stop across the street. The proposed project would improve the existing visual quality for motorists on the adjacent arterial roadways and for bus passengers at the Bradshaw Road/Vintage Park Drive bus stop across the street.

With regard to recreationists at the 1.3-acre Ted Klein neighborhood park, the proposed fire station and new emergency vehicle access driveway to Cider Way would not be visible from the park due to the angle of the park (to the northeast) in relationship to the proposed development area. Views of the fire station from the park would be blocked by existing residences and landscaping along the south side of Vintage Park Drive in the adjacent Bradshaw Vineyard Village development, along with an existing group of on-site oak and eucalyptus trees that would be preserved. Thus, there would be no change to the existing visual character or quality of public views from Ted Klein Park.

Although there is an approximately 30-foot-wide corridor affording a view of a narrow portion of the northern side of the project site from Cider Way within the Bradshaw Vineyard Village development, there is currently no view of the proposed development area from Cider Way; views to the southwest are blocked by a group of tall oak and eucalyptus trees on the project site, and by intervening residences and landscaping along the south side of Vintage Park Drive. Furthermore, Cider Way is only 100 feet long and is a dead-end; it is used by residents for parking. Views of the project site directly to the south from Vintage Park Drive at Cider Way would still include the existing group of on-site trees (which would be preserved except for one 18" diameter at breast height (DBH) valley oak tree at the end of Cider Way), but the existing white wood fencing and signage indicating a dead-end roadway would be removed. On-street parking on Cider Way would be prohibited in the future to permit safe passage of fire apparatus. South-facing views towards Cider Way would include a new barred rolling gate and a portion of the new paved emergency vehicle access driveway (including security fencing) curving to the southwest, leading to the back of the fire station. Views of the rolling security gate and the paved driveway would represent a minor change in the viewshed from Vintage Park Drive looking towards Cider Way and would be consistent with existing development in the Bradshaw Vineyard Village. Removal of the existing white wood fencing, signage, and vehicles parked on Cider Way, and the addition of the proposed ornamental fencing and paved access driveway on the project site, would result in an improvement to the existing visual character and quality of public views from Vintage Park Drive looking south along Cider Way.

There is also an approximately 30-foot-wide corridor affording a view of a narrow portion of the proposed development area for motorists traveling south on Goldenleaf Way and motorists traveling east/west on Vintage Park Drive within the Bradshaw Vineyard Village development. South of Vintage Park Drive, Goldenleaf Way is only 100 feet long and is a dead-end; it is used by residents for parking. On-street parking for residents would continue to be permitted on Goldenleaf Way, which would remain a dead-end roadway that ends at the project site's northern boundary. With development of the proposed project, views to the south of vacant grassland from this 30-foot-wide corridor would be blocked by the new concrete masonry wall and landscape trees along the south side of the wall on the project site. This would represent a change to the existing visual character; however, the masonry wall and landscaping would be consistent with existing urban development in the Vineyard area and with the Sacramento Countywide Design Standards (Sacramento County 2022b), and given that the visible area is only a 30-foot-wide corridor and does not provide a scenic view, this change would result in a less-than-significant impact.

Finally, although CEQA does not require an analysis of visual impacts from private viewpoints (*Mira Mar Mobile Community v. City of Oceanside*, 119 Cal.App.4th 477 [Cal. Ct. App. 2004]), the following information related to views from the existing residential development to the north and south is provided for informational purposes. The northern property boundary parallels the backyards of single-family residences along the south side of Vintage Park Drive in the Bradshaw Vineyard Village development. These residences are separated from the proposed development

area by an approximately 6-foot-tall solid fence (see Plate IS-5) which blocks all views of the project site from the ground floor and the yards of the residences. Furthermore, tall landscape trees, shrubs, and hedges within these backyards, along with the proposed new on-site masonry wall and on-site landscape trees, would continue to block all views of the proposed fire station except from the second story of the residences. Views from second story windows of these residences would be partially blocked when the on-site landscape trees are fully mature. Views of the proposed fire station looking north from the one existing rural residence south of the project site would be partially screened when the on-site landscape trees are fully mature.

CONCLUSION

The eastern half of the project site would not be developed, so the current visual character in that portion would not change. The visual character of the western half of the project site would change from vacant land covered with forbs to a modern commercial building (fire station) with extensive landscaping and ornamental fencing. The visual character and quality of the proposed fire station would be consistent with current industry standard architectural and landscape design principles (see Plate IS-6) and the project would be required to demonstrate compliance with the Sacramento Countywide Design Standards (Sacramento County 2022b). Furthermore, from a visual perspective the proposed fire station would be consistent with similar types of existing development (i.e., residential and commercial) in the Vineyard area and would result in an improvement in visual quality as compared to the existing conditions (compare Plate IS-5 and Plate IS-6). Therefore, implementation of the project would not result in a substantial degradation of the visual character or quality of the site or the surrounding area, and this impact is considered **Less than Significant**.

CONFLICTS WITH REGULATIONS GOVERNING SCENIC QUALITY

As described above, the project site is in the Vineyard area in an unincorporated area of Sacramento County – an area planned for development. The project site is within an urbanized area as designated by the U.S. Census Bureau (2025). Scenic quality in the project area is regulated through compliance with the County General Plan (Sacramento County 2022a), County Zoning Code (Sacramento County 2025), County Design Review process and Countywide Design Standards (Sacramento County 2022b), and the Vineyard Springs Comprehensive Plan (Sacramento County 2000), which are discussed briefly below.

The Sacramento County General Plan Land Use Element (Sacramento County 2022a) contains policies related to land use that are intended to help ensure visual quality in urban design and prevent adverse environmental impacts. For example, Policy LU-18 encourages development that complements the aesthetic style and character of existing development nearby to help build a cohesive identity for the area. Policy LU-19 requires buffering between different types of land uses. Policy LU-20 suggests that planning processes provide for distinct and identifying physical elements, which may include gateways, signage, public art, common site or street layout, shared design qualities of buildings or infrastructure, or prominent landmarks or destinations. Policy LU-94 states that the County's design review process shall be used to ensure that new commercial and residential development projects are designed to be compatible with existing neighborhoods and improve quality of life. Policy LU-102 requires that the structural design, aesthetics, and site layout of new developments are compatible and interconnected with existing development. The project has been designed to be consistent with General Plan policies related to aesthetics.

The Sacramento County Zoning Code (Sacramento County 2025) sets forth standards for all types of development including commercial related to a variety of features such as allowable uses,

lot sizes, setbacks, building heights, landscaping, lighting, and signage. The project has been designed to be consistent with the Zoning Code requirements, which must have been integrated into the project design as required by the Sacramento Countywide Design Guidelines, as discussed further below.

The Sacramento Countywide Design Guidelines are an implementing tool of the County's 2030 General Plan and also reflect County Zoning Code requirements. The project has been designed to be consistent with the Sacramento Countywide Design Guidelines for Office, Business Park, Institutional, and Industrial Development (Sacramento County 2022b). For example, the site connections, building alignments, streetscape and landscape design, roadway and parking lot design, architectural context, and signage reflect the needs of the tenant (Sacramento Metropolitan Fire Station) and the quality and design of the district as shown in Plate IS-6. The new fire station would have a 90-foot separation from the neighboring Bradshaw Vineyard Village development and would have a 50-foot setback from Bradshaw Road. The building lobby entrance would face Bradshaw Road. Landscaping for the fire station would include drought-tolerant, California native, and plants adapted to site conditions. Public parking would include ADA parking and an accessible route to the new fire station entrance. Secured parking would be provided for fire district employees, and employees and would include space for apparatus vehicle maneuvering. A new sidewalk and street trees would be installed along the project site's Bradshaw Road frontage as part of the project. The on-site landscaping and shaded pedestrian corridor along Bradshaw Road would increase the walkability, pedestrian safety, access, and health and comfort, and would reduce heat gain. The use of drought-tolerant plants would reduce water consumption. The project would contribute to the design objectives for the project area (as required by the Sacramento Countywide Design Guidelines, General Plan, and Zoning Code), including building form and massing, architectural design and features, materials and colors, lighting, screening walls and security fences, and service areas, as follows. The proposed fire station would be a wood framed building with brick and stucco wall finishes and 3:12 pitched metal roofing. The exterior finishes and color palate (see Plate IS-6) would be complementary to the existing neighboring buildings including gray roofing, off-beige stucco, and rustic white whitewashed brick veneer. From Bradshaw Road, the building design includes a 24-foot-tall 3-bay-wide apparatus parking garage, single-story living quarters, and lobby entrance. All exterior walls would have matching finishes. The development area would include a metal security roll gate matching the security fencing. Egress and parking lighting would be provided in an architectural style complementary to the building.

The project site is situated within the area encompassed by the Vineyard Springs Comprehensive Plan (Sacramento County 2000), which requires a landscape corridor with sidewalks along major roadways, including the Bradshaw Road frontage along the project site. As shown in Plate IS-7 and described above, the project includes a landscape corridor with sidewalk along the Bradshaw Road frontage.

Prior to issuance of the requested permit, all aspects of the project would be subject to the County's Design Review (County Zoning Code Section 6.3) process to ensure that quality design and attractive exterior aesthetics are maintained throughout the site. For discretionary projects, the Design Review Advisory Committee conducts design reviews and makes findings and recommendations to the approving authority regarding compliance with the Countywide Design Guidelines. The appropriate County approving authority is required to make one of the following findings (Zoning Code Section 6.3.2.F):

1. The project substantially complies with the Countywide Design Guidelines;

2. The project would substantially comply with the Countywide Design Guidelines if modified with recommended modifications; or

3. The project does not comply with the Countywide Design Guidelines and should, as consequence, not be approved.

CONCLUSION

The project would be consistent with the relevant County General Plan policies, zoning, and the Vineyard Springs Comprehensive Plan as related to visual quality, and the project will be required by the County to be consistent with the Countywide Design Guidelines. The proposed fire station has been designed to meet the standards and regulations governing scenic quality discussed in detail above. All facets of the project would undergo the County's Design Review Process to ensure quality design and visually appealing aesthetics for viewers both on the project site and from the surrounding area. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality, and this impact would be **Less than Significant**.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

A moderate amount of nighttime lighting is present in the project vicinity in the form of security lighting at adjacent residences and vehicle headlights along Bradshaw Road. Furthermore, skyglow effects are already present from existing development in the project area, which is urbanizing. Nighttime lighting during project-related construction would not occur. During project operation, the fire station would be staffed and operated 24 hours per day, 7 days per week. The project would include nighttime lighting for security purposes and for operation of firefighting apparatus during emergency events that occur at night. Operational lights with higher lumens (which would be brighter) would be concentrated in the back of the fire station around the equipment bay. All exterior lighting fixtures would be shielded to direct the light downward and prevent light spillover. Furthermore, the nighttime lighting at the project site would be shielded from the surrounding properties and motorists on Bradshaw Road by the proposed landscaping, which would include trees and shrubs to provide dense screening. A photometric analysis for the project lighting has been performed using methods and recommendations of the Illuminating Engineering Society of North America (O'Mahony & Myer 2024). The photometric analysis results show that appropriate shielding would be provided for all proposed lighting so that light spillover and glare effects for adjacent residents and motorists would not occur. Street lighting at the project site along the Bradshaw Road landscape corridor would be implemented in accordance with County Improvement Standards, which require that lighting be shielded and directed downward. Therefore, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and this impact would be **Less than Significant**.

ENVIRONMENTAL MITIGATION MEASURES

None required

II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Agriculture and Forestry Resources Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Introduce incompatible uses in the vicinity of existing agricultural uses?	☐	☐	☐	☒
d. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
e. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
f. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is classified by the California Department of Conservation's Farmland Mapping and Monitoring Program as "Grazing Land" (DOC 2020). The project site soil type is rated under the Storie Index as Grade 4 – poor soil productivity (U.S. Natural Resources Conservation Service 2024).

IMPACT DISCUSSION

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site is classified by the California Department of Conservation's Farmland Mapping and Monitoring Program as "Grazing Land" (DOC 2020). Thus, the project site does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, the project site soil type is rated under the Storie Index as Grade 4 – poor soil productivity (U.S. Natural Resources Conservation Service 2024). Therefore, Important Farmland (as defined under CEQA) would not be converted to non-agricultural use, and there would be **No Impact**.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is not enrolled under a Williamson Act contract (Sacramento County 2024). The site is zoned Agricultural Residential (AR-10). The County's Zoning Code allows fire stations within this zoning district with an approved conditional use permit, which is the subject of this IS/MND. Thus, there would be **No Impact**.

c. Would the project introduce incompatible uses in the vicinity of existing agricultural uses?

Although parcels immediately east and south of the project site are large agricultural/rural residential parcels zoned as AR-10, they are not currently being used for agricultural use. The County's Zoning Code allows fire stations within the AR-10 zoning district with an approved conditional use permit. No project operations would be incompatible to potential agricultural uses in the vicinity. Thus, there would be No Impact.

d. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Government Code Section 51104(g))?

The project site is not zoned as forest land, timberland, or timberland zoned for Timberland Production. Thus, there would be **No Impact**

e. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The project site consists of flat grassland in the urbanizing Vineyard community; no forest land is present. Therefore, the project would not result in the loss of forest land or the conversion of forest land to non-forest use, and there would be **No Impact**.

f. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The project site is within the Vineyard Springs Comprehensive Plan Area, and the area along Bradshaw Road (including the project site) is planned for urban development. Residential development is present immediately adjacent to the project site to the north. The site is zoned Agricultural Residential (AR-10) and is designated for residential and floodway/recreation land

uses in the Vineyard Springs Comprehensive Plan. The County's Zoning Code allows fire stations within the AR-10 zoning district with an approved conditional use permit. Finally, the project site is not classified as Important Farmland by the DOC and does not contain forest land. Thus, the project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and there would be **No Impact**.

Environmental Mitigation Measures

None required.

III. Airports

Airports Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?	☐	☐	☐	☒
b Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?	☐	☐	☐	☒
c Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?	☐	☐	☐	☒
d Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

Environmental Setting

Mather Airport, owned and operated by Sacramento County as a cargo and general aviation airport, is the nearest airport to the project site, approximately 5.5 miles to the north. Based on a review of the Mather Airport Land Use Compatibility Plan (ESA 2022), the project site is situated within the southwest corner of the Airport Influence Area.

Impact Discussion

a. Would the project result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?

The project site is not situated within two miles of a public or public-use airport. The nearest airport, Mather Airport, is approximately 5.5 miles north of the project site. Based on a review of the Mather Airport Land Use Compatibility Plan (ESA 2022), the project site is situated within the southwest corner of the Airport Influence Area. The project site is outside of the Federal Aviation Administration's (FAA) Part 77 area of airspace height restrictions and is outside of the FAA's recommended 10,000-foot separation area for hazardous wildlife attractants. Because the

proposed project does not include residential development, aircraft overflight notification is not required. Furthermore, the proposed project would not include the construction of tall buildings or other safety hazards such as night-time flashing lights that could be mistaken for airport lighting. Therefore, the proposed project would not result in a safety hazard for aircraft or for people residing or working in the project area, and there would be **No Impact**.

b. Would the project expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?

Due to the project's distance from the nearest airport, it would not expose people working or residing in the project area to aircraft noise levels in excess of applicable standards. The fire station does not include a helicopter pad. Therefore, there would be **No Impact**.

c. Would the project result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?

The nearest airport, Mather Airport, is approximately 5.5 miles north of the project site. Based on a review of the Mather Airport Land Use Compatibility Plan (ESA 2022), the project site is situated within the southwest corner of the Airport Influence Area. The project site is outside of the Federal Aviation Administration's (FAA) Part 77 area of airspace height restrictions and is outside of the FAA's recommended 10,000-foot separation area for hazardous wildlife attractants. Because the proposed project does not include residential development, aircraft overflight notification is not required. Furthermore, the proposed project would not include the construction of tall buildings or other safety hazards such as night-time flashing lights that could be mistaken for airport lighting. Therefore, the proposed project would not result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft safety hazard for aircraft or for people residing or working in the project area, and there would be **No Impact**.

d. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

As noted above, the project's distance and lack of tall structures or nighttime flashing lights would not result in a change in air traffic patterns that results in substantial safety risks. Thus, there would be **No Impact**.

Environmental Mitigation Measures

None required.

IV. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Air Quality Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed project site is in the Sacramento Valley Air Basin (SVAB). Air quality in the Sacramento County portion of the SVAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the Sacramento Metropolitan Air Quality Management District (SMAQMD) at the regional level.

CLIMATE AND METEOROLOGY

The climate of the SVAB is characterized by hot, dry summers and mild, rainy winters. Throughout the year, the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north. The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the SVAB when certain meteorological conditions are right, and a temperature inversion (areas of warm air overlying areas of cooler air) exists. Air stagnation in the autumn and early winter occurs when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog, and pollutants near the ground. The ozone season (May through October) in the SVAB is characterized by stagnant morning air or light winds with the breeze arriving in the afternoon out of the southwest from the San Francisco Bay. Usually, the evening breeze transports the airborne pollutants to the north out of the SVAB. During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. This phenomenon’s effect exacerbates the pollution levels in the area and increases the likelihood of violating federal and state air quality standards (SMAQMD 2021a).

CRITERIA AIR POLLUTANTS

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the USEPA and CARB as being of concern both on a nationwide and statewide level: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, and particulate matter (PM), which is subdivided into two classes based on particle size—PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$). Because the air quality standards for these air pollutants are regulated using human and environment health-based criteria, they are commonly referred to as "criteria air pollutants." Common sources and health effects of the criteria air pollutants are summarized in Table IS-1.

Health-based air quality standards have been established for criteria air pollutants by USEPA at the federal level and by CARB at the state level. These standards are referred to as the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQS), respectively. The NAAQS and CAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution.

Both USEPA and CARB designate areas of California as "attainment," "nonattainment," "maintenance," or "unclassified" for the various pollutant standards according to the federal Clean Air Act and the California Clean Air Act, respectively. Within the SVAB, SMAQMD is responsible for ensuring that air quality standards are not violated. With respect to regional air quality, Sacramento County is designated as nonattainment for the 8-hour ozone and 24-hour $PM_{2.5}$ NAAQS. Sacramento County is designated as attainment or unclassified for all other criteria air pollutant NAAQS. Sacramento County is currently in attainment for the CO, NO_2, SO_2, $PM_{2.5}$, and lead CAAQS; and in nonattainment for ozone and PM_{10} (SMAQMD 2024).

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a set of airborne pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. The health effects associated with TACs are diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects, such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

Table IS-1: Summary of Common Sources and Human Health Effects of Criteria Air Pollutants

Pollutant	Sources	Human Health Effects
Ozone (O_3)	Atmospheric reaction of reactive organic gases (ROGs) and nitrogen oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as on-road and non-road mobile sources, wood-burning stoves, incinerators, industrial sources, and wildfires.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust, stationary combustion, atmospheric reactions.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Inhalable Particulate Matter (PM_{10})	Stationary combustion of solid fuels; motor vehicles; fugitive dust from construction activities; industrial processes; forest fires	Respiratory symptoms; aggravation of respiratory diseases
Fine Particulate Matter ($PM_{2.5}$)	Stationary combustion of solid fuels; motor vehicles; fugitive dust from construction activities; industrial processes; forest fires	Respiratory symptoms; aggravation of respiratory and cardiovascular diseases; weakened immune system; cancer
Sulfur Dioxide (SO_2)	Combination of sulfur-containing fossil fuels; smelting of sulfur-bearing metal ore; industrial processes	Aggravation of respiratory diseases; reduced lung function
Lead	Contaminated soil; metal processing waste incinerators	Behavioral and hearing disabilities in children; nervous system impairment; decreased kidney function; cardiovascular issues; reproductive problems

Source: CARB 2024a, 2024b; USEPA 2024a, 2024b, 2024c, 2024d, 2024e; WHO 2024

Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators, among others. On-road motor vehicles and off-road sources, such as construction equipment and trains, are also common sources of TACs. According to the California Almanac of Emissions and Air Quality (CARB 2013), most of the estimated health risk from TACs can be attributed to relatively few compounds—the most important being diesel particulate matter (DPM). It is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2024c). DPM differs from other TACs because it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on

engine type, operating conditions, fuel composition, type of lubricating oil, and presence or absence of an emissions control system. Emissions of DPM are forecasted to decline; it is estimated that emissions of DPM in 2035 will be less than half those in 2010, further reducing statewide cancer risk and non-cancer health effects (CARB 2013). Other TACs for which data are available that currently pose the greatest ambient risk in California are benzene, formaldehyde, hexavalent chromium, 1,3-butadiene, and acetaldehyde.

Another potential concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. When rock containing asbestos is broken or crushed, such as through construction-related ground disturbance or rock quarrying activities where NOA is present, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. NOA is typically found in ultramafic rock, including serpentine rock, and near fault zones. The proposed project site is not in an area identified with the potential for NOA.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of where sensitive receptors may be located include residences, schools, hospitals, and daycare centers. CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (OEHHA 2015).

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children and infants are considered more susceptible to health effects of air pollution due to their immature immune systems, developing organs, and higher breathing rates. As such, schools are also considered sensitive receptor locations, as children are present for extended durations and engage in regular outdoor activities.

The closest sensitive receptor locations to the proposed project site are single-family dwellings to the north adjacent to the proposed project site and limit of project development area, approximately 25 feet from the proposed project parking area. Additionally, there are rural residential dwellings units to the south and east of the proposed project site. The closest school to the proposed project site is the Robert J. Fite Elementary School, approximately 1,700 feet to the northwest, and the closest daycare center is located approximately 1,300 feet to the northeast. Note that the proposed project does not propose development in the southern and eastern portions of the proposed project site.

REGULATORY SETTING

Air quality plans describe air pollution control strategies to be implemented to bring an area that does not attain the NAAQS or CAAQS into compliance with those standards, or to maintain existing compliance with those standards, pursuant to the requirements of the federal Clean Air Act and California Clean Air Act. SMAQMD has adopted air quality plans pursuant to requirements

under USEPA and CARB regulations for the attainment and maintenance of federal and state ambient air quality standards (i.e., the NAAQS and CAAQS). The goals of the air quality plans are to reduce criteria air pollutant emissions for which the SVAB is designated as nonattainment in order to achieve NAAQS and CAAQS by the earliest practicable date and to maintain existing compliance with the NAAQS and CAAQS. The 2017 and 2023 regional air quality management plans represent the most recent plans developed to describe and demonstrate how the Sacramento Federal Ozone Nonattainment Area (SFNA) is meeting requirements for ozone under the federal Clean Air Act in demonstrating reasonable further progress and attainment of the NAAQS for the 2008 8-hour ozone standard and 2015 8-hour ozone standard, respectively (SMAQMD 2017; SMAQMD 2023). For particulate matter, SMAQMD developed the $PM_{2.5}$ Maintenance Plan and Redesignation Request (SMAQMD 2013) to address how the region attained and would continue to attain the 24-hour $PM_{2.5}$ NAAQS, and the Second 10-Year PM_{10} Maintenance Plan for Sacramento County to demonstrate maintenance of the PM_{10} NAAQS through 2033 (SMAQMD 2021b). In compliance with the California Clean Air Act, SMAQMD assesses progress made towards attaining the ozone and PM_{10} CAAQS every through years through its California Clean Air Act Triennial Plan, which was most recently updated in 2015 (SMAQMD 2015a). Annual Progress Reports are also submitted to summarize SMAQMD's progress in meeting the schedules for developing, adopting, and implementing the air pollution control measures contained in the Triennial Report.

As documented in the SMAQMD Guide to Air Quality Assessment in Sacramento (CEQA Guide) (SMAQMD 2021a), the recommended construction and operational mass emissions thresholds for ozone precursors correlate with the NOx and ROG reductions from heavy-duty vehicles and land use project emission reduction requirements committed to in the ozone attainment plans. Similarly, the construction and operational mass emissions thresholds for PM correlate with the SMAQMD's permitting offset trigger levels, which prevent deterioration of ambient air quality and ensure projects do not worsen the region's attainment status for PM (SMAQMD 2015b). Therefore, projects with emissions less than the recommended thresholds of significance for criteria air pollutants would not conflict with or obstruct implementation of the applicable air quality plans for the attainment and maintenance of ozone and PM standards.

Table IS-2 presents the most current significance thresholds established by SMAQMD, including maximum daily and annual thresholds for short-term construction and long-term operational emissions. As noted above, a project with emission rates below these thresholds is generally considered to have a less-than-significant effect on air quality (SMAQMD 2021a).

To allow for the use of non-zero PM_{10} and $PM_{2.5}$ thresholds of significance, SMAQMD recommends lead agencies require implementation of a set of Basic Construction Emissions Control Practices that serve as construction best management practices (BMPs) and operational BMPs and Best Available Control Technology (BACT), as applicable, for all land use development projects. The following BMPs and BACT are as currently detailed in the SMAQMD CEQA Guide (SMAQMD 2021a):

Table IS-2: SMAQMD Criteria Air Pollutant Thresholds of Significance

Project Phase	Pollutant	Daily Threshold (pounds per day)	Annual Threshold (tons per year)
Construction	ROG (VOC) (ozone precursor)	None	None
Construction	NO_X	85	None
Construction	PM_{10}	80[1]	14.6[1]
Construction	$PM_{2.5}$	82[1]	15[1]
Operation	ROG (VOC) (ozone precursor)	65	None
Operation	NO_X	65	None
Operation	PM_{10}	80[1]	14.6[1]
Operation	$PM_{2.5}$	82[1]	15[1]

Source: SMAQMD 2020a

NO_X = nitrogen oxides; PM_{10} = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less ROG = reactive organic gases; VOC = volatile organic compound

[1] PM thresholds are zero (0) unless all feasible Best Available Control Practices/Best Management Practices are applied.

BASIC CONSTRUCTION EMISSIONS CONTROL PRACTICES

- Control of fugitive dust is required by District Rule 403 and enforced by District staff.
- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 mph;
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to 5 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site;
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

OPERATIONAL BEST MANAGEMENT PRACTICES

1. Compliance with SMAQMD rules that control operational PM and NO_X emissions.

2. Compliance with mandatory measures in the California Building Energy Efficiency Standards (Title 24, Part 6) that pertain to efficient use of energy at a residential or non-residential land use.
3. Compliance with mandatory measures in the California Green Building Code (Title 24, Part 11).
4. Compliance with anti-idling regulations for diesel-powered commercial motor vehicles (greater than 10,000 gross vehicular weight rating) as applicable to project-specific operations.
5. Compliance with BACT requirements for the emergency generator as determined through the stationary source permitting process.

IMPACT DISCUSSION

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

As shown in Table IS-3 and Table IS-4 of impact discussion b) below, the proposed project's construction-related emissions of NOx, PM_{10}, and $PM_{2.5}$, and operational emissions of ROG and NOx would not exceed SMAQMD thresholds. However, because construction and operation of the proposed project would generate PM emissions, implementation of construction and operational BMPs/BACT, as listed above, would be required in order to apply SMAQMD's non-zero thresholds of significance for PM. SMAQMD recommends lead agencies implement these emissions control practices as Conditions of Approval or include in a mitigation measure (SMAQMD 2021a).

Without incorporation of applicable SMAQMD construction and operational BMPs/BACT for PM emissions, the proposed project's construction and operational activities could potentially conflict with or obstruct implementation of the applicable air quality plans and the impact would be **Potentially Significant**. Mitigation Measures AQ-1 and AQ-2 would require implementation of the SMAQMD's recommended construction and operational BMPs, respectively.

SIGNIFICANCE AFTER MITIGATION

With the implementation of Mitigation Measures AQ-1 and AQ-2, the proposed project would implement applicable BACT and BMPs for the purposes of minimizing PM and would thereby not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be **Less than Significant with Mitigation**.

b. Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

By its very nature, air pollution is largely a cumulative impact. The nonattainment statuses of regional pollutants are a result of past and present development within the region. A single project's emissions may be individually limited but could be cumulatively considerable when considered in combination with past, present, and future emissions sources within the air basin. As described above, the Sacramento region is in nonattainment for ozone (as addressed through the control of ozone precursors NOx and ROG) and particulate matter ($PM_{2.5}$ and PM_{10}). SMAQMD has established project- level construction and operational emissions thresholds of

significance for ROG (only for operations), NOx, PM_{10}, and $PM_{2.5}$. If a project's emissions are below the SMAQMD thresholds of significance, the project would not be considered to result in a cumulatively considerable contribution to a significant impact on regional air quality (SMAQMD 2021a). The proposed project's emissions of these criteria air pollutants and precursors during construction and operations are evaluated below.

CONSTRUCTION

The proposed project would generate criteria air pollutants and precursors in the short-term during construction. The proposed project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.28. Project-specific construction parameters (e.g., construction schedule and equipment, project site area, total acres disturbed, quantity of import/export material, building square footage, and paved area) were used as inputs to CalEEMod. Where project-specific information was not available, CalEEMod default parameters were used. Detailed CalEEMod outputs are provided in Appendix A. The results of the construction modeling are shown in Table IS-3. The data are presented as the maximum anticipated daily and annual emissions for comparison with the SMAQMD thresholds. The modeling assumes implementation of the fugitive dust control measures which are quantifiable in CalEEMod, specifically watering exposed surfaces twice daily.

Table IS-3: Daily and Annual Construction-Related Emissions of Criteria Air Pollutants and Precursors

Construction Year	ROG (lbs/day)	NOx (lbs/day)	PM_{10}[1] (lbs/day)	$PM_{2.5}$[1] (lbs/day)	PM_{10}[1] (tons/year)	$PM_{2.5}$[1] (tons/year)
2025	1.82	17.29	1.45	0.72	0.08	0.05
2026	2.91	24.28	1.54	0.96	0.15	0.09
2027	1.23	5.11	0.51	0.20	0.03	0.01
SMAQMD Significance Threshold	-	85	80	82	14.6	15
Emissions Exceed SMAQMD Threshold?	-	No	No	No	No	No

Notes: lbs = pounds; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District; - = not applicable

[1] PM emissions include implementation of fugitive dust BMPs consistent with SMAQMD Rule 403 requirements (watering 2x daily).

Modeled by AECOM in 2024. See Appendix A for additional details.

As shown in Table IS-3, emissions of criteria air pollutants and precursors would not exceed the SMAQMD significance thresholds for construction. Nevertheless, as noted above under impact discussion a), SMAQMD recommends implementation of the above listed Basic Construction Emissions Control Practices, considered by SMAQMD to be feasible for controlling fugitive dust from a construction site. The practices also serve as BMPs, allowing the use of the non-zero PM significance thresholds. SMAQMD recommends lead agencies implement these emissions control practices as Conditions of Approval or include in a mitigation measure (SMAQMD 2021a). Without implementation of the Basic Construction Emissions Control Practices, construction emissions of PM_{10} and $PM_{2.5}$ would be potentially significant. Mitigation Measure AQ-1 would require implementation of the SMAQMD's recommended BMPs for construction, thus reducing project impacts to **Less than Significant with Mitigation**.

OPERATIONS

Once construction is complete, operational criteria air pollutant emissions would be generated by motor vehicle trips to and from the site, fuel combustion from landscape maintenance equipment, evaporative emissions of ROG associated with the use of consumer products (paint, cleaning products, etc.), intermittent re-application of architectural coatings, and minor fugitive ROG emissions associated with the emergency generator fuel tank. CalEEMod was used to estimate the long-term operational emissions associated with area and energy sources (i.e., landscape maintenance, periodic architectural coatings, and consumer products), mobile sources, and stationary emissions from the emergency generator. The mobile source emissions are based on project-related daily trip information developed in support of this Initial Study. Given the anticipated intermittent and infrequent operating schedule for the emergency generator, fuel throughput would be minimal compared to typical operational tanks, resulting in minor fugitive emissions associated with infrequent refilling of the tank. Additionally, fugitive emissions associated with temperature and pressure changes would similarly be minimal due to the small tank size and would not result in emissions at a level that would cause an exceedance of the SMAQMD ROG threshold. Furthermore, the emergency generator would be subject to SMAQMD rules and permitting requirements for stationary sources, including Rule 201 (General Permit Requirements), Rule 202 (New Source Review), and BACT.

Detailed CalEEMod outputs are included in **Appendix A**. Table IS-4 presents the summary of the maximum daily and annual operational emissions compared to the SMAQMD thresholds

Table IS-4: Maximum Daily and Annual Operational Emissions of Criteria Air Pollutants and Precursors

Source	ROG (lbs/day)	NO_X (lbs/day)	$PM10^1$ (lbs/day)	$PM_{2.5}$ [1] (lbs/day)	PM_{10} [1] (tons/year)	$PM_{2.5}$ [1] (tons/year)
Mobile	0.11	2.89	0.56	0.17	0.10	0.03
Area	0.32	0.004	0.001	0.001	0.0001	0.0001
Emergency Generator	7.95	22.24	1.17	1.17	0.001	0.001
Total Operational Emissions	**8.38**	**25.13**	**1.73**	**1.34**	**0.10**	**0.03**
SMAQMD Significance Threshold[1]	65	65	80	82	14.6	15
Emissions Exceed SMAQMD Threshold?	No	No	No	No	No	No

Notes: lbs = pounds; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District

[1] Represents SMAQMD Threshold of Significance with the application of Best Management Practices (BMPs) and Best Available Control Technology (BACT).

Modeled by AECOM in 2024. See Appendix A for additional details.

As shown in Table IS-4, long-term emissions of criteria air pollutants and precursors would not exceed the SMAQMD thresholds. Nevertheless, to allow the use of non-zero PM significance thresholds, SMAQMD recommends implementation of operational BMPs/BACT, considered by SMAQMD to be feasible for reducing operational PM_{10} and $PM_{2.5}$ emissions from land use

development projects. The applicant would comply with those BMPs, as applicable to the proposed project, for compliance with SMAQMD and State regulations, as required by law, including SMAQMD Rules 202 (New Source Review) and 403 (Fugitive Dust) that control operational PM and NO_X emissions, and the applicable mandatory measures in the California Building Energy Efficiency Standards (Title 24, Part 6), the California Green Building Code (Title 24, Part 11), and the CARB anti-idling regulations (Title 13, California Code of Regulations, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling). However, for operational BMP 4 with regard to idling limitations, the SMAQMD recommends industrial and retail projects post signage informing the public and truck drivers of the State diesel- powered commercial vehicle idling regulations. Additionally, BACT is required to be implemented for stationary sources to support the use of the non-zero PM thresholds of significance in accordance with the SMAQMD operational BMPs. Without implementation of all of the operational BMPs/BACT, operational emissions of PM_{10} and $PM_{2.5}$ would be considered potentially significant. Mitigation Measure AQ-2 would require signage regarding idling limitations per SMAQMD's recommendations and implementation of BACT requirements for the project's emergency generator.

SIGNIFICANCE AFTER MITIGATION

While short-term construction and long-term operation of the proposed project would not result in criteria air pollutant or precursor pollutant emissions that would exceed the SMAQMD significance thresholds, implementation of the proposed project would result in an increase of PM_{10} and $PM_{2.5}$ emissions compared to existing conditions. The maximum daily emissions conservatively assume operation of the emergency generator, which would not be typical and would also likely not occur concurrently with other maximum operations of building and mobile sources. Nonetheless, SMAQMD considers any increase in construction or operational PM emissions to be significant unless the construction and operational BMPs/BACT are implemented. Therefore, Mitigation Measure AQ-1 would be required to enforce implementation of the SMAQMD Basic Construction Emissions Control Practices, and Mitigation Measure AQ-2 would be required to implement the SMAQMD operational BMP recommendation to post signage at project commercial entrances informing the public and truck drivers of the State diesel-powered commercial vehicle idling regulations and implementation of BACT for the emergency generator, which requires compliance with Tier 4 emission standards and would reduce the maximum daily emissions for ROG, NO_X, and PM (both PM_{10} and $PM_{2.5}$) by 95 percent, 91 percent, and 93 percent, respectively. With the implementation of Mitigation Measures AQ-1 and AQ-2, the proposed project would not result in a cumulatively considerable net increase of any criteria air pollutant for which the Sacramento region is non-attainment, and the impact would be **Less than Significant with Mitigation.**

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

As discussed in "Environmental Setting" above, some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, those with existing health conditions, and athletes or others who engage in frequent exercise are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include residences, schools, daycare centers, parks and playgrounds, and medical facilities.

The proposed development is adjacent to residential uses on the northern perimeter of the proposed project site, with a few rural residences located east and south of the proposed project site. The nearest school is approximately 1,700 feet to the northwest of the proposed development

area and a daycare center is located approximately 1,300 feet northeast of the proposed development area.

CONSTRUCTION-RELATED TAC EMISSIONS

Construction of the proposed project would generate emissions of TACs from the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These activities may expose nearby receptors, including residents in adjacent areas, to TACs, primarily in the form of DPM. More than 90 percent of DPM is less than 1 micrometer in diameter and thus is a subset of $PM_{2.5}$ (CARB 2024c). Therefore, exhaust $PM_{2.5}$ is used as the upper limit for DPM emissions associated with construction of the proposed project.

Health risk is a function of the concentration of contaminants in the environment and the duration of exposure to those contaminants. Even in intensive phases of construction, there would not be substantial pollutant concentrations from an individual project, with the potential exception of the immediate vicinity of the construction site. Concentrations of mobile-source DPM emissions are typically reduced by 60 percent at a distance of 300 feet from the source (Zhu and Hinds 2002), and by 70 percent at approximately 500 feet (CARB 2005). Site preparation, demolition, excavation, and grading are considered the most intensive construction phases with respect to heavy-duty diesel equipment. While these construction activities may take place within 25-40 feet of adjacent residences, they are all anticipated to occur over a total duration of three months. Additionally, these construction activities would occur throughout the project development area, which extends up to 230 feet away from adjacent residences. Therefore, construction activities would not be concentrated along the proposed project site boundary adjacent to residents for extended periods of time.

The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance. Exhaust $PM_{2.5}$ emissions during construction would be low due to the limited quantity of construction equipment anticipated for the proposed project. The maximum daily on-site exhaust $PM_{2.5}$ emissions would be a subset of the total $PM_{2.5}$ emissions shown in Table IS-3, which include fugitive dust and exhaust $PM_{2.5}$ emissions generated both on- and off-site. As detailed in Appendix A, the maximum daily on-site exhaust $PM_{2.5}$ emissions are estimated to be 0.54 pounds per day. The maximum daily emissions would only occur if all anticipated equipment were operated simultaneously on a given day, which is unlikely.

The risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer time. Health effects from TACs are often described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs for residences (OEHHA 2015). The total construction duration is projected to take place over approximately 2 years. As a result, the exposure of sensitive receptors to construction emissions would be less than 7 percent of the total residential exposure period and 8 percent of the total worker exposure period used for typical health risk calculations. Construction emissions would cease after completion of construction activities.

Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the project site for short periods, it is not anticipated that construction of the proposed project would not expose sensitive receptors to substantial DPM concentrations. As a result, this impact would be **Less than Significant**.

OPERATIONAL EMISSIONS AND EXPOSURE TO TACS AS SURROUNDING LAND USES

Similar to construction, TAC emissions generated during proposed project operational activities would primarily be in the form of DPM generated by vehicle trips associated with fire station employees and fire truck trips to and from the site and intermitted fuel combustion from the emergency generator and landscape maintenance equipment. As shown in Table IS-4, maximum daily operational emissions of $PM_{2.5}$ would be approximately 1.34 pounds per day. Emissions of exhaust $PM_{2.5}$ would be a subset of this at approximately 1.19 pounds per day, with the majority of the emissions generated by the emergency generator. For the purposes of modeling a maximum daily operational emissions scenario, the emergency generator was assumed to operate 24 hours in one day, which is reflected in the maximum daily emissions estimates provided. Therefore, this operational scenario and level of daily emissions is unlikely and actual daily operational emissions would likely be lower; for example, during typical operations (i.e., a day in which the emergency generator were not required), daily operational emissions would be 0.17 pounds. Additionally, the emergency generator would be required to comply with SMAQMD permitting regulations for stationary sources, including BACT which requires compliance with Tier 4 emission standards; use would be limited to backup requirements and would not be a constant source of new on-site emissions; and it would be located at the southern perimeter of the proposed development area, opposite the most proximate residences in the Bradshaw Vineyard Village development adjacent to the northern project site boundary. Mobile $PM_{2.5}$ exhaust emissions would be generated by vehicle trips to and from the proposed project site, primarily generating emissions off-site and not proximate to the proposed project site perimeter and nearby residences. These operational emissions would not be considered a substantial source of TACs and this impact related to operational TAC emissions would be **Less than significant.**

HEALTH EFFECTS OF REGIONAL CRITERIA AIR POLLUTANTS

Criteria air pollutants can have human health effects at various concentrations, depending on the duration of exposure and type of pollutant. As discussed above, CAAQS and NAAQS were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. Similarly, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. With respect to regional air quality, the SMAQMD region, including Sacramento County, is currently designated as nonattainment for the NAAQS for ozone and 24-hour $PM_{2.5}$, and nonattainment for the CAAQS for ozone and PM_{10} (SMAQMD 2024). As noted above, projects that emit criteria air pollutants that exceed the SMAQMD thresholds of significance are considered to be "cumulatively considerable" and may contribute to the regional cumulative degradation of air quality that could result in impacts to human health.

Health effects associated with ozone include respiratory symptoms, worsening of lung disease, and damage to lung tissue. In recent years, a correlation has also been reported between elevated ambient ozone levels and increases in daily hospital admission rates and mortality (EPA 2024a). ROG and NO_X are precursors to ozone, for which the SVAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of ROG and NO_X to regional ambient ozone concentrations is the result of complex photochemistry. The increases in ozone concentrations in the SVAB due to ozone precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of ozone precursors is speculative. Health effects associated with short- and long-term exposure to elevated concentrations of PM_{10} include respiratory symptoms, aggravation of respiratory and cardiovascular diseases, a weakened immune system, and cancer. $PM_{2.5}$ poses

an increased health risk because these very small particles can be inhaled deep in the lungs and may contain substances that are particularly harmful to human health (CARB 2024b).

The proposed project would generate criteria air pollutant emissions during construction and operations, and the primary pollutants of concern would be ozone precursors (ROG and NO_X) and PM. Adverse health effects induced by regional criteria air pollutant emissions generated by the proposed project are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). Ozone precursors contribute to the formation of ground-borne ozone on a regional scale, such that emissions of ROG and NO_X generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutants may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Although modeling techniques exist to simulate the complex regional photochemical reactions which form ozone and secondary PM_{10} and $PM_{2.5}$, and techniques exist to quantify the resultant health effects from regional distributions of criteria pollutants, the modeling has a high degree of uncertainty. Existing models have limited sensitivity to small changes in regional criteria air pollutant concentrations, and as such, translating project-generated regional criteria air pollutants to specific health effects would not produce meaningful results. In other words, minor increases in regional air pollution from project-generated ROG and NO_X would have nominal or negligible impacts on human health. Currently, CARB and EPA have not approved a quantitative method to meaningfully and consistently translate the mass emissions of criteria air pollutants from a project to quantified health effects. As explained in the amicus brief filed by the South Coast Air Quality Management District (SCAQMD) in the Sierra Club v. County of Fresno (2014) 26 Cal.App.4th 704, it "takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels" (SCAQMD 2015).

The results from regional modeling of small sources of emissions, such as the project emissions, are not statistically meaningful. In 2020, SMAQMD published Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District (SMAQMD 2020b), which provides a screening level analysis estimating the health effects of criteria air pollutants and their precursors, as well as provides guidance for conducting a health effects analysis of a project that satisfies the requirements of the *Sierra Club v. County of Fresno*, 2018, 6 Cal. 5th 502 case ruling regarding the proposed Friant Ranch Project. The Guidance was prepared by conducting regional photochemical modeling and relies on the EPA's Benefits Mapping and Analysis Program to assess health impacts from ozone and $PM_{2.5}$. An analysis was conducted to estimate the level of health effects for a proposed project that has emissions at the maximum SMAQMD-recommended thresholds of significance using 41 hypothetical project locations, as well as a screening model conducted to estimate potential health effects for strategic areas where development is anticipated to cause exceedance of thresholds of significance. The results were used to develop two screening tools intended to support individual projects in analyzing health risks from criteria air pollutants: the Minor Project Health Screening Tool for projects with criteria pollutant emissions below SMAQMD's adopted thresholds of significance, and the Strategic Area Project Health Screening Tool for projects with emissions between two and eight times the SMAQMD threshold levels.

The modeling results support the conclusion that any one proposed project in the SFNA, which is inclusive of the proposed project site, with emissions at or below the maximum SMAQMD

thresholds of significance levels for criteria air pollutants does not on its own lead to sizeable health effects. As discussed in impact b), above and shown in Table IS-3 and Table IS-4, project-related emissions would be below the SMAQMD-recommend thresholds of significance. As described previously, the SMAQMD modeling indicates that for projects with emissions at or below the maximum SMAQMD thresholds of significance levels for criteria air pollutants, the project on its own does not lead to sizeable health effects. As discussed above, the nature of criteria air pollutants is such that the emissions from an individual project cannot be directly identified as responsible for health impacts within any specific geographic location. Neither SMAQMD nor the County of Sacramento have adopted thresholds of significance for the assessment of health risks related to the emission of criteria air pollutants. Furthermore, an industry standard level of significance has not been adopted or proposed. As a result, attributing health risks at any specific geographic location to a single proposed project is not feasible, and this preceding information and consideration is presented for informational purposes only.

CARBON MONOXIDE HOT SPOTS

A mobile-source pollutant of localized concern is CO. Continuous engine exhaust may elevate localized CO concentrations, or "CO hot spots." As noted by SMAQMD in the CEQA Guide, land use development projects do not typically have the potential to result in localized concentrations of criteria air pollutants that expose sensitive receptors to substantial pollutant concentrations; this is because criteria air pollutants are predominantly generated in the form of mobile-source exhaust from vehicle trips associated with development projects. These vehicle trips occur throughout a paved network of roads, and, therefore, associated exhaust emissions of criteria air pollutants are not generated in a single location where high concentrations could be formed. However, there may be unique situations where a project with high levels of emissions may require concentration modeling to determine if the emissions will expose sensitive receptors to substantial pollutant concentrations (SMAQMD 2021a). SMAQMD does not have a threshold for mass emissions of CO, but the proposed project's emissions of ROG, NO_X, $PM_{10,}$ and $PM_{2.5}$ are well below the SMAQMD's thresholds, indicating that the proposed project does not have high levels of emissions. The proposed project would not result in prolonged idling throughout the day, nor contribute substantial amounts of vehicular traffic to congested, high-volume roadways. The proposed project would generate a very limited number of daily trips at 62 trips per day, of which 16 trips per day are passenger vehicles for worker trips, which are more attributable for CO emissions than the remaining diesel-fueled fire truck trips. Finally, the surrounding intersections at which vehicle trips may increase are not locations of typically limited vertical and/or horizontal ambient air (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadways), and therefore would not likely be subject to elevated concentrations of CO. Due to the low level of emissions that would be generated by the proposed project and the lack of conditions that would limit dispersion of CO emissions from vehicle exhaust, the proposed project would not expose sensitive receptors to substantial localized criteria air pollutant concentrations, including localized concentration of CO from exhaust emissions, or "CO hotspots," and the impact would be **Less than Significant**.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

CONSTRUCTION ACTIVITIES

Odors associated with diesel exhaust and ROG from application of asphalt and architectural coatings would be emitted during project construction and may be considered offensive to some individuals. Taking into consideration the fact that odors would be temporary and disperse rapidly

with distance from the source, construction-generated odors would not result in the frequent exposure of receptors to objectionable odor emissions. Furthermore, the proposed project would be required to comply with SMAQMD's Rule 402 (Nuisance), which places general limitations on odorous substances and nuisances. This regulation would ensure that odors generated by short-term construction would not affect a substantial number of people. Therefore, this impact would be **Less than Significant**.

Operational Activities

Odors associated with operation of the proposed project may result from the periodic reapplication of architectural coatings and minimal exhaust emissions from fire trucks and other personnel vehicles. The proposed project would not include any land uses typically associated with generating odors, which include wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants (SMAQMD 2021a). Furthermore, as previously noted, nuisance odors are regulated under SMAQMD Rule 402. Considering the proposed project would not be a typical odor-generating land use and the minimal odors generated would disperse rapidly and be considered consistent with existing mobile source emissions and related odors from vehicle exhaust, operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people Therefore, this impact would be **Less than Significant**.

Environmental Mitigation Measures

Mitigation Measure AQ-1: Basic Construction Emissions Control Practices

The following Basic Construction Emissions Control Practices are considered feasible for controlling fugitive dust from a construction site. Control of fugitive dust is required by SMAQMD Rule 403 and enforced by SMAQMD staff. Prior to issuing grading or construction permits, the County shall verify the following measures are specified on construction contracts and/or construction documentation.

Basic Construction Emissions Control Practices

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 mph;
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;

- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to 5 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site; and

- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation; and

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Mitigation Measure AQ-2: **Commercial Vehicle Idling**.

Prior to issuing occupancy permits for any of the project's commercial buildings, the County shall verify that commercial vehicle idling signs are installed at all project driveways where commercial vehicles may enter the project site. The signs shall be easily readable by a driver from the cab of a truck entering the site, and by SMFD operational staff. The signs shall include the following information:

- Diesel-powered commercial motor vehicles with more than 10,000 gross vehicular weight rating shall not idle on the project site for more than 5 minutes per Title 13, CCR, section 2485; and

- Report an idling violation to the California Air Resources Board by calling 1-800- END-SMOG (1-800-363-7664); and

Report an idling violation to the project retail development property management (916-859-4160).

V. BIOLOGICAL RESOURCES

Biological Resources Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Have a substantially 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. 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?	☐	☒	☐	☐
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?	☐	☐	☒	☐
e. Adversely affect or result in the removal of native or landmark trees?	☐	☒	☐	☐
f. Conflict with any local policies or ordinances protecting biological resources?	☐	☐	☐	☒
g. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

BIOLOGICAL RESOURCE ASSESSMENT

A biological reconnaissance survey was conducted by AECOM biologist Renee Richardson on January 10, 2025, to document current site conditions, biological resources, and habitat potential and map the land covers present in the 4.6-acre project area. The mapped land covers were classified consistent with the South Sacramento Habitat Conservation Plan (SSHCP, County of Sacramento et al. 2018a) and were cross referenced with the Manual of California Vegetation Online (CNPS 2025a) to determine if vegetation communities present onsite conform to sensitive

natural communities. Natural (vegetation) communities are assessed for their rarity and assigned a State (S) rank of S1 through S5. Natural communities with a rank of S1 through S3 are considered Sensitive Natural Communities (CDFW 2025a).

Land covers were later assessed for the potential to provide habitat for special-status wildlife and plant species known to occur in the project vicinity. Aquatic resource features that may qualify as potentially jurisdictional wetlands or other waters of the United States or State were also assessed. Trees in the project area that occur within the project limits of work were mapped, the species noted, and the DBH was measured.

Prior to conducting the reconnaissance survey, AECOM biologists conducted a desktop review of the following biological databases for special-status species that are known from the project vicinity:

- United States Fish and Wildlife Service (USFWS) Information, Planning and Consultation (IPaC, USWFS 2025a),
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB, CDFW 2025b),
- California Native Plant Society (CNPS) Rare Plant Inventory (RPI) (CNPS 2025b).

The CNDDB (CDFW 2025b) was queried for special-status plant and wildlife species known from eight of the nine USGS 7.5-minute quadrangles including and surrounding the project area: Clay, Carmichael, Elk Grove, Sloughhouse, Galt, Buffalo Creek, Florin, and Sacramento East. The ninth quad, Bruceville, was omitted due to distance from the project area and proximity to the delta, which would result in analysis of species not known to occur in the project area vicinity. The CNPS RPI, (CNPS 2025b) was queried for the same USGS quadrangles. The IPaC (USFWS 2025a) was queried for the project area. The SSHCP Covered Species habitat models (Sacramento County et al. 2018a) were reviewed to determine Covered Species modeled habitat that overlaps the project area. The results from these queries were compiled to summarize all special-status plant and wildlife species known from the project vicinity and are provided as Table IS-6 and Table IS-7 (please refer to Section V. Biological Resources, Environmental Setting, Special-Status Species), respectively.

Special-status species includes the following categories:

- SSHCP Covered Species with modeled habitat in the project area;
- Species that are listed under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA) as rare, threatened, or endangered;
- Species considered to be candidates and proposed for federal or state listing as threatened or endangered;
- Wildlife designated by California Department of Fish and Wildlife (CDFW) as fully protected or species of special concern;
- Birds protected under the federal Migratory Bird Treaty Act (MBTA) and/or California Fish and Game Code Sections 3503, 3503.5, 3800(a), and 3513;

- Plants included in the CNPS RPI to be rare, threatened, or endangered in California. Specifically, including plants on Lists 1A, 1B, 2A and 2B of the CNPS California Rare Plant Ranks (CRPR).

In addition to the biological resource databases, the following resources were also reviewed to aid in the preparation of this analysis:

- Google Earth Historical Imagery (Google Earth 2025);
- National Wetlands Inventory (NWI, USFWS 2025b);
- National Hydrography Dataset (NHD, USGS 2024);
- Final SSHCP Vol. 1. (County of Sacramento et al. 2018a);
- Final SSHCP Aquatic Resource Program Vol. 1 (County of Sacramento et al. 2018b);

PROJECT LOCATION AND SETTING

The project site is a 4.6-acre undeveloped parcel (Assessor Parcel Number 122-0140-010-0000) at 8101 Bradshaw Road in Sacramento, Sacramento County, California. The project site is within the Preserve Planning Unit (PPU) 3 of the SSHCP. The center of the project site is at approximately 38.463077 and -121.333523 decimal degrees (latitude and longitude, respectively), within the Elk Grove USGS 7.5-Minute quadrangle. The landscape of the area is relatively flat with an average elevation of 70 feet above mean sea level.

The project site is primarily characterized by routinely disturbed annual grassland interspersed with scattered trees and vernal pool complexes. Riparian habitat associated with Laguna Creek, located outside the project boundary, crosses the southeastern corner. The surrounding landscape includes residential development to the north, rural and low-density residential areas to the east and south, and Bradshaw Road along with undeveloped vernal pool/valley grassland habitat to the west. Laguna Creek also borders the southern edge of the site.

Situated in California's Great Central Valley, the project area falls within a region historically characterized by grassland, oak woodland, riparian, wetland, alkali sink vegetation, and vernal pool habitats. However, much of the native landscape has been converted to agricultural use (JFP 2025).

LAND COVERS

Five land cover types were observed within the project site: valley grassland, vernal pool, mixed riparian woodland, trees, and roadside ditch. Table IS-5 summarizes project site land covers total area (acres) and the proposed project impacts, which were calculated by overlaying the proposed project design over the land cover map. A description of each land cover type is provided below, is shown in the land cover map provided as Plate IS-8. The proposed project impacts to land covers are shown in Plate IS-9. Land cover designations are consistent with the SSHCP and were cross referenced with A Manual of California Vegetation Online (CNPS 2025a) to determine if vegetation communities conform to a sensitive natural community.

Table IS-5: Project Land Cover and Proposed Impacts

Land Cover Type	Sensitive Natural Community	Total Acres in Project Area	Acres of Temporary Impacts	Acres of Permanent Impacted
Valley Grassland	No	4.1	0.4	3.0
Mixed Riparian Woodland	Yes	0.06	0.0	0.0
Vernal Pool	Yes	0.3	0.0	0.3
Roadside Ditch	No	<0.1	0.0	<0.1
Trees	No	0.18	0.2	<0.1

VALLEY GRASSLAND

The valley grassland herbaceous vegetation community is typically dominated by Mediterranean annual grasses. Native and nonnative forbs are also common though density and composition is variable. In the project area, this is the predominant land cover type and common plant species includes slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), curly dock (*Rumex crispus*), field bindweed (*Convolvulus arvensis*), and filaree (*Erodium spp.*). Review of historical aerial imagery indicates that this land cover type receives routine discing. Valley grassland habitat in the project area provides potential foraging, nesting, breeding, and refuge to special-status wildlife species including: western pond turtle (*Actinemys marmorata*), giant gartersnake (*Thamnophis gigas*), Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), and northern harrier (*Circus hudsonius*).

MIXED RIPARIAN WOODLAND

Riparian habitats are transition zones between aquatic and upland habitats. They typically occur at the boundary of water bodies such as rivers, streams, lakes, and ponds. Riparian habitat can provide valuable habitat to wildlife including aiding in migration and improving habitat connectivity. A small portion of mixed riparian woodland canopy overlaps the southeast corner of the project area. The mixed riparian woodland is associated with Laguna Creek, just outside of the project area, to the southeast. This woodland is dominated by valley oak and willow (*Salix* spp.) and has an understory of annual grasses and forbs. This vegetation community conforms to a sensitive natural community, valley oak riparian forest and woodland, which is has a state rarity rank of S3 (CNPS 2025a). The riparian woodland habitat in the project area provides potential foraging, nesting, breeding, and refuge habitat to special-status wildlife species including: Purple martin (*Progne subis*), Western red bat (*Lasiurus blossevillii*), Cooper's hawk, and Swainson's hawk.

Plate IS-9: Land Covers

Source: AECOM 2025

Plate IS-10: Project Impacts to Land Covers

Source: AECOM 2025

VERNAL POOL

Three vernal pool features are present in the south-central portion of the project site. A review of historical imagery suggests the middle vernal pool, which is much deeper than the other two, may have been modified between August 1998 and May 2002 (Google Earth 2025). It is unclear if this feature is a created or natural vernal pool or seasonal wetland that was modified. Plants species observed in this feature include pale spike rush (*Eleocharis macrostachya*), vernal pool buttercup (*Ranunculus bonariensis*), and wall barley (*Hordeum marinum*). Vernal pool land cover likely conforms to the sensitive natural community smooth goldfields-pale spike rush vernal pool bottoms (*Lasthenia glaberrima – Eleocharis macrostachya* Herbaceous Alliance), which has a state rarity rank of S2.

The vernal pools were supporting water and hydrophytic plant species at the time of the January 2025 reconnaissance survey and therefore are potentially jurisdictional wetlands. The vernal pools do not have a relatively permanent surface water connection to a navigable water or a Water of the U.S so therefore they are not anticipated to qualify as a Water of the U.S. However, they would qualify as Waters of the State and as an aquatic resource subject to the SSHCP Aquatic Resource Program (ARP).

The vernal pools within the project's grading limits have the potential to support a wide range of special-status wildlife and plant species, including: Dwarf downingia (*Downingia pusilla*), Legenere (*Legenere limosa*), Sanford's arrowhead (*Sagittaria sanfordii*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), Vernal pool fairy shrimp (*Branchinecta lynchi*), Vernal pool tadpole shrimp (*Lepidurus packardi*), and Western spadefoot (*Spea hammondii*).

ROADSIDE DITCH

A roadside ditch occurs on the western boundary of the project site. It is a feature constructed in upland, to drain the area. It has low vegetation cover with some weedy and valley grassland species present. The roadside ditch offers only temporary and opportunistic foraging or cover to common wildlife species. This aquatic resource is not anticipated to be a potentially jurisdictional other water or subject to the SSHCP ARP.

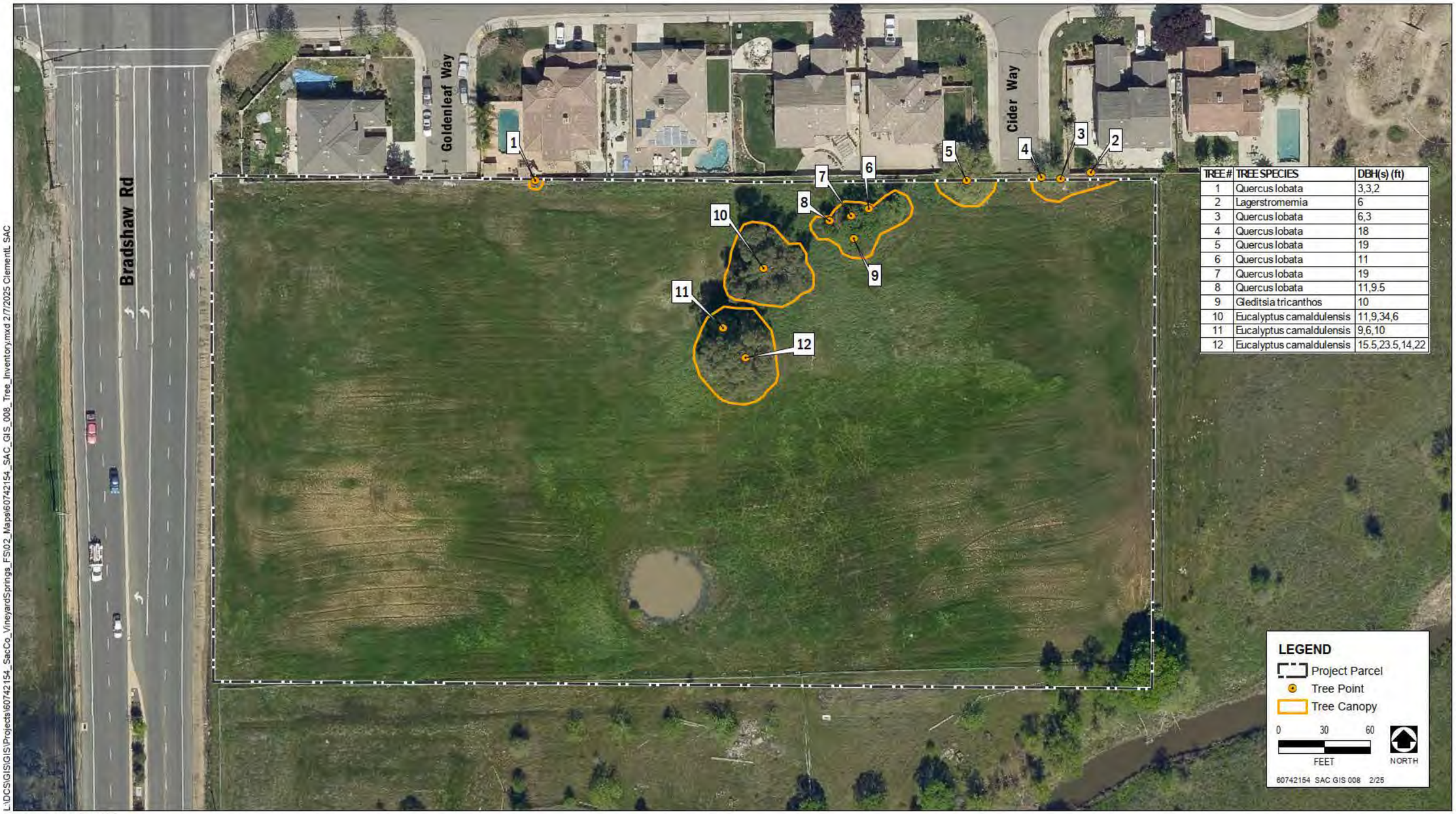
TREES

A total of 12 scattered trees are present in the valley grassland on the project site, primarily in the northeast portion. There are three large red gum (*Eucalyptus camadulensis*), seven valley oaks, a honey locust (*Gleditsia triancanthos*), and a crepemyrtle (*Lagerstroemia* sp.). Trees can provide valuable habitat for special-status bird species including nesting habitat for raptors, migratory birds, bats, and habitat for common wildlife species. Plate IS-10 Tree Inventory, provides general information (location, species and DBH) of trees within the project limits of disturbance.

SPECIAL-STATUS SPECIES

The special-status plant and wildlife species reported from the project vicinity were assessed for their potential to occur in the project area based on the habitats present in the project area, the known habitat requirements of the species, and the species known distribution. No special status species were observed during the reconnaissance field survey.

Plate IS-11: Project Tree Inventory



TREE #	TREE SPECIES	DBH(s) (ft)
1	Quercus lobata	3,3,2
2	Lagerstromemia	6
3	Quercus lobata	6,3
4	Quercus lobata	18
5	Quercus lobata	19
6	Quercus lobata	11
7	Quercus lobata	19
8	Quercus lobata	11,9.5
9	Gleditsia tricanthos	10
10	Eucalyptus camaldulensis	11,9,34,6
11	Eucalyptus camaldulensis	9,6,10
12	Eucalyptus camaldulensis	15.5,23.5,14,22

Source: AECOM 2025

Results for special-status plant species database queries indicate that 13 special-status plant species are reported to occur in the project vicinity. Table IS-6 provides information about each special-status plant species, blooming period, growth form, habitat, and potential to occur. Of the 13 special-status plant species reported from the project vicinity, three have the potential to occur in the project area. The remaining special-status plant species known from the project vicinity were determined to have no potential to occur in the project area because there is no suitable habitat, or the project area is outside of the species known range. The three species with potential to occur are listed below along with their protection status. Plate IS-11 shows the CNDDB Plant Species records and the USFWS Critical Habitat for special-status plants species within a 5-mile radius of the project area. No USFWS designated Critical Habitat does overlaps with the project area.

Special-status plant species with the potential to occur in the project area include:

- Dwarf downingia (*Downingia pusilla*) CRPR: 2B.2
- Legenere (*Legenere limosa*) CRPR: 1B.1
- Sanford's arrowhead (*Sagittaria sanfordii*): CRPR: 1B.2, SSHCP modelled habitat

Results for special-status wildlife species database queries and desktop review indicate that 30 special-status wildlife species are reported to occur in the project vicinity. Table IS-7 summarizes information about these wildlife species including listing status, habitat requirements, distribution, and potential to occur. Of the 30 special-status wildlife species- reported from the project vicinity, 15 have the potential to occur in the project area. The remaining special-status wildlife species known from the project vicinity were determined to have no potential to occur because there is not suitable habitat in the project area, or because the project area is outside of the species known range. The 15 species with potential to occur in the project area are listed below along with their protection status. Plate IS-12 shows the CNDDB Wildlife Species records and the USFWS Critical Habitat for wildlife species within a 5-mile radius of the project area. No USFWS designated Critical Habitat overlaps with the project area.

Special status wildlife species with the potential to occur in the project area include:

- Midvalley fairy shrimp (*Branchinecta mesovallensis*): SSHCP modelled habitat
- Vernal pool fairy shrimp (*Branchinecta lynchi*): Federally listed as Threatened, SSHCP modelled habitat
- Vernal pool tadpole shrimp (*Lepidurus packardi*): Federally listed as Endangered, SSHCP modelled habitat
- Western pond turtle (*Actinemys marmorata*): Proposed for Federal listing as Threatened, California Species of Special Concern, SSHCP modelled habitat
- Giant gartersnake (*Thamnophis gigas*): Federally listed as Threatened, State listed as Threatened, SSHCP modelled habitat
- Western spadefoot (*Spea hammondii*): Proposed for Federal listing as Threatened, California Species of Special Concern, SSHCP modelled habitat

Table IS-6: Special-Status Plant Species Reported from the Project Vicinity Potential to Occur

Common and Scientific Name	Special Status[1]	Blooming Period	Growth Form	Habitat	Potential to Occur[2]
spicate calycadenia *Calycadenia spicata*	**Federal**: None **State**: None **CRPR**: 1B.3 **SSHCP**: No	May-Sep	annual herb	**General Habitat:** Cismontane woodland, Valley and foothill grassland. **Microhabitat**: Adobe, Clay, Disturbed areas, Dry, Gravelly, Openings, Roadsides, Rocky. **Elevation (ft):** 130 to 4,595.	**No potential to occur**. Suitable clay substrate is not present in the project area and the project area is west of this species know distribution. The closest CNDDB record (#23) is 14.6 miles east of the project area.
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	**Federal**: None **State**: None **CRPR**: 2B.2 **SSHCP**: No	Jul-Oct	annual vine (parasitic)	**General Habitat:** Marshes and swamps (freshwater). **Elevation (ft):** 50 to 920.	**No potential to occur**. Suitable marsh and swamp habitats are not present in the project area The closest known CNDDB record (#) is 5.8 miles to the southwest of the project area.
dwarf downingia *Downingia pusilla*	**Federal**: None **State**: None **CRPR**: 2B.2 **SSHCP**: Yes	Mar-May	annual herb	**General Habitat:** Valley and foothill grassland (mesic), Vernal pools. **Elevation (ft):** 5 to 1,460.	**Potential to occur**. Potentially suitable vernal pool, mesic grassland, and roadside ditch habitat is present in the project area. The closest CNDDB record (#54) is 2.2 miles southwest of the project area. The project area does not overlap with SSHCP modeled habitat for this species.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	**Federal**: None **State**: CE **CRPR**: 1B.2 **SSHCP**: Yes	Apr-Aug	annual herb	**General Habitat:** Marshes and swamps (lake margins), Vernal pools. **Microhabitat**: Clay. **Elevation (ft):** 35 to 7,790.	**No potential to occur**. Potentially suitable vernal pool habitat is present in the project area however suitable clay soil is not reported in the project area. The closest CNDDB record (#34) is 1.0 miles west of the project area. The project area does not overlap with SSHCP modeled habitat for this species.
woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	**Federal**: None **State**: None **CRPR**: 1B.2 **SSHCP**: No	Jun-Sep	perennial rhizomatous herb (emergent)	**General Habitat:** Marshes and swamps (freshwater). **Microhabitat**: Often in riprap on sides of levees. **Elevation (ft):** 0 to 395.	**No potential to occur**. Suitable marsh and swamp habitat is not present in the project area. The closest CNDDB record (#190) is 8.7 miles west of the project area.

Common and Scientific Name	Special Status[1]	Blooming Period	Growth Form	Habitat	Potential to Occur[2]
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	**Federal**: None **State**: None **CRPR**: 1B.2 **SSHCP**: Yes	Mar-May	annual herb	**General Habitat:** Valley and foothill grassland (mesic). **Elevation (ft):** 100 to 750.	**No potential to occur**. The project is out of the range for this species. The closest CNDDB recotd (#8) is 6.6 miles northeast of the project area. The project area does not overlap with SSHCP modeled habitat for this species.
alkali-sink goldfields *Lasthenia chrysantha*	**Federal**: None **State**: None **CRPR**: 1B.1 **SSHCP**: No	Feb-Apr	annual herb	**General Habitat:** Vernal pools. **Microhabitat**: Alkaline. **Elevation (ft):** 0 to 655.	**No potential to occur**. Potentially suitable vernal pool habtiat is present however alkaline and saline habitat is not present. The closest known CNDDB record (#44) is 9.5 miles southwest of the project area.
legenere *Legenere limosa*	**Federal**: None **State**: None **CRPR**: 1B.1 **SSHCP**: Yes	Apr-Jun	annual herb	**General Habitat:** Vernal pools. **Elevation (ft):** 5 to 2,885.	**Potential to occur**. Potentially suitable vernal pool habitat is present in the project area. The closest known CNDDB (#60) is 1.5 miles northwest for the project area. The project area does not overlap with SSHCP modeled habitat for this species.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	**Federal**: None **State**: None **CRPR**: 1B.2 **SSHCP**: No	Mar-May	annual herb	**General Habitat:** Valley and foothill grassland (alkaline flats). **Elevation (ft):** 5 to 655.	**No potential to occur**. Suitable alkaline habitat is not present in the project area. The closest known CNDDB record (#15) is 10.4 miles southwest of the project area.
slender Orcutt grass *Orcuttia tenuis*	**Federal**: FT **State**: CE **CRPR**: 1B.1 **SSHCP**: Yes	May-Sep(Oct)	annual herb	**General Habitat:** Vernal pools. **Microhabitat**: Gravelly (often). **Elevation (ft):** 115 to 5,775.	**No potential to occur**. The project is out of the range for this species. The closest known CNDDB record is (#90) is 2.3 miles east of the project area. The project area does not overlap with SSHCP modeled habitat for this species.
Sacramento Orcutt grass *Orcuttia viscida*	**Federal**: FE **State**: CE **CRPR**: 1B.1 **SSHCP**: Yes	Apr-Jul(Sep)	annual herb	**General Habitat:** Vernal pools. **Elevation (ft):** 100 to 330.	**No potential to occur**. The project is out of the range for this species. The closest known CNDDB record (#20) is 3.1 miles northeast of the project area. The project area does not overlap with SSHCP modeled habitat for this species.
Sanford's arrowhead *Sagittaria sanfordii*	**Federal**: None **State**: None **CRPR**: 1B.2 **SSHCP**: Yes	May-Oct(Nov)	perennial rhizomatous herb (emergent)	**General Habitat:** Marshes and swamps (shallow freshwater). **Elevation (ft):** 0 to 2,135.	**Potential to occur**. The vernal pools have the potential to support this species and the project area overlaps SSHCP modeled habitat for this species.The closest CNDDB record (#56) is 0.5 miles east of the project area.

Common and Scientific Name	Special Status[1]	Blooming Period	Growth Form	Habitat	Potential to Occur[2]
saline clover *Trifolium hydrophilum*	**Federal**: None **State**: None **CRPR**: 1B.2 **SSHCP**: No	Apr-Jun	annual herb	**General Habitat:** Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools. **Elevation (ft):** 0 to 985.	**No potential to occur**. Suitable alkaline conditions do not occur in the project area and the project area is east of this species known distribution. The closest known CNDDB record (#37) is 8.6 miles southwest of the project area.

Notes:
CRPR = California Rare Plant Rank
CESA = California Endangered Species Act
CNDDB = California Natural Diversity Database
SSHCP = South Sacramento Habitat Conservation Plan.

1 Regulatory Status Definitions:
Federal Status Categories
FE = Listed as endangered under United States Endangered Species Act
FT = Listed as endangered under United States Endangered Species Act
California State Status Categories
SE = Listed as endangered under the California Endangered Species Act
CE = Candidate for listing as endangered under California Endangered Species Act
California Rare Plant Rank (CRPR) Categories:
1B = Plant species considered rare or endangered in California and elsewhere
2B = Plants rare, threatened, or endangered in California but common elsewhere
Sources: CNPS 2025a
CRPR Threat Rank Extensions:
.1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
.2 Fairly endangered in California (20 to 80% of occurrences are threatened)
.3 Not very threatened in California (less than 20% of occurrences threatened, low degree and immediacy of threat or no current threats known)
SSHCP Categories
Yes = Species is covered under the South Sacramento Habitat Conservation Plan.
No = Species is not covered under the South Sacramento Habitat Conservation Plan

2 Potential for Occurrence:
No potential to occur: The project area is outside the species' range or does not support suitable habitat for this species.
Potential to occur: The project area supports suitable habitat for the species and present and recorded occurrences and there is an occurrence record(s) of the species present in the nearby vicinity.

Table IS-7: Special-Status Wildlife Species Reported from the Project Vicinity Potential to Occur

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
Crustaceans				
vernal pool fairy shrimp *Branchinecta lynchi*	Federal: T State: None CDFW: None SSHCP: Yes	Vernal pools in valley and foothill grassland; small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains.	Potential to occur. The vernal pool provides potentially suitable habitat for this species. The closest CNDDB record (#343) is 50 feet to the west of the project area. The project area overlaps SSHCP modeled vernal pool landscape habitat for this species.
midvalley fairy shrimp *Branchinecta mesovallensis*	Federal: None State: None CDFW: None SSHCP: Yes	Has been found in small, short-lived vernal pools and grass-bottomed swales.	Sacramento, Solano, Merced, Madera, San Joaquin, Fresno, and Contra Costa Counties	Potential to occur. Potentially suitable vernal pool habitat is present in the project area. The closest CNDDB record (#114) is 0.5 mile northwest of the project area. The project area overlaps SSHCP modeled vernal pool landscape habitat for this species.
vernal pool tadpole shrimp *Lepidurus packardi*	Federal: E State: None CDFW: None SSHCP: Yes	Vernal pools in valley and foothill grassland; pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Sacramento Valley	Potential to occur. Potentially sutiable vernal pool habitat is present in the project area. The closest CNDDB record (#165) is approximately 50 feet to the west of the project area. The project area overlaps SSHCP modeled vernal pool landscape habitat for this species.
Insects				
Crotch's bumble bee *Bombus crotchii*	Federal: None State: CE CDFW: None SSHCP: No	Open grassland and scrub; nests underground. Food plants include Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia.	Historically occurring from the Northern Central Valley to Baja California, Crotch Bumble Bee is now believed to be absent from 70% of its historic region. and now primarily persists in coastal southern California habitats, though also survives in a few areas around Sacramento.	No potential to occur. Valley grassland provides marginal but potentially suitable foraging habitat, however the routine discing/tilling of this habitat likely limits ground nesting. The closest CNDDB record (#290) is 9.6 miles northeast of the project area.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
monarch butterfly *Danaus plexippus*	Federal: PT State: None CDFW: None SSHCP: No	This species can breed or forage in a field, roadside area, open area, wet area, or urban garden, as long as there is milkweed and flowering plants around. This species requires milkweed for breeding.	Occurs as north as northeast United States and as south as Central Mexico.	No potential to occur. Valley grassland habitat in the project area may provide potentially suitable habitat. Breeding habitat (milkweed) was not observed during the January 2025 survey, however, milkweed may have been dormant at that time and not identifiable. The routine disturbance of the valley grassaland prevent the survival of perennial plants such as milkweed. The closest record (#22,196) of breeding monarchs is approximately 9 miles northwest of the project area (Xerces 2025).
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Federal: T State: None CDFW: None SSHCP: Yes	Riparian scrub, elderberry savannah. Host plant is the elderberry shrub (Sambucus nigra ssp. cerulea). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	Occurs only in the Central Valley.	No potential to occur. Suitable habitat (elderberry shrubs) is not present in the project area. The closest CNDDB record (#163) is 4.0 miles southeast of the project area. However, the project area overlaps with SSHCP modeled habitat for this species in the southeast corner where there is mixed riparian woodland land cover.
Ricksecker's water scavenger beetle *Hydrochara rickseckeri*	Federal: None State: None CDFW: None SSHCP: Yes	Occurs in playa-like vernal pools and ponds.	San Francisco Bay Area including San Mateo, Sonoma, Alameda, and Marin Counties; Also in Solano, Contra Costa, and Sacramento Counties	No potential to occur. Marginal potentially suitable vernal pool habitat is present in the project area, however it is not playa like. The closest CNDDB record (#5) is 6.5 miles northeast of the project area. The project area does not overlap SSHCP modeled habitat for this species.
Reptiles				
western pond turtle *Actinemys marmorata*	Federal: PT State: None CDFW: SSC SSHCP: Yes	Aquatic; ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Needs basking sites and suitable (i.e., sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	West of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Below 6,000 feet elevation.	Potential to occur. The mixed riparian woodland and adjacent grassland provide potentially suitable habitat for this species. The closest CNDDB record (#132) 6.6 miles southwest of the project area. The project area overlaps SSHCP modeled upland habitat for this species.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
giant gartersnake *Thamnophis gigas*	Federal: T State: T CDFW: None SSHCP: Yes	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	Historical range was in the Sacramento and San Joaquin valleys, but its current range is much reduced, and it apparently is extirpated south of Fresno County, except for western Kern County.	Potential to occur. Mixed riparian woodland and valley grassland habitats provide potentially suitable upland habitat for this species and Laguna Creek, just outside of the project area, provides suitable aquatic habitat for the species. The closest CNDDB record (#84) is 4.0 miles southwest of the project area and is reported as possibly extripated. The project area overlaps SSHCP modeled upland habitat for this species.
Amphibians				
California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	Federal: T State: T CDFW: WL SSHCP: Yes	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for reproduction and larval development; rodent burrows, rock crevices, or fallen logs for cover for adults and juveniles for summer dormancy.	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	No potential to occur. The vernal pools in the project area are potentially suitable habtiat for this species however, this speciesis thought to be extripated in the Central Valley north of the Consumnes River. The closest CNDDB record (#1,113) is 11.3 miles east of the project area. The project area does not overlap SSHCP modeled habitat for this species.
western spadefoot *Spea hammondii*	Federal: PT State: None CDFW: SSC SSHCP: Yes	Occurs primarily in grassland habitats but can be found in valley–foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Throughout the Central Valley and adjacent foothills.	Potential to occur. The vernal pools in the project area provides potentially suitable habitat for this species. The closest CNDDB record (#501) is 4.1 miles north of the project area. The project area overlaps SSHCP modeled foraging habitat for this species.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
Fish				
green sturgeon - southern DPS *Acipenser medirostris pop. 1*	Federal: T State: None CDFW: SSC SSHCP: No	Anadromous fish found mostly from inshore waters to 200 feet, primarily in the seawater and mixing zones of bays and estuaries. In estuaries, they concentrate in deep areas with soft bottoms and move into intertidal areas to feed at high tides.	Found in the ocean from the Bering Sea, Alaska, as far south as Ensenada, Mexico; they frequent estuaries and bays from British Columbia, Canada, to Monterey Bay, California, and river mouths from the Skeena River, British Columbia, to the Sacramento River, California. They spawn only in Oregon's Rogue River and the Klamath and Sacramento River systems in California	No potential to occur. Suitable stream or marine habitats are not present in the project area. The closest CNDDB record (#7) is 8.9 miles west of the project area.
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	Federal: T State: None CDFW: SSC SSHCP: No	Cool, clear streams with abundant cover and well-vegetated banks, with relatively stable flows. Pool and riffle complexes and cold gravelly streambeds for spawning.	Populations in the Sacramento and San Joaquin rivers and their tributaries.	No potential to occur. Suitable riverine habitat is not present in the project area. The closest CNDDB record (#24) is 4.0 miles southeast of the project area in the Consumnes River.
Sacramento splittail *Pogonichthys macrolepidotus*	Federal: None State: None CDFW: SSC SSHCP: No	Aquatic; estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes.	No potential to occur. Suitable river or lake habitat is not present in the project area. The closest CNDDB record (#1) is 8.8 miles west of the project area in the Sacramento River.
longfin smelt - San Francisco Bay-Delta DPS *Spirinchus thaleichthys pop. 2*	Federal: E State: T CDFW: None SSHCP: No	Aquatic; found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15–30 ppt but can be found in completely freshwater to almost pure seawater.	Found along the Pacific Coast, from Alaska to California.	No potential to occur. Suitable estuary habitat is not present in the project area. The closest CNDDB record (#14) is 8.7 miles west of the project area.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
Birds				
Cooper's hawk *Accipiter cooperii*	Federal: None State: None CDFW: WL SSHCP: Yes	Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently. Hunts in broken woodland and habitat edges. Nesting and foraging usually occur near open water or riparian vegetation. Frequents landscapes where wooded areas occur in patches and groves.	A breeding resident throughout most of California.	Potential to occur. Potentially suitable nesting habitat is present in the mixed riparian woodland in the project area. The closest CNDDB record (#66) 400 feet from the project area. The project area overlaps with nesting and foraging SSHCP modeled habitat for this species.
tricolored blackbird *Agelaius tricolor*	Federal: None State: T CDFW: SSC SSHCP: Yes	Highly colonial. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Most numerous in the Central Valley and vicinity. Generally endemic to California.	Potential to occur. No nesting habitat occurs in the Project but may occur in the surrounding area. Valley grassland and vernal pools provide potentially suitable foraging (nonbreeding) habitat for this species. A CNDDB (#300) is 0.1 miles to southwest of the project area. The project area overlaps with SSHCP modeled nesting and foraging habitat for this species.
golden eagle *Aquila chrysaetos*	Federal: None State: None CDFW: FP, WL SSHCP: No	Rolling foothills, mountain ranges, sage-juniper flats, and desert. Nests on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grassland, chaparral, and oak woodland with plentiful medium and large-sized mammals.	Foothills and mountains throughout California; uncommon nonbreeding visitor to lowlands such as the Central Valley; ranges from sea level to around 11,500 feet.	No potential to occur. The project is out of the range for nesting eagles. While grasslands generally provides foraging habitat, this species typically avoids developed areas. The closest CNDDB record (#135) reported a golden eagle foraging 4.9 miles north of the project.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
burrowing owl *Athene cunicularia*	Federal: None State: CE CDFW: SSC SSHCP: Yes	Open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent on burrowing mammals, most notably, the California ground squirrel, for underground nests.	Resident throughout California in suitable habitat.	Potential to occur. No nesting habitat occurs in the Project but may occur in the surrounding area. Valley grassland provides potentially suitable marginal foraging habitat, however the routine discing/tilling of this habitat likely limits rodent population and the prey base for this species. The closest CNDDB record (#1,024) is 2.7 miles northeast of the project area. The project area overlaps with SSHCP modeled nesting habitat for this species.
ferruginous hawk *Buteo regalis*	Federal: None State: None CDFW: WL SSHCP: Yes	Open terrain in plains and foothills where ground squirrels and other prey are available; breed in open countryside with open, level, or rolling prairies; prefer arid, semiarid, and grassland/sagebrush habitat; avoid high elevations, forest interiors, narrow canyons, and cliff areas.	Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, including the Modoc Plateau, Central Valley, and Coast Ranges, east-ward to the Sierra Nevada foothills, south-eastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County.	Potential to occur. Valley grassland habitat in the project area is potentially suitable foraging (nonbreeding) habitat. The closest CNDDB record (#31) is 4.7 miles north of the project area. The project area overlaps with SSHCP modeled foraging habitat for this species.
Swainson's hawk *Buteo swainsoni*	Federal: None State: T CDFW: None SSHCP: Yes	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields supporting rodent populations.	Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert.	Potential to occur. Scattered large trees and mixed riparian woodland (nesting habitat) with surrounding valley grassland (foraging habitat) in the project area is potentially suitable habitat for this species. The closest CNDDB record (#1,678) is 0.6 miles southwest of the project area. The project area overlaps SSHCP modeled foraging habitat for this species. SSHCP modeled nesting habitat overlaps the project area in the southeast corner where the mixed riparian woodland occurs.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
Northern harrier *Circus hudsonius*	Federal: None State: None CDFW: SSC SSHCP: Yes	Grasslands, meadows, marshes, and seasonal and agricultural wetlands/fields; prefer open habitats with adequate vegetative cover.	Occurs throughout lowland California. Has been recorded in fall at high elevations ranging from near sea level to at least 9,000 feet in Mono County; largely within coastal lowlands from Lake Earl in Del Norte Couty to Bodega Head in Sonoma County, but also inland at Lake Berryessa in Napa County.	Potential to occur. The valley grassland provides potentially suitable nesting and foraging habitat for this species. The vernal pool is also suitable foraging habitat for this species. The closest CNDDB record (#65) is 17.3 miles to the southwest of the project area. The project area overlaps with SSHCP modeled nesting and foraging habitat for this species.
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Federal: T State: E CDFW: None SSHCP: No	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Valley, foothill, and desert riparian habitats in scattered locations in California.	No potential to occur. Suitable riparian habitat doies not occur in the Project or surrounding area. The mixed riparian woodland. The closest CNDDB record (#194) is 6.7 miles northwest of the project area and is reported as extripated due to development.
white-tailed kite *Elanus leucurus*	Federal: None State: None CDFW: FP SSHCP: Yes	Open grasslands, meadows, or marshes for foraging, close to dense-topped trees for nesting and perching. Nest trees may be growing in isolation, or at the edge of or within a forest.	Coastal and valley lowlands, and cismontane regions of California.	Potential to occur. Potentially suitable nesting and foraging habitat is present in the in the project area. The closest CNDDB record (#28) reported a nest 2.6 miles northwest of the project area in 1990. The project area overlaps with SSHCP modeled foraging habitat for this species.
song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	Federal: None State: None CDFW: SSC SSHCP: No	Moderately dense vegetation to supply cover for nest sites, a source of standing or running water, semi-open canopies to allow light, and exposed ground or leaf litter for foraging. Seems to prefer emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets.	Restricted to California, where it is locally numerous in the Sacramento Valley, the Delta, and northern San Joaquin Valley.	No potential to occur. No nesting habitat occurs in the Project but may occur in the surrounding area. The closest CNDDB record (#83) is 7.1 miles northwest of the project area.

Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
loggerhead shrike *Lanius ludovicianus*	Federal: None State: None CDFW: SSC SSHCP: Yes	Open country with low vegetation and scattered shrubs or trees, included agricultral areas, riparian areas, and srublands	A year round resident ot lower elevations in most of California and much of the southern portion of North America. Present in the Sierra Nevada and Cascade Mountain Ranges during migration. Nonbreeding in northern coastal California	Potential to occur. Potentially suitable nesting and foraging habitat is present in the mixed ripariang woodland habitat, valley grassland, and tree habitat of the project area. The closest CNDDB record (#3) is over 40 miles southwest of the project area.
purple martin *Progne subis*	Federal: None State: None CDFW: SSC SSHCP: No	Nests in abandoned woodpecker holes in oaks, cottonwoods, and other deciduous trees in a variety of wooded and riparian habitats. Also nests in vertical drainage holes under elevated freeways and highway bridges or lapsed lava tubes; distributed in in (Redwood) forest and woodland areas at low to intermediate elevations.	Coastal mountains of Humboldt County south to San Luis Obispo County, west slope of the Sierra Nevada, and northern Sierra and Cascade ranges. Absent from the Central Valley except in Sacramento. Isolated, local populations in southern California	Potential to occur. The mixed riparian woodland and trees in the project area provide potentially suitable nesting habitat for this species. The closest CNDDB record (#19) is 8.0 miles northwest of the project area.
bank swallow *Riparia riparia*	Federal: None State: T CDFW: None SSHCP: No	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and the ocean to dig nesting holes.	Riparian and other lowland habitats in California west of the deserts, during the breeding season.	No potential to occur. Suitable nesting habitat (sandy verticle banks) is not present in the project area. The closest CNDDB record (#94) is 10.2 miles northwest of the project area.

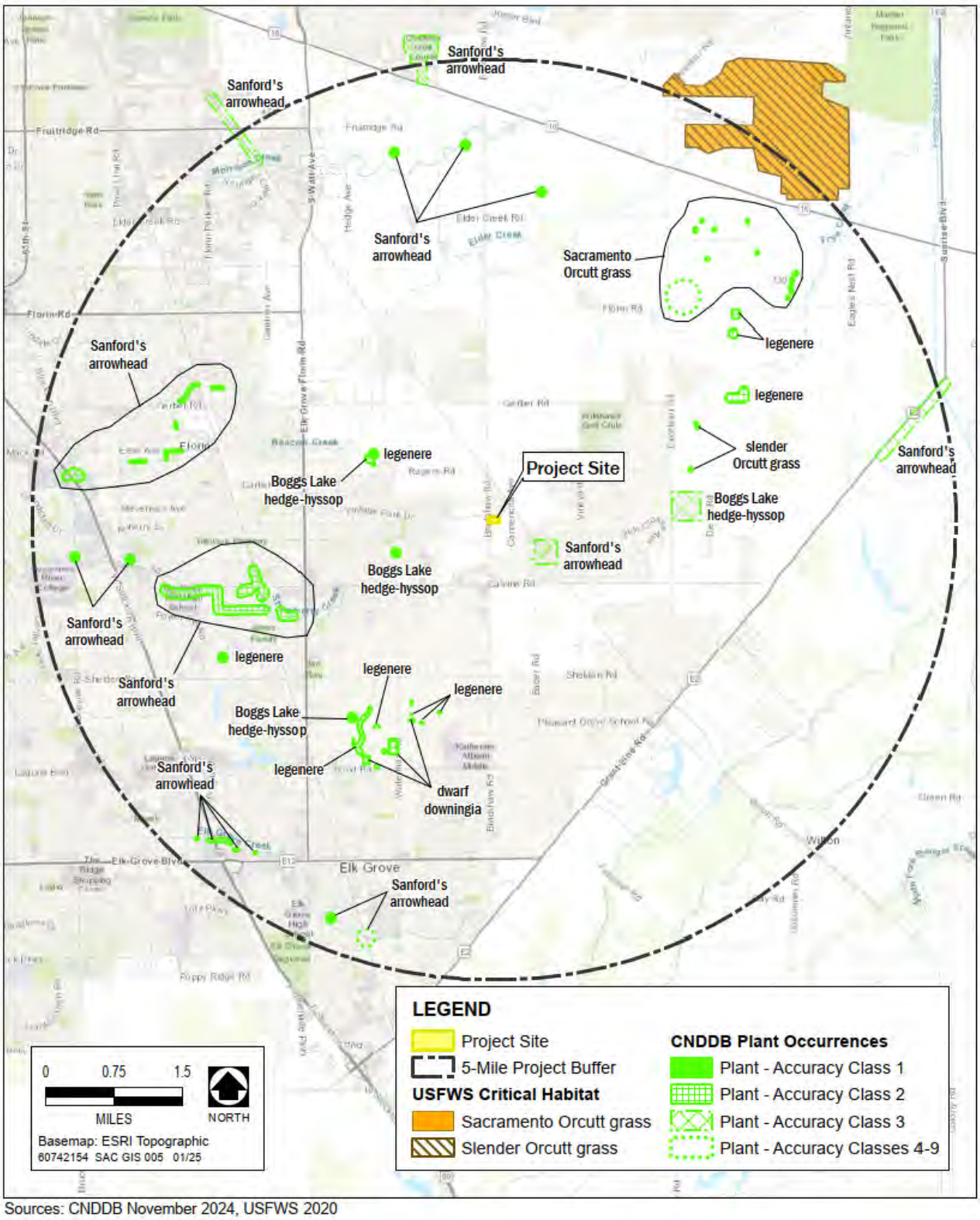
Common and Scientific Name	Special Status	Habitat Requirement	Distribution	Potential to Occur
yellow-headed blackbird *Xanthocephalus xanthocephalus*	Federal: None State: None CDFW: SSC SSHCP: No	Nests in fresh emergent wetland with dense vegetation and relatively deep water, frequently along the borders of lakes and ponds. Forages in emergent marshes/wetland and moist, open areas, especially croplands and muddy shores of lakes.	Breeds east of the Cascade Range and Sierra Nevada, in the Imperial and Colorado River valleys, and in the Central Valley. Occurs primarily as a migrant and summer resident; small numbers winter primarily in the southern Central Valley.	No potential to occur. No nesting habitat occurs in the Project but may occur in the surrounding area. The closest CNDDB record (#9) is 8.9 miles west of the project area along
Mammals				
Western red bat *Lasiurus blossevillii*	Federal: None State: None CDFW: SSC SSHCP: Yes	Roosts in foliage of trees or large shrub in habitat bordering forest, rivers, agricultural areas, and urban areas. Forages in woodlands, low elevation forest, rural and urban areas	This species occurs in western North America and Central America.	Potential to occur. The trees and mixed riparian woodland habitat are potentially suitable roosting habitat and the valley grassaland and vernal pool land covers are potenitally suitable foraging habtiat for this species. The closest CNDDB record (#68) is 18.7 miles southeast of the project area.
American badger *Taxidea taxus*	Federal: None State: None CDFW: SSC SSHCP: Yes	Occurs in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, and mountain meadows near timberline; they require sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground.	Throughout California, except for the humid coastal forests of northwestern California in Del Norte and the northwestern Humboldt Counties	No potential to occur. The routine disturbance of the valley grassland habitat in the project area is not suitable habitat for this species which requires a large prey base of small mammals and suitable burrowing habitat both of which would be negatively impacted by discing. The closest CNDDB record (#73) is 4.2 miles north of the project area. The project area overlaps with SSHCP modeled habitat for this species.

Notes:
CDFW = California Department of Fish and Wildlife
CNDDB = California Natural Diversity Database;
DPS = Distinct Population Segments
ESA = federal Endangered Species Act;
SSHCP =South Sacramento Habitat Conservation Plan

[1] *Regulatory Status Definitions:*
Federal Status Categories
E = Listed as endangered under the Federal Endangered Species Act
T = Listed as threatened under Federal Endangered Species Act
PE = Proposed to be listed as endangered under the Federal Endangered Species Act
PT = Proposed to be listed as threatened under the Federal Endangered Species Act
California State Status Categories
E = Listed as endangered under California Endangered Species Act
T = Listed as threatened under California Endangered Species Act
CE = Candidate for listing as endangered under California Endangered Species Act
Sources: CDFW 2025a; Xerces 2025
California Department of Fish and Wildlife (CDFW) Categories
SSC = Species of Special Concern
FP = Fully Protected
WL = Watch List (does not indicate special-status)
SSHCP Categories
Yes = Species is covered under the South Sacramento Habitat Conservation Plan.
No = Species is not covered under the South Sacramento Habitat Conservation Plan.

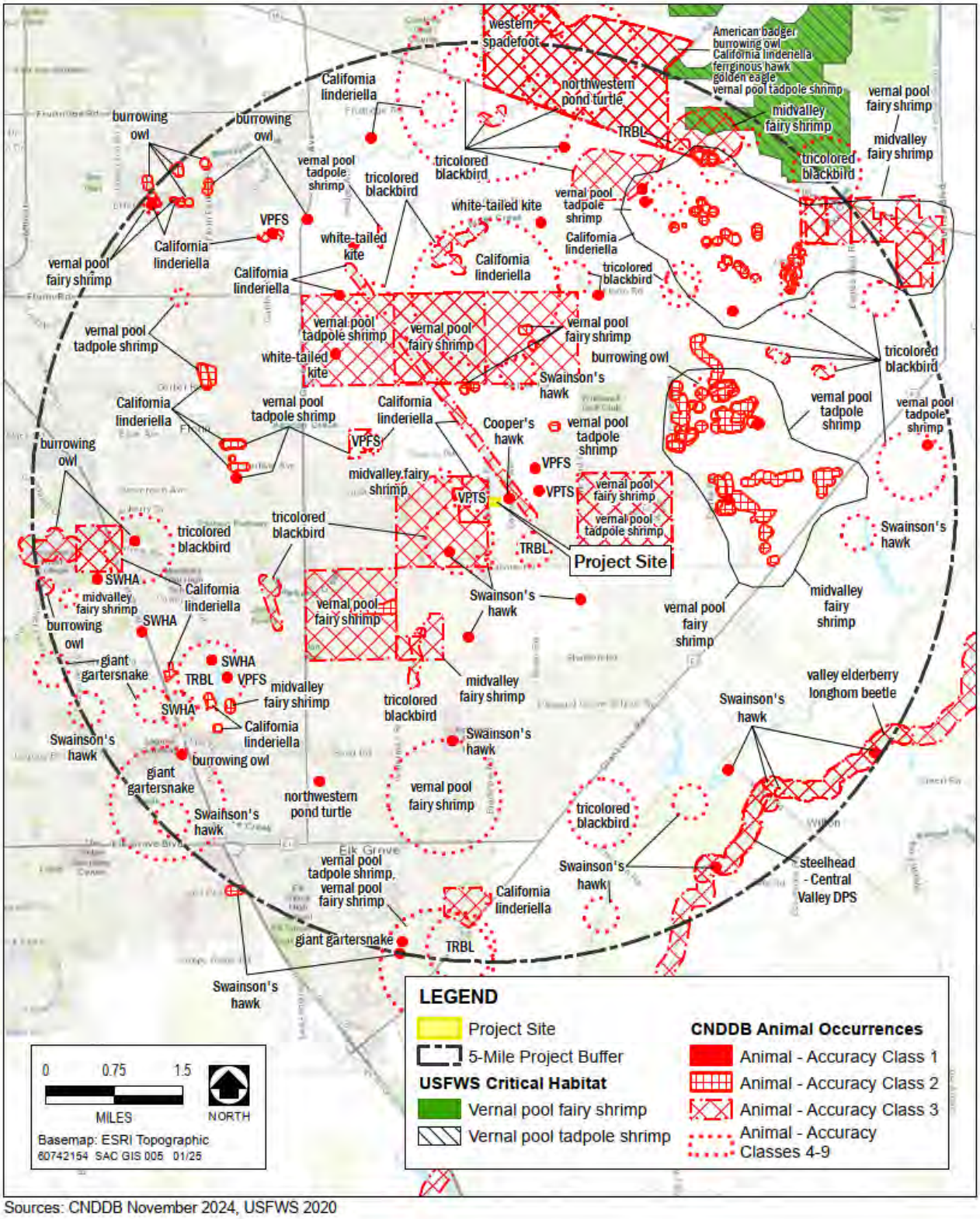
[2] *Potential for Occurrence:*
No potential to occur: *The project area is outside the species' range or does not support suitable habitat for this species.*
Potential to occur: *The project area supports suitable habitat for the species and present and recorded occurrences and there is an occurrence record(s) of the species present in the nearby vicinity.*

Plate IS-12: CNDDB Plants and USFWS Critical Habitat



Sources: CNDDB November 2024, USFWS 2020

Plate IS-13: CNDDB Wildlife and USFWS Critical Habitat



Sources: CNDDB November 2024, USFWS 2020

- Cooper's hawk (*Accipiter cooperii*): SSHCP modelled habitat
- Tricolored blackbird (*Agelaius tricolor*): State listed as Threatened, California Species of Special Concern, SSHCP modelled habitat
- Burrowing owl (*Athene cunicularia*): State Candidate for listing, California Species of Special Concern, SSHCP modelled habitat
- Ferruginous hawk (*Buteo regalis*): SSHCP modelled habitat
- Swainson's hawk (*Buteo swainsoni*): State listed as Threatened, SSHCP modelled habitat
- Northern harrier (*Circus hudsonius*): California Species of Special Concern, SSHCP modelled habitat
- Loggerhead shrike (*Lanius ludovicianus*): California Species of Special Concern, SSHCP modelled habitat
- Purple martin (*Progne subis*): California Species of Special Concern
- Western red bat (*Lasiurus blossevillii*): California Species of Special Concern, SSHCP modelled habitat

REGULATORY SETTING

FEDERAL REGULATIONS

FEDERAL ENDANGERED SPECIES ACT

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the

injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

STATE REGULATIONS

STATE ENDANGERED SPECIES ACT

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

CALIFORNIA FISH AND GAME CODE, SECTION 3503.5 – RAPTOR NESTS

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

LOCAL

COUNTY OF SACRAMENTO GENERAL PLAN

Sacramento County has identified the value of its native and landmark trees and has adopted measures for their preservation. The Tree Ordinance (Chapter 19.04 and 19.12 of the County Code) provides protections for landmark trees and heritage trees. The County Code defines a landmark tree as "an especially prominent or stately tree on any land in Sacramento County, including privately owned land" and a heritage tree as "native oak trees that are at or over 19"DBH." Chapter 19.12 of the County Code, titled Tree Preservation and Protection, defines native oak trees as valley oak, interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), or oracle oak (*Quercus morehus*) and states that "it shall be the policy of the County to preserve all trees possible through its development review process." It should be noted that to be considered a tree, as opposed to a seedling or sapling, the tree must have a DBH of at least 6 inches or, if it has multiple trunks of less than 6 inches each, a combined DBH of 10 inches. The Sacramento County General Plan Conservation Element policies CO-138 and CO-139 also provide protections for native trees:

> CO-138. Protect and preserve non-oak native trees along riparian areas if used by Swainson's Hawk, as well as landmark and native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5 feet above ground.
>
> CO-139. Native trees other than oaks, which cannot be protected through development, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.

The Sacramento County General Plan Conservation Element also provides protections for non-native trees:

> CO-145. Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy shall be calculated using the 15-year shade cover values for tree species.CO-146. If

new tree canopy cannot be created onsite to mitigate for the non-native tree canopy removed for new development, project proponents (including public agencies) shall contribute to the Greenprint funding in an amount proportional to the tree canopy of the specific project.

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN (SSHCP)

The SSHCP is a regional approach to addressing development, habitat conservation, and agricultural lands within the south Sacramento County region, including the cities of Galt and Rancho Cordova. The specific geographic scope of the SSHCP includes U.S. Highway 50 to the north, the Sacramento River levee and County Road J11 (connects the towns of Walnut Grove and Thornton, it is known as the Walnut Grove-Thornton Road) to the west, the Sacramento County line with El Dorado and Amador counties to the east, and San Joaquin County to the south. The SSHCP Project area excludes the City of Sacramento, the City of Folsom, the City of Elk Grove, most of the Sacramento-San Joaquin Delta, and the Sacramento community of Rancho Murieta.

The SSHCP covers 28 different species of plants and wildlife, including 10 that are state and/or federally-listed as threatened or endangered. The SSHCP has been developed as a collaborative effort to streamline permitting and protect covered species habitat.

On May 15, 2018, the Final SSHCP and EIS/EIR was published in the federal Register for a 30-day review period. Public hearings on the proposed adoption of the final SSHCP, final EIS/EIR, final Aquatic Resources Plan (ARP), and final Implementation Agreement (IA) began in August 2018, and adoption by the County occurred on September 11, 2018. The permit was received on June 12, 2019, from the U.S. Fish and Wildlife Service, July 25, 2019, from the U.S. Army Corps of Engineers, and August 20, 2019, from the California Department of Fish and Wildlife.

IMPACT DISCUSSION

a. *Would the project have a substantially 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

SPECIAL STATUS PLANT SPECIES

The project area overlaps with SSHCP modeled habitat for Sanford's arrowhead and may provide suitable habitat for dwarf downingia and legenere. The project would result in permanent impacts to valley grassland and vernal pool habitat. These land covers are potentially suitable habitat for special-status plant species and therefore, if special-status plant species occur in the project area, they could be directly impacted by project activities. In temporary impact areas, direct impacts may occur through trampling, crushing, burying, and removal of seedbank. The project may also indirectly impact special-status plant species by changing the hydrology of the site or reduced plant vigor from potential construction generated fugitive dust from site preparation and grading. Impacts on special-status plant species are **Potentially Significant**.

To mitigate for potential impacts associated with special-status species and biological communities, the project will implement **Mitigation Measure BIO-1**, which includes participation in the SSHCP for its mitigation requirements. As a result, the project will implement SSHCP **Avoidance and Minimization Measures BIO-PLANT-1 (Rare Plant Surveys) and BIO-PLANT-**

2 (Rare Plant Protection), as described in detail in Appendix B. Therefore, impacts on special status-plants that may occur in the project area will be **Less than Significant with Mitigation.**

VERNAL POOL INVERTEBRATES (VERNAL POOL FAIRY SHRIMP, MIDVALLEY FAIRY SHRIMP, AND VERNAL POOL TADPOLE SHRIMP)

The project area overlaps with SSHCP modeled habitat for vernal pool fairy shrimp, midvalley fairy shrimp, and vernal pool tadpole shrimp and includes vernal pools which provide suitable habitat for these species. The project would result in permanent impacts to vernal pool habitat. Potential direct impacts from construction activities include habitat destruction and water quality degradation. Vernal pools are seasonal wetlands that provide critical habitat for these species, and construction activities, such as grading, excavation, and drainage alterations, can destroy or significantly alter these delicate habitats. The loss of the shallow, ephemeral pools that these crustaceans rely on for breeding can result in population declines or local extinctions. Additionally, sedimentation, soil compaction, and contamination from construction runoff can degrade water quality, affecting the survival of crustacean eggs and larvae. The disruption of hydrology, through changes in water flow or the destruction of seasonal inundation patterns, can also affect the timing and persistence of vernal pools. Impacts on special-status vernal pool invertebrates are **Potentially Significant**.

The SSHCP conservation strategy is implementing a Preserve System approach which permits impacts and development in the Urban Development Area and prioritizes larger, interconnected habitat to maintain ecosystem processes necessary for conserving vernal pool species and allowing for protection, monitoring, management, and enhancement of vernal pool ecosystems.

Potential project impacts to vernal pool fairy shrimp, midvalley fairy shrimp, and vernal pool tadpole shrimp from the proposed project will be mitigated through the SSCHP Development Fee or land dedication prior to the initiation of project disturbance activities, and as described below in **Avoidance and Minimization Measure BIO-VP-1 Vernal Pool Habitat**. Therefore, impacts on special-status vernal pool invertebrates will be **Less than Significant with Mitigation**.

WESTERN POND TURTLE

The project area overlaps with SSHCP modeled habitat for western pond turtle (upland habitat). Potential direct impacts to western pond turtle from construction activities in their upland habitat includes habitat destruction and disturbance. Construction activities such as land grading, excavation, and vegetation removal can directly impact the turtles' nesting and foraging areas. The removal of dense vegetation and shrubs may eliminate important cover for shelter and protection from predators. Additionally, the construction of roads or development of land near upland habitats can fragment their movement corridors, making it harder for the turtles to access suitable nesting sites, basking areas, and water sources. Heavy equipment and vehicle traffic may cause direct injury or mortality, especially if turtles are displaced during active construction periods. Disruption of the soil structure could also affect nesting success by making it more difficult for females to dig nests or find appropriate sites for egg-laying. Indirect potential impacts on western pond turtle include aquatic habitat degradation associated with runoff of sediment and contaminants and construction and operation related noise impacts. Noise and vibration generated from construction activities could interfere with hatching or mating calls, as well as contribute to an overall increase in stress resulting in a degradation in overall health and reproduction. Impacts on western pond turtle from project implementation are **Potentially Significant**.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-WPT 1 through 9**, as applicable, would avoid and minimize potential project impacts on western pond turtle by avoiding the western pond turtle nesting period, and by implementing avoidance measures based on information from pre-construction surveys. Therefore, potential project impacts on western pond turtles will be **Less than Significant with Mitigation**.

GIANT GARTER SNAKE

The project area overlaps with SSHCP modeled habitat for giant garter snake upland habitat. Potential direct impacts on giant garter snake. from construction activities include habitat destruction and direct mortality. Construction activities such as grading, filling, or altering water channels can result in the loss of wetland and aquatic habitats, which are essential for the snake's foraging and shelter needs. Additionally, heavy equipment operation, excavation, or vehicle traffic within or near occupied habitats can cause direct injury or mortality. Construction may also disrupt the snake's movement corridors, preventing access to necessary wetland and upland areas for thermoregulation, foraging, and overwintering. The loss of vegetation cover can increase the risk of predation if snakes are displaced into more exposed areas. Potential indirect impacts include habitat loss from project development, habitat degradation associated with project disturbance, and runoff of sediment and contaminants. Project impacts on giant garter snake are **Potentially Significant**.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-GGS 1 through 8**, as applicable, would avoid and minimize potential project impacts on giant garter snake by following season restrictions, monitoring when work will be done in or within 300 feet of aquatic habitat, avoiding giant garter snake entrapment, giant garter snake encounter buffer and protocol, and post construction restoration. Therefore, project impacts on giant garter snake will be **Less than Significant with Mitigation**.

WESTERN SPADEFOOT

The project area overlaps with SSHCP modeled habitat for western spadefoot upland habitat. Potential direct impacts on Western spadefoot toad in its upland habitat from construction activities include habitat destruction, fragmentation, and disturbance. Construction activities such as grading, excavation, and vegetation removal can directly degrade or eliminate important upland habitats used by the toad for foraging, shelter, and burrowing. Western spadefoots rely on areas of loose, sandy or loamy soil to create burrows, where they seek refuge during dry periods. If these habitats are disturbed or compacted by construction activities, the toads may lose critical shelter and be exposed to higher predation risks or unfavorable environmental conditions. Additionally, construction near upland habitats may disrupt migration routes between breeding sites and burrowing locations, preventing the toads from accessing suitable habitats for various life stages. The removal of native vegetation can also reduce available food resources. Project impacts on western spadefoot toad are **Potentially Significant**.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-WS 1 through 6**, as applicable, would avoid and minimize potential project impacts on western spadefoot by following season restrictions, installation of exclusion fencing, monitoring, avoiding entrapment, and a protocol for if a western spadefoot is encountered during project construction. Therefore, project potential impacts on western spadefoot will be **Less than Significant with Mitigation.**

SWAINSON'S HAWK

The project area overlaps with SSHCP modeled foraging and nesting habitat for Swainson hawk. Permanent impacts are expected to occur within Swainson's hawk foraging habitat through removal of grassland habitat. Potential direct impacts on Swainson's hawk from construction activities would result from nest disturbance or destruction, which can lead to nest abandonment, egg loss, or reduced chick survival. If construction occurs during the breeding season noise, vibration, and human presence can cause adult hawks to leave their nests, exposing eggs or young to predation and environmental stress. Additionally, tree removal or habitat alteration could directly eliminate nesting sites, forcing the hawks to relocate, which may reduce reproductive success. Project impacts on Swainson's Hawk from removal of foraging habitat and potential breeding trees are **Potentially Significant.**

Implementation of SSHCP **Avoidance and Minimization Measures BIO-SWHA 1 through 4**, as applicable, would avoid and minimize potential project impacts on Swainson's hawks by conducting nesting bird surveys and providing protocol for nest monitoring. Therefore, project impacts on Swainson's hawk will be **Less than Significant with Mitigation.**

BURROWING OWL

The project area overlaps with SSHCP modeled habitat for burrowing owl. Permanent impacts are expected to occur within burrowing owl habitat through the removal of grassland habitat. Potential direct impacts on burrowing owl from construction activities could include nest disturbance or destruction, which can lead to nest abandonment, egg loss, or reduced chick survival. If construction occurs during the breeding season noise, vibration, and human presence can cause adult owls to leave their nests, exposing eggs or young to predation and environmental stress. Additionally, burrow collapse or removal and habitat alteration could directly eliminate nesting sites, forcing the owls to relocate, which may reduce reproductive success. Project impacts on burrowing owl are **Potentially Significant**.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-WBO 1 through 7**, as applicable, would avoid and minimize potential project impacts on burrowing owls by conducting wintering and nesting season surveys, avoidance guidelines, and providing protocol for nest monitoring. Therefore, project impacts on burrowing owls will be **Less than Significant with Mitigation.**

COOPER'S HAWK, NORTHERN HARRIER, LOGGERHEAD SHRIKE, WHITE-TAILED KITE AND FERRUGINOUS HAWK

The project area overlaps with SSHCP modeled habitat for Cooper's hawk, northern harrier, loggerhead shrike, white tailed kite, and ferruginous hawk (raptors). Potential direct impacts on these raptors from construction activities could result from nest disturbance or destruction, which can lead to nest abandonment, egg loss, or reduced chick survival. If construction occurs during the breeding season noise, vibration, and human presence can cause adult raptors to leave their nests, exposing eggs or young to predation and environmental stress. Additionally, tree removal or habitat alteration could directly eliminate nesting sites, forcing the raptors to relocate, which may reduce reproductive success. Removal of grassland would result in the loss of foraging habitat for these species. Project impacts on raptors are **Potentially Significant.**

Implementation of SSHCP **Avoidance and Minimization Measures BIO-RAPTOR 1 through 4**, as applicable, would avoid and minimize potential project impacts on raptors by conducting

nesting season surveys, avoidance guidelines, and providing protocol for nest monitoring. Therefore, project impacts on raptors will be **Less than Significant with Mitigation**.

TRICOLORED BLACKBIRD

The entire project area overlaps with SSHCP modeled foraging and nesting habitat for tricolored blackbird. Permanent impacts are expected to occur within the tricolored blackbird nesting and foraging habitat. Potential direct impacts on tricolored blackbird from construction activities is nest disturbance or destruction, which can lead to nest abandonment, egg loss, or reduced chick survival. If construction occurs during the breeding season noise, vibration, and human presence can cause adult blackbirds to leave their nests, exposing eggs or young to predation and environmental stress. Additionally, vegetation removal or habitat alteration could directly eliminate nesting sites, forcing the blackbirds to relocate, which may reduce reproductive success. The impacts discussed above are **Potentially Significant** to tricolored blackbird.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-TCB 1 through 4**, as applicable, would avoid and minimize potential project impacts on tricolored blackbirds by conducting nesting season surveys, avoidance guidelines, and providing protocol for nest monitoring. Therefore, project impacts on tricolored blackbirds will be **Less than Significant with Mitigation.**

NESTING BIRDS

The project area contains habitats which have the potential to provide nesting habitat to avian species which are not Covered Species under the SSHCP but are covered under the Migratory Bird Species Act (MTBA). Permanent impacts are expected to occur as valley grasslands, vernal pools, and the large trees in the project area will be removed. If project implementation occurs during the bird breeding season (generally February 1 through September 30), active nests may be present in vegetation slated for removal. Potential direct impacts on nesting birds from construction activities include nest disturbance or destruction, which can lead to nest abandonment, egg loss, or reduced chick survival. If construction occurs during the breeding season noise, vibration, and human presence can cause adult birds to leave their nests, exposing eggs or young to predation and environmental stress. Additionally, vegetation removal or habitat alteration could directly eliminate nesting sites, forcing the birds to relocate, which may reduce reproductive success. Project Impacts on nesting birds covered under the MTBA are **Potentially Significant**.

Implementation of SSHCP **Mitigation Measure BIO-2,** as applicable, would avoid and minimize potential project impacts on nesting birds by conducting nesting season surveys, avoidance guidelines, and providing protocol for nest monitoring. Therefore, project potential direct and indirect impacts to nesting birds will be **Less than Significant with Mitigation**.

WESTERN RED BAT

The project area overlaps with SSHCP modeled roosting and foraging habitat for western red bat (bat). Permanent impacts from tree removal are expected to occur. Potential direct impact on western red bats from construction activities include roost disturbance or destruction, which can result in habitat loss, injury, or mortality. These bats roost in the foliage of trees, particularly in riparian areas and mature woodlands, making them highly vulnerable to tree removal. If roosting individuals are present during vegetation clearing, they may be injured or killed. Additionally, displacement from suitable roosting sites can increase predation risk and cause physiological

stress, disrupting their normal foraging and resting behavior. Noise, vibration, and increased human activity may further contribute to habitat degradation and reduced survival. Project impacts on western red bat are **Potentially Significant**.

Implementation of SSHCP **Avoidance and Minimization Measures BIO-BAT 1 through 4**, as applicable, would avoid and minimize potential project impacts on western red bats by requiring preconstruction surveys during the winter hibernaculum season (November 1 through March 31) in the project area and a 300-foot buffer, buffers to active winter hibernaculum sites, and eviction methods for non-hibernaculum and non-maternity roosts. Therefore, project impacts on western red bats will be **Less than Significant with Mitigation**.

b. Would the project 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

California natural communities are categorized by CDFW and partner organizations, such as CNPS, based on vegetation type classification, and are ranked using the same system to assign global and state rarity ranks for plant and animal species in the CNDDB. Natural communities that are State (S) ranked S1–S3 are considered sensitive natural communities by CDFW, to be addressed in the environmental review processes. Riparian habitat is defined separately in the context of Section 1600 of the California Fish and Game Code. According to guidance provided in A Field Guide to Lake and Streambed Alteration Agreements: Section 1600 Fish and Game Code (CDFG 1994), the outer edge of riparian vegetation is a reasonable and identifiable boundary for the lateral extent of a stream, the protection of which should result in preserving the fish and wildlife at risk within a stream or drainage, and therefore may constitute the limits of CDFW jurisdiction along waterways. The mixed riparian woodland canopy that overlaps the southeast corner of the project area conforms to the vegetation alliance valley oak riparian forest and woodland, which is has a state rarity rank of S3 (CNPS 2025a) and is considered a sensitive natural community. It also meets the CDFW Section 1600 definition of riparian vegetation.

The mixed riparian woodland is outside of the project limit of impacts and will not be directly impacted by the project. This impact is **Less Than Significant.**

To avoid indirect impacts on riparian habitat, the project will implement the following SSHCP AMMs to avoid and minimize potentially indirect project impacts to streams and creeks:

Avoidance and Minimization Measure BIO-STREAM-1 (Laguna Creek Wildlife Corridor): A 150-foot setback measured from the top of the bank on both sides of the stream will be applied to Laguna Creek within the Urban Development Area (minimum 300-foot corridor width). If trails are located within the Laguna Creek Wildlife Corridor, the nearest edge of the trail will be located at least 80 feet from the top of the bank.

Implementation of **Avoidance and Minimization Measure BIO-STREAM-1** would avoid and minimize potential project indirect impacts by requiring a 150-foot setback measured from the top of the bank. Therefore, project indirect impacts on sensitive natural communities will be **Less than Significant with Mitigation.**

c. Would the project 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?

Potentially jurisdictional wetlands were observed during the reconnaissance survey and are mapped as the vernal pool land cover. Three vernal pools were observed in the project area and one (middle) appears to have been modified based the review of historical aerial imagery (Google Earth 2025). The vernal pools are depressional features were supporting water during the site visit, as well as seedlings of vernal pool buttercup, a plant that typically occurs in wetlands (e.i. obligate hydrophytic plant species). The three vernal pool features are potentially jurisdictional Waters of the State. Because these features are isolated, they are not anticipated to be potentially jurisdictional Waters of the U.S.

One other water feature, a roadside ditch, occurs on the western boundary of the project area. It is a manmade feature that was excavated in uplands to drain the area and therefore is not anticipated to be a potentially jurisdictional aquatic resource.

Project related activities will occur in the vernal pool land cover, therefore a formal wetland delineation should be conducted consistent with agency standards, the SSHCP Aquatic Resource Program (ARP), and a report should be prepared to support project permitting including an accurate quantification of project impacts.

Any direct impact to a vernal pool (e.g. grading) will permanently impact the entire vernal pool, even if only a portion of the pool is modified. Similarly, vernal pools rely on the surrounding valley grassland habitat to support their hydrology and provide a complex community structure. The proposed project will directly impact approximately all vernal pool habitat present in the project area, 0.3 acres based on current mapping (please refer to Table IS-5 Project Land Cover and Proposed Impacts and Plate IS-8 Project Impact to Land Covers in Section V. Biological Resources, Land Covers). The direct impacts of the project will result in a complete loss of all vernal pool habitat in the project area. Project impacts on vernal pools are **Potentially Significant**.

The SSHCP conservation strategy is implementing a Preserve System approach which permits impacts and development in the Urban Development Area and prioritizes larger, interconnected habitat to maintain ecosystem processes necessary for conservating vernal pool habitats, their associated species, and allowing for protection, monitoring, management, and enhancement of vernal pool ecosystems. Per the SSHCP the following vernal pool mitigation shall be implemented:

Avoidance and Minimization Measure BIO-VP-1 Vernal Pool Habitat. Per the SSHCP ARP, impacts to vernal pools will be mitigated at a ratio of at least 3:1, where a minimum of 1:1 of that mitigation is provided by re-establishment or establishment. The project will mitigate for the project potential impact to vernal pools through the SSCHP Development Fee or land dedication, prior to the initiation of project disturbance activities. Mitigation should utilize the acreage or square feet of vernal pool aquatic resources delineated in the formal wetland delineation for the mitigation ratio.

Implementation of BIO-VP-1 will require potential project impacts to vernal pools and their associated valley grassland upland habitat, to be mitigated through the SSCHP Development Fee or land dedication, prior to the initiation of project disturbance activities. Project impacts to vernal pools will be **Less than Significant with Mitigation**.

d. Would the project 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?

The project area is situated at the interface of urban development and undeveloped grasslands, with a terrestrial connectivity habitat ranking of 4 (Conservation Planning Linkages) as classified by Areas of Conservation Emphasis (CDFW 2023). Historical aerial imagery indicates that much of the valley grassland habitat within the project area undergoes routine discing, which likely reduces its habitat value for many species.

While Laguna Creek and its associated mixed riparian woodland habitat, located southeast of the project area, may serve as a movement corridor for wildlife, the project will not directly impact this habitat. Therefore, the project is not expected to substantially interfere with the movement of native resident or migratory wildlife species, established wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, project impacts to wildlife movements and migration corridors are **Less than Significant**.

e. Would the project adversely affect or result in the removal of native or landmark trees?

Chapter 19.12 of the Sacramento County Code, Tree Preservation and Protection (Tree Protection Ordinance) states that no person shall trench, grade or fill within the dripline of any protected native oak tree, or destroy, kill or remove any protected tree in the designated urban area of the unincorporated area of Sacramento County, on any property, public or private, without a tree permit or unless authorized as a condition of a discretionary project approval by the Board of Supervisors, County Planning Commission, Zoning Board of Appeals, the Zoning Administrator or the Subdivision Review Committee (Sacramento County 2020). Furthermore, the approving body has the authority to adopt mitigation measures as conditions of approval for discretionary projects in order to protect other species of trees, in addition to the native oaks.

There are 12 trees within the project work limits, seven of which are native oak trees. Trees that occur in the mixed riparian woodland land cover are outside of the project work limits, were not accessible during the reconnaissance survey, and were not included in the tree inventory (please refer to Plate **IS**-10, Tree Inventory, in Section V. Biological Resources, Environmental Setting, Land Covers, Trees).

The project will result in the removal of one native valley oak with an 18-inch DBH, resulting in a **Potentially Significant** impact without mitigation. Consistent with General Plan policy CO-138 and the Sacramento County Tree Ordinance, the project proponent will compensate for the loss of this native oak tree through **Mitigation Measure BIO-3**, which requires replacement plantings or in-lieu fees. Additionally, implementation of **Mitigation Measure BIO-4** will protect the six native oaks being retained from impacts during project construction. Therefore, potential project impacts on native or landmark trees will be **Less than Significant with Mitigation**.

f. Would the project conflict with any local policies or ordinances protecting biological resources?

The Conservation Element of the Sacramento County General Plan specifies mitigation for non-native tree canopy impacts by creating equivalent canopy on-site. No non-native trees will be removed as a result of the project, so there will be **No Impact.**

g. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project is covered under the SSHCP, which provides a framework for mitigating impacts on covered species and their habitats. As a result, the project is consistent with the provisions of an adopted Habitat Conservation Plan (HCP) and does not conflict with the SSHCP. Compliance with the SSHCP ensures that appropriate conservation strategies, including habitat preservation, seasonal restrictions, and avoidance measures, are implemented to reduce environmental impacts. Therefore, the project does not conflict with an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved conservation plans and there would be **No Impact**.

ENVIRONMENTAL MITIGATION MEASURES

BIO-1: Participation in the SSHCP

To compensate for potential impacts associated with special-status species and biological communities, the applicant shall obtain authorization through the SSHCP and conform with all applicable Avoidance and Minimization Measures (Appendix B), as well as payment of fees necessary to mitigate for impacts to species and habitat prior to construction.

Construction related activities, special-status species and biological communities include:

- Dwarf downingia (*Downingia pusilla*) CRPR: 2B.2
- Legenere (*Legenere limosa*) CRPR: 1B.1
- Sanford's arrowhead (*Sagittaria sanfordii*): CRPR: 1B.2, SSHCP modelled habitat
- Midvalley fairy shrimp (*Branchinecta mesovallensis*): SSHCP modelled habitat
- Vernal pool fairy shrimp (*Branchinecta lynchi*): Federally listed as Threatened, SSHCP modelled habitat
- Vernal pool tadpole shrimp (*Lepidurus packardi*): Federally listed as Endangered, SSHCP modelled habitat
- Western pond turtle (*Actinemys marmorata*): Proposed for Federal listing as Threatened, California Species of Special Concern, SSHCP modelled habitat
- Giant gartersnake (*Thamnophis gigas*): Federally listed as Threatened, State listed as Threatened, SSHCP modelled habitat
- Western spadefoot (*Spea hammondii*): Proposed for Federal listing as Threatened, California Species of Special Concern, SSHCP modelled habitat
- Cooper's hawk (*Accipiter cooperii*): SSHCP modelled habitat
- Tricolored blackbird (*Agelaius tricolor*): State listed as Threatened, California Species of Special Concern, SSHCP modelled habitat
- Burrowing owl (*Athene cunicularia*): State Candidate for listing, California Species of Special Concern, SSHCP modelled habitat
- Ferruginous hawk (*Buteo regalis*): SSHCP modelled habitat

- Swainson's hawk (*Buteo swainsoni*): State listed as Threatened, SSHCP modelled habitat
- Northern harrier (*Circus hudsonius*): California Species of Special Concern, SSHCP modelled habitat
- Loggerhead shrike (*Lanius ludovicianus*): California Species of Special Concern, SSHCP modelled habitat
- Purple martin (*Progne subis*): California Species of Special Concern
- Western red bat (*Lasiurus blossevillii*): California Species of Special Concern, SSHCP modelled habitat
- Laguna Creek

BIO-2: Migratory Nesting Bird Pre-Construction Surveys, Nest Buffers, and Monitoring:

If project implementation occurs during the bird breeding season (February 1 through September 30), the project would retain a qualified biologist to conduct preconstruction nesting bird surveys no more than 7 days prior to the start of project construction. The survey would determine if active nest sites for any avian species protected under the federal MBTA occur within all project work areas.

If active nests are found within the project footprint, the Third-Party Project Proponent will establish a 50-foot temporary buffer around the active nest. The Third-Party Project Proponent to monitor the nest throughout the nesting season and to determine when the young have fledged. The approved biologist will be on site while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted.

If the approved biologist determines that birds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting birds. If the biologist determines that the nest is at risk, a meeting with the Third-Party Project Proponent, Implementing Entity, and Wildlife Agencies will be held to determine the best course of action to avoid nest abandonment or take of individuals.

BIO-3: Native Oak Tree Removal

The removal of one valley oak (Tree #4 in Plate **IS**-10) shall be compensated for by planting in-kind trees equivalent to the DBH inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. Replacement tree planting shall be completed prior to approval of grading or improvement plans, whichever comes first. A total of 18 inches will require compensation.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1 inch DBH
- one D-pot seedling (40 cubic inches or larger) = 1 inch DBH
- one 15-gallon tree = 1 inch DBH

- one 24-inch box tree = 2 inches DBH
- one 36-inch box tree = 3 inches DBH

Prior to the approval of Improvement Plans or Building Permits, whichever occurs first, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch DBH trees to be preserved
2. Method of irrigation
3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot-deep boring hole to provide for adequate drainage
4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period.
6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches DBH to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained onsite, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.

Native trees <6 inches DBH to be retained onsite shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding (in the case of oak trees), utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an ISA Certified Arborist subject to Environmental Coordinator approval.

If tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per DBH inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

BIO-4: Native Tree Construction Protection

For the purpose of this mitigation measure, a native tree is defined as a valley oak having a DBH of at least 6 inches, or if it has multiple trunks of less than 6 inches each, a combined DBH of at least 10 inches.

With the exception of the tree removed and compensated for through **Mitigation Measure BIO-3**, above, all native trees on the project site, all portions of adjacent off-site native trees which have driplines that extend onto the project site, and all off-site native trees which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.

2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root system.

3. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees.

4. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of the native trees.

5. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the driplines of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.

6. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. Trenching within protected tree driplines is not permitted. If utility or irrigation lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of an ISA Certified Arborist.

7. If temporary haul or access roads must pass within the driplines of oak trees, a roadbed of six inches of mulch or gravel shall be created to protect the root zone. The roadbed shall be installed from outside of the dripline and while the soil is in a dry condition, if possible. The roadbed material shall be replenished as necessary to maintain a six-inch depth.

8. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of oak trees.

9. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the driplines of the oak trees.

10. Tree pruning that may be required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker and in accordance with the American National

Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines".

11. Landscaping beneath the oak trees may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the driplines of the oak trees are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

12. Any fence/wall that will encroach into the dripline protection area of any protected tree shall be constructed using grade beam wall panels and posts or piers set no closer than 10 feet on center. Posts or piers shall be spaced in such a manner as to maximize the separation between the tree trunks and the posts or piers in order to reduce impacts to the trees.

13. For a project constructing during the months of June, July, August, and September, deep water trees by using a soaker hose (or a garden hose set to a trickle) that slowly applies water to the soil until water has penetrated at least one foot in depth. Sprinklers may be used to water deeply by watering until water begins to run off, then waiting at least an hour or two to resume watering (provided that the sprinkler is not wetting the tree's trunk. Deep water every 2 weeks and suspend watering 2 weeks between rain events of 1 inch or more.

VI. CULTURAL RESOURCES

Cultural Resources Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The Area of Potential Effects (APE) for cultural resources is defined as the geographic area where project activities may cause changes in the character or use of historical resources of pre-contact or historic age, if any such properties exist. The land is currently vacant and consists of flat, undeveloped grassland with a few scattered trees. The horizontal APE for the Vineyard Springs Fire Station project measures the extent of the full legal parcel boundary of 4.6 acres. The vertical APE corresponds with the project's maximum area of ground disturbance of 3.5 feet for project-related activities of approximately 1.5 acres of the project area.

NATURAL AND CULTURAL CONTEXT

The project area is situated in the Central Sacramento Valley, which is the northern portion of the greater Central Valley just north of the Sacramento-San Joaquin Delta. Only one soil type is present in the proposed Project area, San Joaquin silt loam, with zero to one percent slopes, and represents the typical alluvium soil of the California Central Valley. The vegetation in the Project area consists of valley grassland and riparian woodland. The closest body of water is Laguna Creek which is approximately 50 feet south of the Project area southern boundary line (Pacific Legacy 2024).

ETHNOGRAPHIC CONTEXT

The project area is sited west of Laguna Creek in the plains between the American and the Cosumnes rivers, at the boundary of the Eastern Miwok and the Nisenan ethnographic territories. This area appears to have been uncertainly attributed as occupied either by Miwok or Nisenan tribes, with different informants reporting different boundaries.

The Nisenan ethnographic southwestern territory traditionally includes the hills between the Cosumnes River and the south fork of the American River. At the mouth of the American River, Nisenan presence extended north and south on the banks of the Sacramento River. The Nisenan political unit was the triblet, each populated with several large villages. The villages or towns in which the Nisenan were organized, were made up of extended family groups of different sizes and led by a Huk (Headman) or Mayan (Headwoman). Valley Nisenan built their villages on low, natural rises along streams or on gentle slopes with southern exposure. Village sizes varied significantly, from less than ten to more than 50 houses. Villages were typically made up of extended family units and ranged from small (10 to 25 people) to large (over 500 people) (Pacific Legacy 2024).

Levy (1978) states that the Plains Miwok inhabited the lower reaches of the Mokelumne and Calaveras River drainages and both banks of the Sacramento River. The uncertainties around the northern border between the Plains Miwok and the Nisenan is first recorded in Barrett (1907). The primary political unit of the ethnographic Miwok was a triblet, an independent nation that controlled its own territory and the natural resources within. Each tribelet established permanent residences with its territory, along with seasonal campsites. Their subsistence was a gathering and hunting economy that revolved around annual rounds of resource procurement, hence the seasonal settlements (Pacific Legacy 2024).

Their dietary staples were acorns, hard seeds, and roots, which were supplemented by fish and game. The primary staples were acorns from the valley oak and game meat; prong horn antelope (*Antilocapra americana*) and tule elk (*Cervus canadensis nannodes*). Plant gathering was seasonally confined from May to August, but hunting was year-round and became the main source of food during winter months when plant resources were scarce. The tool kit for such subsistence was comprised of bow and arrow technology with flaked stone tools including projectile points, knives, and scrapers made from locally sourced chert and obsidian. Additionally, Eastern Miwok used mortars and pestles for the processing of acorns and other resources. They also manufactured both twined and coiled basketry for seed processing, cooking, and storage. They also participated in a widespread east-west trade network that provided social and economic opportunities (Pacific Legacy 2024).

For modern-day tribal cultural context, see the Tribal Cultural Resources chapter.

HISTORICAL CONTEXT

The project area lies in the census-designated place of Vineyard within unincorporated Sacramento County. Historically, the area was part of the Rancho Rio de los Americanos, a 35,521-acre Mexican land grant given to William Leidesdorff in 1844. Located on the flat, open plain of the Sacramento Valley with two intermittent water sources, Laguna and Gerber creeks, seasonal dry farming of hay and grain and grazing activities began in the area as early as the 1850s. With the development of groundwater pumping for irrigation, the land in the region was utilized for more intensive agricultural crops such as vineyards and orchards. The area was named after the "California Vineyards Company," which owned most of the land in the region until 1928. Historical aerial photographs as early as 1947 show the parcel in the Project area, and larger vicinity, has been principally used for agriculture and farming. Multiple buildings and structures including a residence, barns, and corrals were present within the Project APE up to 1993 when a single residential building was extant on the parcel. By the 1990s, the area was characterized as primarily underdeveloped, semi-rural land with scattered residences associated with former vineyards and orchards. In 1995, Sacramento County adopted the Vineyard Springs Comprehensive Planning Program to guide future planning of the Vineyard Urban Growth Area, which largely proposed conversion of agriculture lands to residential use. The planning area is bound on the west by Bradshaw Road, the east by Excelsior Road, the north by Gerber Road, and the south by Calvine Road. Bradshaw Vineyards Village subdivision, located just north of the project area boundary, was developed as a participatory landowner. Between circa 2002-2005 the residential building in the Project area was demolished, which appears to coincide with the construction of Bradshaw Vineyards Village. Today, the parcel in the project area is vacant while much of the planning area has been developed with residential subdivisions (Sacramento County 2000; Pacific Legacy 2024).

RECORDS SEARCH

A search of records for known cultural resources and previous cultural resources studies on file at the North Central Information Center (NCIC) was conducted on August 7, 2023, for the project APE and a one-half-mile buffer.

The cultural resources records searches identified 13 previous studies that have been conducted within a 0.5-mile radius of the APE. Of these, one study included the current APE as part of their reporting S-008544 (Peak 2007). The current project parcel was surveyed utilizing 10-meter transects during a pedestrian field survey with no resources identified. The records search did not identify any previously recorded cultural or built environment resources within the project site.

FIELD SURVEY AND FINDINGS

On August 28, 2023, cultural resources consultants Pacific Legacy conducted a field survey of the full extent of the 4.6-acre project site. The purpose of the survey was to identify cultural resources that may be adversely impacted by ground disturbing activities associated with the Project. Two archaeologists walked parallel transects with 10 meters of separation. Ground visibility was 80 to 100 percent throughout the entire Project area. The topsoil was observed to have been recently disturbed, and the ground was tilled and laid with hay. During the survey, the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, pre-contact ceramics), soil discoloration that might indicate the presence of a pre-contact cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells) or historic debris (e.g., metal, glass, ceramics). A 50-foot diameter depression (less than 5 feet deep)

was observed in the central southern portion of the project site. It is a flat, grassy area with burned wood and burned modern-period glassware present.

No precontact or historic-era archaeological features, artifacts, or new resources were identified. No historic-age built environment resources were identified on the vacant parcel during survey.

IMPACT DISCUSSION

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

As discussed above, the project area contains no historical resources. Therefore, the project would have **No Impact** on the significance of a historical resource pursuant to § 15064.5.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

As discussed above, an NCIC search and a field survey were performed for the project APE. The record search revealed one study covering the project area APE that did not identify any archaeological resources. No precontact or historic-era archaeological resources were identified during the field survey. However, if undiscovered archaeological resources are encountered in the project area during construction, ground disturbance activities could result in a substantial adverse change in the significance of an archaeological resource. Therefore, the project could have a **Potentially Significant** impact on unknown archaeological resources.

Mitigation Measure CUL-1 outlines the required procedure if cultural resources are found during construction, including guidance around stopping work and who to notify. With implementation of Mitigation Measure CUL-1, impacts to cultural resources would be avoided and minimized, reducing the impact to **Less than Significant with Mitigation**.

c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

No evidence of human burials was found during the field survey. However, as the presence of human remains cannot be ruled out, project construction could have a potentially significant impact on unknown human remains.

Mitigation Measure CUL-1 outlines the required procedure if cultural resources are found during construction, including guidance around stopping work and who to notify. With implementation of Mitigation Measure CUL-1, impacts to cultural resources would be avoided and minimized, reducing the impact to **Less than Significant with Mitigation**.

ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measure CUL-1: Inadvertent Discoveries of Cultural Resources

For potential archaeological, or cultural resources discovered during project's ground disturbing activities, work shall be halted until a qualified archaeologist may evaluate the resource.

1. Unanticipated cultural resources. In the event of an inadvertent discovery of cultural resources (excluding human remains) during construction, all work must halt within a 100-

foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

a. Work cannot continue within the 100-foot radius of the discovery site until the archaeologist and/or tribal monitor conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

b. If a potentially eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the County Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

Energy

Energy Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

ENVIRONMENTAL AND REGULATORY SETTING

This section describes the existing conditions and regulatory framework related to energy resources in Sacramento County and surrounding region. Within this section, and most relevant to Sacramento County and the proposed project, the energy resources described are those related to electricity and transportation fuels (primarily gasoline and diesel fuel), and opportunities for energy conservation and use of renewable energy resources.

ELECTRICAL SERVICE AND RESOURCES

Electric services in the project site are provided by the Sacramento Municipal Utility District (SMUD), which has a 900 square mile service area, including most of Sacramento County and small, adjoining portions of Placer and Yolo Counties. In 2022, SMUD provided 10,661,678 megawatt hours (MWh) of electricity to its customers (CEC 2024).

Electricity is generated from a variety of sources, including hydropower, natural-gas- fired generators, renewable resources eligible under the state's Renewable Portfolio Standards (RPS) program (e.g., solar, wind, geothermal, hydroelectric, and bioenergy), and purchases from other energy suppliers. California's RPS requires electricity providers to provide a specified minimum portion of their electricity supply from eligible renewable resources by milestone target years. The RPS requires retail sellers of electricity to serve 60 percent of their electric load with renewable energy by 2030 with interim targets of 44 percent by 2024 and 52 percent by 2027, as well as requiring that all of the state's electricity come from carbon-free resources (not only RPS-eligible ones) by 2045. SMUD currently offers customers the option to purchase up to 100 percent of their electricity from renewable sources through its Greenergy® program. In addition, the proportion of SMUD-delivered electricity for all customers generated from eligible renewable energy sources is anticipated to increase to 100 percent by 2030 based on SMUD's 2030 Zero Carbon Plan (SMUD 2021). The general electrical power mix for SMUD as of 2023 is presented in Table IS-8 below.

Table IS-8: SMUD Electrical Power General Mix, 2023

Energy Source	Percentage (%)
Eligible Renewable[1], Total	45.0
Biomass and Biowaste	3.1
Geothermal	14.7
Eligible Hydroelectric	2.0
Solar	10.9
Wind	14.7
Coal	0.0
Large Hydroelectric	32.6
Natural Gas	21.9
Nuclear	0.3
Other	0.0
Unspecified Power[2]	0.1
Total	**100.0**

Notes:

As defined in Senate Bill 1078, and Senate Bill 1038, which modified the definition of "in-state renewable electricity generation technology," an eligible renewable resource includes geothermal facilities, hydroelectric facilities with a capacity rating of 30 MW or less, biomass and biogas, selected municipal solid waste facilities, photovoltaic, solar thermal, and wind facilities, ocean thermal, tidal current, and wave energy generation technologies.

"Unspecified Power" sources refer to electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

Source: SMUD 2024

Many of the statewide and regional policies and plans developed to reduce GHG emissions, such as the CARB 2022 Scoping Plan, also target reductions in energy use through reduced vehicular travel demand and increased energy efficiency. In addition, new buildings constructed in California must comply with the standards contained in California Code of Regulations (CCR) Title 20, Public Utilities and Energy, which includes regulations for energy conservation and efficiency, and Title 24, California Building Standards, which includes the California Energy Code and California Green Building Standards Code (CALGreen), all of which are designed to increase building energy efficiency and conservation.

TRANSPORTATION-RELATED ENERGY CONSUMPTION

Transportation is the largest energy consuming sector in California, accounting for approximately 42 percent of all energy use in the state. More motor vehicles are registered in California than in any other state, and commute times in California are among the longest in the country (U.S. Energy Information Administration [EIA] 2024a). Transportation fuel has and will continue to diversify in California and elsewhere. While historically gasoline and diesel fuel accounted for nearly all demand, there are now numerous alternative fuel options becoming more market-available, including ethanol, natural gas, electricity, and hydrogen. Currently, despite advancements in alternative fuels and clean vehicle technologies, gasoline and diesel remain the

primary fuels used for transportation in California and California remains the second highest consumer of motor gasoline in the country (EIA 2024a)

IMPACT DISCUSSION

a. *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

CONSTRUCTION-RELATED ENERGY CONSUMPTION

Implementation of the proposed project would increase the consumption of energy for the duration of construction, primarily in the form of fossil fuels (e.g., gasoline, diesel fuel) to power construction vehicles and equipment operating on-site, trucks delivering equipment and supplies to the site, and construction workers driving to and from the site.

Table IS-9 presents the total fuel consumption anticipated for the proposed construction activities. The calculations in Table IS-10 are based on the emissions calculations for proposed construction activities modeled using CalEEMod, as further detailed in 'Air Quality' and 'Greenhouse Gas Emissions' of this Initial Study, and application of the EIA CO_2 emissions coefficients (EIA 2024b) to estimate fuel consumption from project construction activities.

Table IS-9: Modeled Construction Fuel Consumption

Energy Consuming Component	Diesel (gallons)	Gasoline (gallons)
On-site Equipment Use	68,679	0
Off-site On-road Vehicles	3,017	13,642
Total	**71,696**	**13,642**

Notes:

Modeled by AECOM in 2024.

See Appendix A for detailed emissions modeling and energy calculations.

Fuel consumption rates would vary over the duration of construction based on the intensity of construction activities. This includes factors such as the amount and duration of equipment use, as well as the number of vehicle trips and distances traveled during each phase of construction. The proposed construction-related activities and associated equipment use are necessary components of the construction phase of the project. Related fuel consumption would be temporary, ceasing after the completion of construction, and would not represent a significant demand on available energy resources, beyond normal construction fuel usage. Additionally, project construction activities would be conducted in accordance with all applicable laws and regulations, including applicable federal, state, and local laws that are intended to promote efficient utilization of resources, such as CCR Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes. Construction equipment and vehicle activity and related energy consumption would be typical of that associated with construction of the types of land use development in the region and of similar type and scale to the proposed project. The proposed project does not include unusual characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites. Therefore, construction associated with the proposed project would not result in inefficient, wasteful, or unnecessary use of fuel or other

energy sources or conflict with or obstruct implementation of a plan for renewable energy or energy efficiency. This impact would be **Less than Significant**.

OPERATIONAL ENERGY CONSUMPTION

Operational activities would consume energy in the form of electricity and gasoline and diesel fuels. Building energy use associated with operation of the project would include electricity use for heating and cooling systems, lighting, appliances, and water and wastewater conveyance. Gasoline and diesel consumption would be associated with vehicle trips generated by employee personnel vehicles and fire truck trips.

Anticipated electricity consumption for the main fire station building was provided by the applicant team. Electricity demand associated with the supply, distribution and treatment of water and wastewater treatment were estimated using CalEEMod default intensity factors and water consumption estimated by the applicant team. Transportation fuel consumption associated with operational trips was calculated based on the VMT estimates developed in support of this Initial Study, and using the CARB Emission Factor (EMFAC) model version 2021 v.1.0 for an adjusted fleet mix to reflect the anticipated vehicle mix of the proposed project (i.e., employee light duty cars and trucks and heavy-duty fire trucks). Energy consumption was converted to a common energy unit using heat content information for fuels (The Climate Registry 2024), and the conversion rate of 7,532 British thermal units (BTU) per kilowatt hour for electricity. Additional details of operational activities and other input parameters are included in Appendix A.

Table IS-10: Estimated Project Annual Operational Energy Consumption

Operational Activity	Annual Consumption	MMBTU
Fire Station Building Operation[1]	48,197 kWh	363
Emergency Generator	378 gallons diesel	52
Personnel and Fire Truck Vehicle Trips	24,153 gallons diesel	3,333
Personnel and Fire Truck Vehicle Trips	4,799 gallons gasoline	600
Personnel and Fire Truck Vehicle Trips	4,427 kWh	33

Notes: MMBTU = million British thermal units; kWh = kilowatt-hours
Source: Modeled by AECOM in 2024
1 The electricity demand presented in this table include both the electricity associated with the operation of the building, and electricity associated with the supply, distribution and treatment of water and wastewater treatment.

As shown in Table IS-10, vehicle trips associated with future personnel and fire truck trips would represent the greatest operational use of energy associated with the project. Federal and state regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, unnecessary, and inefficient use of energy for transportation. These regulations include the federal Corporate Average Fuel Economy standards adopted by the USEPA and the National Highway Transportation Safety Administration, which sets fuel economy standards for light-duty vehicles (i.e., passenger cars and light trucks) and fuel consumption standards for medium- and heavy-duty trucks and engines. State regulations include the Truck and Bus Regulation, which as of January 1, 2023, requires all diesel-powered vehicles operating in California with a gross vehicle weight rating over 14,000 pounds to have a 2010 or newer engine and emission system, and the Advanced Clean Cars Program, which includes low-emission vehicle standards and sets requirements for the phase in of light-duty zero-emission vehicles by 2035. These regulations

would serve to reduce operational energy consumption associated with the proposed project over time.

The proposed project would receive electrical power from SMUD and would not include natural gas infrastructure. As described above, under "Environmental Setting," the proportion of SMUD-delivered electricity for all customers generated from eligible renewable energy sources is anticipated to increase to 100 percent by 2030 in accordance with the 2030 Zero Carbon Plan. Additionally, the proposed buildings would be constructed to meet all applicable energy efficiency standards at the time of construction and would be required to comply with the current energy performance standards found Title 24 of the California Code of Regulations, including the Green Building Code (Part 11 of Title 24) Building Energy Efficiency Standards.

Therefore, energy consumption associated with operational transportation and building operations would not be inefficient, wasteful, or unnecessary or conflict with or obstruct a state or local plan for renewable energy or energy efficiency and this impact would be **Less than Significant.**

In addition, Mitigation Measure GHG-1 would require project buildings to comply with the current CALGreen Tier 2 standards for electric vehicle ready infrastructure, thereby further reducing energy usage by supporting electric vehicle adoption and reduced reliance on fossil fuels for transportation. This would further support state plans for increased reliance on renewable energy.

Energy efficiency is a possible indicator of environmental impacts. The actual adverse physical environmental effects associated with energy use and the efficiency of energy use are detailed throughout this Initial Study in the environmental topic–specific sections. For example, the use of energy can lead to air pollutant and GHG emissions, the impacts of which are addressed in Air Quality and Greenhouse Gas, respectively, of this Initial Study. There is no physical environmental effect associated with energy use that is not addressed in the environmental topic–specific sections of this Initial Study.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As discussed in a) above, project construction activities would be conducted in accordance with all applicable laws and regulations, including applicable federal, state, and local laws that are intended to promote efficient utilization of resources, such as CCR Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes. Construction equipment and vehicle activity and related energy consumption would be typical of that associated with construction of the types of land use development in the region and of similar type and scale to the proposed project. The proposed project does not include unusual characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites. Therefore, the project would not conflict with or obstruct implementation of a plan for renewable energy or energy efficiency. and this impact is **Less than Significant**.

Environmental Mitigation Measures

None required.

VII. GEOLOGY AND SOILS

Geology and Soils Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

SEISMICITY

Geologists have determined that the greatest potential for surface fault rupture and strong seismic ground shaking is from active faults; that is, faults with evidence of activity during the Holocene epoch (i.e., the last 11,700 years). Surface rupture is the actual cracking or breaking of the ground

surface along a fault during an earthquake, which is generally limited to a linear zone that is only a few yards wide. If surface fault rupture occurs, structures that are located across the fault trace can be torn apart, and pipelines can rupture. The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was created to help reduce the loss of life and property from an earthquake by prohibiting the construction of structures designed for human occupancy across the traces of active faults. The project site is not located within or near a fault designed under the Alquist-Priolo Act, or any other known active or potentially active fault (California Geological Survey [CGS] 2022, Jennings and Bryant 2010).

The project site is situated near the southeastern end of the Sacramento Valley; this area historically has not been seismically active (Jennings and Bryant 2010). Ground shaking—motion that occurs as a result of energy released during faulting—could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the distance to the epicenter, and the character and duration of the ground motion. Earthquake shaking hazards have been calculated by the Working Group on California Earthquake Probabilities by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities. The 2016 map showing the probabilistic Earthquake Shaking Potential for California (Branum et al. 2016) indicates that the project site is rated with a low potential shaking hazard intensity. Regions in the low intensity categories are distant from known, active faults and are projected to experience lower levels of shaking less frequently. The peak horizontal ground acceleration calculated by Geocon Consultants, Inc. (0.29g) as part of the Geotechnical Investigation prepared for the proposed project also indicates that a low level of seismic shaking would be anticipated at the project site (Geocon 2023).

The groundwater table is relatively deep: approximately 90 feet below the ground surface (California Department of Water Resources [DWR] 2023). Groundwater was not encountered at the project site to the maximum depth of 25 feet below the ground surface explored for soil borings as part of the Geotechnical Investigation (Geocon 2023). Furthermore, the site is composed of stable, Pleistocene-age deposits (Wagner et al. 1981); and the project site and the surrounding area are flat. Therefore, liquefaction and landslides do not represent hazards at the site.

SOILS

A review of U.S. Natural Resources Conservation Service (NRCS) soil survey data indicates that the project site is composed of the San Joaquin silt loam (leveled, 0 to 1 percent slopes) soil type. Subsurface soil borings obtained for the Geotechnical Report (Geocon 2023) indicated that the project site soils consist of silty clay, clayey sand, sandy silty clay, and sand. The results of laboratory testing from the soil borings indicated that project site soils are of low to moderate plasticity due to the presence of clay layers (Geocon 2023).

PALEONTOLOGICAL RESOURCES

REGIONAL AND LOCAL GEOLOGY

The project site is located in the southeastern Sacramento Valley. The Sacramento Valley is part of the Great Valley Geomorphic Province, which is a forearc basin composed of thousands of feet of sedimentary deposits that has undergone periods of subsidence and uplift over millions of years. Alluvial deposits outcrop at the surface and extend to a depth of over 1,000 feet, overlying the deeply buried bedrock units in the mid-basin areas of the valley. At the project site, the alluvial deposits are composed of sediments from the Sierra Nevada to the east, which were carried by water and deposited on the valley floor.

Based on a review of geologic mapping prepared by Wagner et al. (1981), the project site is underlain by the Riverbank Formation. This formation is of late Pleistocene age (approximately 130,000–450,000 years Before Present) (Helley and Harwood 1985). The Riverbank Formation is composed of weathered reddish gravel, sand, and silt comprising older alluvial fans and terraces of the American River and other major rivers and streams in the Sacramento Valley (Helley and Harwood 1985).

PALEONTOLOGICAL SENSITIVITY ASSESSMENT CRITERIA

A paleontologically sensitive geologic formation is one that is rated high for potential paleontological productivity (i.e., the recorded abundance and types of fossil specimens, and the number of previously recorded fossil sites) and is known to have produced unique, scientifically important fossils. Exposures of a specific geologic formation at any given project site are most likely to yield fossil remains representing particular species or quantities similar to those previously recorded from that geologic formation in other locations. Therefore, the paleontological sensitivity determination of a rock formation is based primarily on the types and numbers of fossils that have been previously recorded from that formation.

The Society of Vertebrate Paleontology (SVP 2010) established four categories of sensitivity for paleontological resources: high, low, no, and undetermined to guide assessment and mitigation of adverse impacts on paleontological resources. Areas where fossils have been previously found are considered to have a high sensitivity and a high potential to produce fossils. Areas that are not sedimentary in origin and that have not been known to produce fossils in the past typically are considered to have low sensitivity. Areas consisting of high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites) are considered to have no sensitivity. Areas that have not had any previous paleontological resource surveys or fossil finds are considered to be of undetermined sensitivity until surveys are performed. After reconnaissance surveys, a qualified paleontologist can determine whether the area of undetermined sensitivity should be categorized as having high, low, or no sensitivity. In keeping with the Society of Vertebrate Paleontology sensitivity criteria, all vertebrate fossils are generally categorized as being of potentially significant scientific value.

PALEONTOLOGICAL SENSITIVITY ASSESSMENT

A records search of the U.C. Berkeley Museum of Paleontology (UCMP) was performed by AECOM in November 2024; there are no recorded fossil localities within the project site (UCMP 2024).

As noted above, the project site is underlain by the Riverbank Formation. Nine recorded vertebrate fossil localities are in the Sacramento area, including a Teichert Gravel Pit approximately 4 miles north of the project site. These localities have yielded the remains of a Rancholabrean-age mammoth, bison, camel, coyote, horse, Harlan's ground sloth, mammoth, antelope, deer, rabbit, woodrat, fish, mole, mice, squirrel, snake, and gophers, dire wolf, frog, Pacific pond turtle, and the family Anatidae (i.e., ducks, geese, and swans) (Jefferson 1991, UCMP 2024, Kolber 2004, Hilton et al. 2000, Helley and Harwood 1985). Numerous additional vertebrate fossil localities exist from the Riverbank Formation and similar unnamed Rancholabrean-age alluvial sediments in Yolo, San Joaquin, Merced, Stanislaus, Fresno, and Madera counties (UCMP 2024).

Because of the large number of vertebrate fossils that have been recovered from the Riverbank Formation, it is considered to be of high paleontological sensitivity.

IMPACT DISCUSSION

a. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

   i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

The nearest active faults, including those that are classified under the Alquist-Priolo Earthquake Fault Zone Act, are approximately 35 miles southwest in the Coast Ranges and approximately 75 miles east near Lake Tahoe (Jennings and Bryant 2010, CGS 2022). The nearest known fault is the Bear Mountain Fault Zone, approximately 25 miles east of the project site, which is not classified as "active" (Jennings and Bryant 2010). Therefore, hazards from surface fault rupture are unlikely, and there would be **No Impact**.

   ii. *Strong seismic ground shaking?*

As described in threshold a) i) above, the nearest known fault is the Bear Mountain Fault Zone, approximately 25 miles east of the project site, which is not classified as "active" (Jennings and Bryant 2010). The project site has a low potential for strong seismic ground shaking (Branum et al. 2016, Geocon 2023).

Development of the proposed project is required by law to comply with seismic safety standards of the California Building Standards Code (CBC). The CBC philosophy focuses on “collapse prevention,” meaning that structures are designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Based on the seismic design category, the CBC requires an analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also requires that measures to reduce damage from seismic effects be incorporated in structural design. Measures may include ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures.

A site-specific preliminary Geotechnical Investigation (Geocon 2023) has been prepared which contains preliminary engineering and design recommendations related to seismic, soils, and other geologic considerations at the project site. A final site-specific geotechnical report would be prepared according to CBC and County requirements (including County Municipal Code Chapter 16.44 related to grading), which is required to contain appropriate engineering and design recommendations related to seismic, soils, and other geologic considerations at the project site. The final geotechnical report would be submitted to the County for review as part of the applicant’s permit application. The design and construction of all buildings will be required to be in compliance with the CBC (CCR Title 24), which includes implementing the recommendations contained in the geotechnical report to comply with CBC provisions that are specifically designed to prevent the collapse of structures during seismic ground shaking. Therefore, impacts from strong seismic ground shaking would be **Less than Significant**.

iii. Seismic-related ground failure, including liquefaction?

The project site is composed primarily of stable, late Pleistocene-age deposits consisting of the Riverbank Formation (Wagner et al. 1981). The depth to groundwater at the project site is relatively deep—approximately 90 feet below the ground surface (DWR 2023), and site-specific soil borings to a depth of 25 feet did not encounter groundwater. Furthermore, there is a low potential for strong seismic ground shaking (Branum et al. 2016, Geocon 2023). Thus, there is no potential for liquefaction, and there would be **No Impact**.

iv. Landslides?

The project site is flat and is not adjacent to any areas of steep slopes; thus, there is no potential for landslides, and there would be **No Impact**.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Based on a review of NRCS (2024) soil data, the project site consists of the San Joaquin silt loam (leveled, 0 to 1 percent slopes) soil type. This soil type has a low potential for wind erosion, and a moderate water erosion hazard (NRCS 2024).

Project-related construction would involve earthmoving activities throughout the 4.6-acre project site, including soil removal; grading; trenching and pipe installation; installation of building, road, and parking lot foundations; and landscaping. Construction activities during the winter months would expose soils to rain events, which could mobilize loose soil and result soil erosion. Subsequent soil transport during storm events could result in sedimentation both within and downstream of the project site. Furthermore, earthmoving activities during the summer months could result in wind erosion.

However, the project applicant is required to comply with the County's Land Grading and Erosion Control Ordinance (County Municipal Code Chapter 16.44). Because the project would involve clearing and grubbing more than 1 acre of land, a grading permit is required for compliance with the ordinance. As part of the permit application, plans must be submitted to the County showing the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or installed prior to, during, or after the proposed activity (Municipal Code Section 16.44.090). Furthermore, because the proposed project would disturb more than 1 acre of land, the project applicant is required by law to prepare a Stormwater Pollution Prevention Plan (SWPPP) and implement site-specific Best Management Practices (BMPs) that are specifically designed to prevent erosion and downstream sedimentation, and to protect water quality. A Notice of Intent, along with a SWPPP and BMPs, must be submitted to the Central Valley Regional Water Quality Control Board for approval, in compliance with the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order WQ 2022-0057-DWQ). The Construction General Permit also includes post-construction stormwater performance standards that address water quality and hydromodification protection. Examples of the types of BMPs that could be implemented to reduce construction-related erosion include watering the soil during earthmoving activities, silt fences, staked straw bales/wattles, silt fences, geofabric, trench plugs, terraces, water bars, soil stabilizers, mulching, and revegetation of disturbed areas. Construction techniques that could be implemented to reduce the potential for stormwater runoff include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup.

Because the project applicant would be required to comply with the requirements in the County's Grading Ordinance and would prepare a SWPPP and implement BMPs designed to control construction-related stormwater runoff and reduce erosion as required by the SWRCB, the impact from construction of the proposed project on soil erosion or loss of topsoil would be **Less than Significant**. (Long-term impacts from project operation related to soil erosion are evaluated under the heading, "Hydrology and Water Quality.")

c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

As described above, the project site consists of the San Joaquin silt loam (leveled, 0 to 1 percent slopes). Based on NRCS (2024) soil survey data, this soil type is not rated with any hazards related to instability, such as lateral spreading, subsidence, or collapse from low soil bearing strength. Furthermore, for the reasons described above in Impacts a) iii) and iv), the project would not be subject to liquefaction or landslide hazards. Thus, there would be **No Impact**.

d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

As described above, the project site consists of the San Joaquin silt loam (leveled, 0 to 1 percent slopes). The results of laboratory testing from soil borings obtained by Geocon (2023) for the site-specific Geotechnical Investigation indicated that project site soils contain layers of clay and therefore exhibit a low to moderate expansion (shrink-swell) potential.

The CBC includes engineering practices that require special design and construction methods to reduce or eliminate hazards from construction in expansive soil. The project applicant is required by law to comply with the CBC, which ensures appropriate design and construction of building foundations to resist soil movement would be implemented. In addition, the CBC also contains drainage-related requirements to reduce seasonal fluctuations in soil moisture content. Construction in soils of low strength is also addressed in the CBC through implementation of soil engineering tests and amending and compacting soils.

The preliminary site-specific Geotechnical Investigation addresses soil expansion potential. Geocon (2023) indicated that slabs-on-grade and exterior flatwork would require a layer of engineered fill comprised of non-expansive soils. The Geotechnical Investigation includes recommendations for foundation dimensions, minimum reinforcement, and concrete slabs-on-grade as appropriate for the site soil conditions. A final site-specific geotechnical report would be prepared according to CBC and County requirements (including County Municipal Code Chapter 16.44 related to grading), which is required to contain appropriate engineering and design recommendations related to seismic, soils, and other geologic considerations at the project site. The final geotechnical report would be submitted to the County for review as part of the applicant's permit application. Therefore, the impact from construction and operation in expansive soils is considered **Less than Significant**.

e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

Development of the proposed project does not require or include installation of septic tanks or alternative wastewater disposal systems. The project site is located within an area that has been,

and will continue to be, served by a municipal wastewater system. Temporary, portable restrooms would be provided for construction workers during the construction phase. Thus, there would be **No impact**.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

UNIQUE GEOLOGIC FEATURES

A unique geologic feature consists of a major natural element that stands out in the landscape, such as a large and scenic river, gorge, waterfall, volcanic cinder cone, lava field, or glacier. These features are considered outstanding examples that are regarded as the best of their kind. The project site is flat and undeveloped. The immediately adjacent land is also flat and is developed with residential uses to the north and south, and agricultural land to the east and west. There are no unique geologic features at the project site or within the project viewshed. Thus, there would be **No Impact** related to destruction of a unique geologic feature.

PALEONTOLOGICAL RESOURCES

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on paleontological resources if it would directly or indirectly destroy a unique paleontological resource or site. A "unique paleontological resource or site" is one that is considered significant under the following professional paleontological standards.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies, depending on several factors: the age and depositional environment of the rock unit that contains the fossils; their rarity; the extent to which they have already been identified and documented; and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates generally are common, the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils generally are considered scientifically important because they are relatively rare.

The project site is underlain by the Riverbank Formation. As discussed above, the Riverbank Formation is considered to be of high paleontological sensitivity due to the number of previously

recorded vertebrate fossils that have been recovered from this formation in California. Therefore, construction-related earthmoving activities at the project site could result in accidental damage to or destruction of unique paleontological resources, and this impact is considered **Potentially Significant.**

However, implementation of Mitigation Measure GEO-1 would reduce project-related impacts on unique paleontological resources to **Less than Significant with Mitigation** because construction workers would be alerted to the possibility of encountering paleontological resources and, in the event that resources were discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

Environmental Mitigation Measures

Mitigation Measure GEO-1: Avoid Impacts to Unique Paleontological Resources

To minimize the potential for destruction of or damage to previously unknown unique, scientifically important paleontological resources during earthmoving activities at the project site, the project applicant shall do the following:

- Prior to the start of earthmoving activities, retain either a qualified archaeologist or paleontologist to inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

- If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the project applicant and the County. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the project applicant and the County to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resource or resources were discovered.

VIII. Greenhouse Gas Emissions

Greenhouse Gas Emissions Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. The principal GHGs contributing to climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Human-caused, or anthropogenic, emissions of these GHGs in excess of natural ambient concentrations are generally considered responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's climate, known as global climate change (Intergovernmental Panel on Climate Change [IPCC] 2021).

The Global Warming Potential (GWP) of GHGs compares the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere (its "atmospheric lifetime"). The GWP of each gas is measured relative to CO_2. Therefore, CO_2 has a GWP of 1. GHGs with lower emissions rates than CO_2 may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO_2 (i.e., have a higher GWP). For example, N_2O has a GWP of 298, meaning that 1 ton of N_2O has the same contribution to the greenhouse effect as approximately 298 tons of CO_2 (CARB 2022a). The concept of CO_2 equivalence (CO_2e) is used to account for the different GWP potentials of GHGs. GHG emissions are typically measured in terms of pounds or tons of CO_2e and are often expressed in metric tons (MT) CO_2e.

GHGs are emitted by natural processes and as a result of human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The temperature record shows a decades-long trend of warming, with the newest release in long-term warming trends announcing 2023 ranked as the warmest year on record with an increase of 1.6 degrees Fahrenheit compared to the 1951-1980 average (NASA 2024). The IPCC concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming of the earth from pre-industrial times to 1950, while some variations in natural phenomena also had a small cooling effect, as opposed to more recent decades in which there is scientific consensus that warming is largely attributable to anthropogenic activities.

POTENTIAL EFFECTS OF CLIMATE CHANGE

Climate change is a global issue because GHGs can have global effects, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern (see Section 4, "Air Quality"). Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years), or long enough to be dispersed around the globe.

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The IPCC's 2021 Synthesis Report indicated that warming of the climate system is unequivocal and, since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2021).

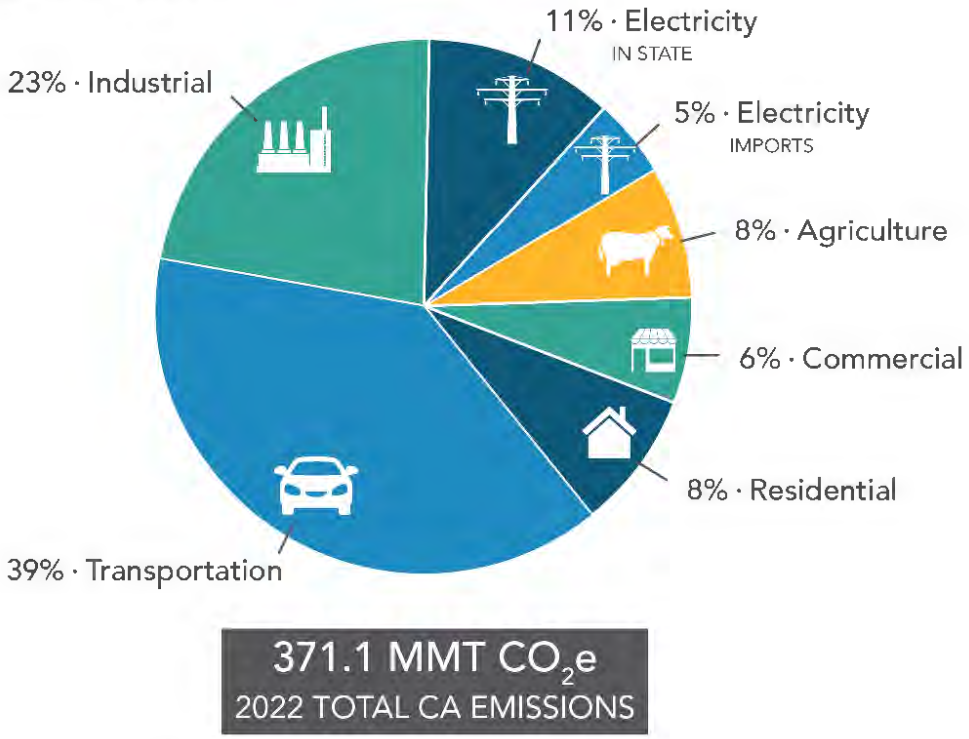
Although climate change is driven by global atmospheric conditions, climate change impacts are also felt locally. A scientific consensus confirms that climate change is already affecting California. As noted in the Sacramento Valley Regional Report of the California's Fourth Climate Change Assessment (Houlton and Lund 2018), climate change is expected to make the Sacramento region hotter, drier, and increasingly prone to extremes like megadroughts, flooding, and large wildfires. These changing conditions are likely to affect water and energy availability, agricultural systems, plants and wildlife, public health, housing, and quality of life.

In Sacramento County, potential hazards (or exposures) related to climate change have also been analyzed as part of the Climate Change Vulnerability Assessment for the Sacramento County Climate Action Plan (Communitywide CAP) (Sacramento County 2017). The direct, or primary, effects of climate change analyzed for Sacramento County include increased temperature, changes in precipitation patterns, and sea level rise. Secondary consequences, which could occur as result of one or a combination of these primary effects include increased frequency, intensity, and duration of extreme heat days and heat waves/events; loss of snowpack and decreased water supplies; increased wildfire; and increased flooding.

GREENHOUSE GAS EMISSIONS INVENTORY AND TRENDS

CARB performs annual statewide inventories for GHG emissions by sector. As shown in Plate IS-13, the inventory is divided into five broad sectors of economic activity: agriculture, commercial and residential, electricity generation, industrial, and transportation. Emissions are quantified in million metric tons (MMT) CO_2e.

Plate IS-14: 2022 California Greenhouse Gas Emissions Inventory by Sector



Source: CARB 2024

IMPACT DISCUSSION

a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Project implementation would generate short-term construction and long-term operational GHG emissions. Construction-related GHG emissions would cease following construction of the project. However, operational emissions are considered long-term and assumed to occur for the lifetime of the project. Construction-related GHG emissions would be generated primarily from exhaust emissions associated with off-road construction equipment, construction worker commutes, and vendor and haul truck trips. Operational GHG emissions can be categorized into direct and indirect GHG emissions. Direct GHG emissions are those emissions that are generated at the location of consumption or use. For example, mobile-source emissions are direct emissions because GHG emissions are generated as a vehicle is operated. Conversely, indirect emissions are those emissions that occur at a different time or location from the point of consumption or use. For example, electricity-related GHG emissions are indirect emission because as a consumer uses electricity, the fuel combustion and emissions associated with creating that electricity likely occurred off-site or at a different time. Other indirect GHG emissions include emissions associated with solid waste disposal and water consumption.

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are unlikely to contribute to climate change significantly by themselves. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to

climate change. Therefore, this impact is assessed within the cumulative context of the project's potential contribution to significant impacts on global climate change.

Addressing the potential impacts from GHG emissions generated as a result of a project requires an agency to make a determination as to what constitutes a significant impact. As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to support determinations of significance. In April 2020, the SMAQMD Board of Directors adopted the Update to the Recommended GHG Emissions Thresholds of Significance (SMAQMD 2020a). This document established thresholds of significance for GHG emissions designed to analyze a project's consistency with the State's near- and longer-term climate targets, including Assembly Bill (AB) 32, which required reduction of statewide GHG emissions to 1990 levels by 2020, Senate Bill (SB) 32, which established a reduction mandate of 40 percent below 1990 statewide emissions levels by 2030, Executive Order (EO) S-3-05 which established a State goal for the reduction of GHG emissions generation by 80 percent compared to 1990 levels by 2050, and EO B-55-18, which established a statewide emissions goal to achieve carbon neutrality no later than 2045 (SMAQMD 2021). AB 1279, the California Climate Crisis Act, was signed September 16, 2022, codifying EO B-55-18. This law declares the policy of the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter. It requires statewide anthropogenic greenhouse gas emissions be reduced to at least 85 percent below 1990 levels by 2045.

The SMAQMD CEQA Guide states that projects that would result in emissions that are equal to or greater than the significance criteria would have a potentially significant adverse impact on global climate change (SMAQMD 2021). Sacramento County adopted SMAQMD's thresholds of significance (summarized below) on December 16, 2020 by Resolution #2020-0855. Therefore, consistent with CEQA Guidelines 15064.4, the GHG analysis for the project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular project.

The SMAQMD construction period GHG emissions threshold is 1,100 MT CO_2e per year. Where a qualified GHG Reduction Plan has not been adopted by the lead agency or the agency elects not to use a GHG reduction plan for a proposed project, for operational period GHG emissions, the SMAQMD GHG thresholds require that a project implement Tier 1 Best Management Practices (BMPs). Projects that do not implement the Tier 1 BMPs must conduct additional calculations to determine excess GHG emissions and provide measures either on-site or off-site to provide equivalent mitigation (SMAQMD 2020b). Tier 1 BMPs are as follows:

- BMP 1 - projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 - projects shall meet the current CALGreen Tier 2 standards for electric vehicle charging, except all electric vehicle capable spaces shall instead be electric vehicle ready.

Projects that implement BMP 1 and BMP 2 can utilize the screening criteria for operational emissions; projects that do not exceed 1,100 MT CO_2e per year are then screened out of further requirements. For projects that exceed 1,100 MT CO_2e per year operational screening level emissions, the SMAQMD requires implementation of Tier 2 BMPs (SMAQMD 2020b), as follows:

- BMP – 3 - residential projects shall achieve a 15 percent reduction in vehicle miles traveled per resident, office projects shall achieve a 15 percent reduction in vehicle miles traveled per worker compared to existing average vehicle miles traveled for the county, and retail

projects shall achieve a no net increase in total vehicle miles traveled to show consistency with SB 743.

SMAQMD's Tier 1 and Tier 2 BMPs were developed to demonstrate consistency with the 2017 Climate Change Scoping Plan to reduce GHG emissions to 40 percent below 1990 levels by 2030 and reduce GHG emissions to 80 percent below 1990 levels by 2050, in addition to the target set by EO-55-18 and AB 1279 to achieve carbon neutrality by 2045.

Since these thresholds were last updated by SMAQMD, CARB has finalized the 2022 Climate Change Scoping Plan, which establishes the State's framework for reaching the target to achieve carbon neutrality no later than 2045 established in EO B-55-18 and AB 1279 and later promulgated into law through AB 1279. Carbon neutrality is not a standard to be achieved on an individual project basis, but through the implementation of best available technology, increasingly stringent regulations to reduce emissions from various sources, state and regional plans to reduce vehicle miles traveled (VMT) and increase carbon-free vehicle use, and carbon capture and sequestration actions focused on the natural and working lands sector, as identified in the 2022 Scoping Plan. Evaluating consistency with the State's emissions reduction targets shows alignment with the State's approach to reduce the generation of GHG emissions from existing and anticipated future sources, a key component of the 2022 Scoping Plan (CARB 2022b).

As discussed above, SMAQMD considered consistency with the goal of carbon neutrality by 2045 when developing the District's GHG thresholds. Therefore, to demonstrate consistency with the State's long-term climate goals or strategies, and to determine whether implementation of the project would have a significant impact on the environment, this analysis will use the SMAQMD-established operational BMPs and numerical thresholds of 1,100 metric tons of CO_2e per year for construction and operational emissions.

CONSTRUCTION EMISSIONS

Project construction-related GHG emissions were modeled using the same methods and assumptions as those described in Air Quality, of this Initial Study. In addition to criteria air pollutants, CalEEMod also estimates GHG emissions associated with construction and operational activities. For construction, GHG emissions were estimated for off-road construction equipment, material delivery trucks, haul trucks, and construction worker vehicles. Project-specific inputs were used in conjunction with default model settings to estimate reasonably conservative conditions. Additional details of construction activity, selection of construction equipment, and other input parameters, are included in the CalEEMod output provided in Appendix A.

The generation of construction-related GHG emissions associated with the proposed project would be temporary. As shown in Table IS-11, the annual project construction GHG emissions would not exceed the SMAQMD threshold. Therefore, this impact would be **Less than Cumulatively Considerable.**

Table IS-11: Construction GHG Emissions

Year	Emissions (MT CO_2e)
2025	264
2026	514
2027	74
Maximum Year	**514**
SMAQMD Threshold	*1,100*
Exceed Threshold?	No

Source: Modeled by AECOM in 2024; Threshold SMAQMD 2020b

GHG = greenhouse gas; MT = metric tons; CO_2e = carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District

OPERATIONAL EMISSIONS

Project operational GHG emissions were estimated using CalEEMod, as described above. For operational activities, CalEEMod estimates GHG emissions associated with mobile, area, energy, and stationary sources, similar to criteria air pollutant emissions, in addition to GHG emissions associated with water, refrigeration, and solid waste disposal. Project design features were incorporated into CalEEMod to reflect the project being constructed without natural gas infrastructure. Additional details of operational activities and other input parameters are included in Appendix A.

Project operational emissions are compared to the SMAQMD threshold in Table IS-12.

Table IS-12: Operational GHG Emissions

Emission Sources	Emissions (MT CO_2e)
Mobile	293.84
Area	0.21
Energy	8.13
Water	0.33
Waste	76.35
Refrigerants	0.01
Emergency Generator	3.86
Total[1]	**382.73**
SMAQMD Screening Level	*1,100*
Exceed Screening Level?	No

Source: Modeled by AECOM 2024; Threshold based on SMAQMD 2020b

[1] Totals may not sum due to rounding.

GHG = greenhouse gas; MT = metric tons; CO_2e = carbon dioxide equivalent

To use the SMAQMD's land use development project GHG emissions significance threshold, SMAQMD requires all project to implement the Tier 1 BMPs, regardless of the projects' GHG emission levels, or provide measures to implement equivalent mitigation. As described above, the project would be constructed without natural gas infrastructure; therefore, the project would meet the requirement of SMAQMD BMP 1. Without implementation of the SMAQMD Tier 1 GHG BMP 2 proposed under Mitigation Measure GHG-1, the project could result in the generation of GHG emissions at a level greater than its fair share of emissions reductions consistent with the State GHG reduction targets and could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be **Potentially Cumulatively Considerable.**

Implementation of Mitigation Measure GHG-1 would require the project to meet CALGreen Tier 2 for electric vehicle charging standards except that the required minimum number of electric vehicle capable spaces shall instead be electric vehicle ready; therefore, the project would meet the requirement of SMAQMD BMP 2 with implementation of Mitigation Measure GHG-1. As discussed above, SMAQMD's Tier 1 GHG reduction BMP 1 and BMP 2 were developed to demonstrate consistency with the 2017 Climate Change Scoping Plan to reduce GHG emissions to 40 percent below 1990 levels by 2030 (per SB 32) and reduce GHG emissions to 80 percent below 1990 levels by 2050 (per EO S-03-05), in addition to the target set by EO-55-18 to achieve carbon neutrality by 2045. Therefore, consistency with SMAQMD's Tier 1 GHG BMPs would also ensure consistency with these GHG emission reduction goals.

As shown in Table IS-12, the project's operational GHG emissions would be below the SMAQMD operational screening level. Therefore, with implementation of Mitigation Measure GHG-1, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and also would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. These impacts would be **Less than Cumulatively considerable with Mitigation**.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed above, SMAQMD's Tier 1 GHG reduction BMP 1 and BMP 2 were developed to demonstrate consistency with the 2017 Climate Change Scoping Plan to reduce GHG emissions to 40 percent below 1990 levels by 2030 (per SB 32) and reduce GHG emissions to 80 percent below 1990 levels by 2050 (per EO S-03-05), in addition to the target set by EO-55-18 and AB 1279 to achieve carbon neutrality by 2045. Therefore, consistency with SMAQMD's Tier 1 GHG BMPs would also ensure consistency with these GHG emission reduction goals. Therefore, this impact would be **Less than Cumulatively Considerable with Mitigation.**

ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measure GHG-1. The project shall implement Tier 1 Best Management Practices (BMPs), as follows:

- BMP 1 - projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 - projects shall meet the current CALGreen Tier 2 standards for electric vehicle charging, except all electric vehicle capable spaces shall instead be electric vehicle ready

IX. HAZARDS AND HAZARDOUS MATERIALS

Hazards and Hazardous Materials Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
f. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS

AECOM performed a search of publicly available databases maintained under Public Resources Code Section 65962.5 (i.e., the "Cortese List") to determine whether any known hazardous materials are present either in or within 0.25 mile of the project site. These searches included the EnviroStor database maintained by the California Department of Toxic Substances Control (DTSC 2024), and the GeoTracker database maintained by the State Water Resources Control Board (SWRCB 2024). In addition, AECOM performed a search of the U.S. Environmental Protection Agency's (USEPA 2024) National Priorities List (Superfund) database. The nearest known hazardous materials site is approximately 1.25 miles north of the project site (DTSC 2024, SWRCB 2024); furthermore, this hazardous materials site has been remediated and closed (closed sites are not part of the Cortese List). The nearest Superfund site is the Sacramento Army Depot, approximately 5 miles northwest of the project site (USEPA 2024).

SCHOOLS

There are two K–12 schools within 0.5 mile of the project site. The Robert J. Fite Elementary School, located at 9561 Fite School Road, is approximately 0.32 mile northwest of the project site. The Bradshaw Christian School, located at 8324 Bradshaw Road, is approximately 0.40 mile southwest of the project site.

WILDLAND FIRE HAZARDS

The project site is not located in or near a wildland fire hazard area, including a State Responsibility Area or a State or local very high fire hazard severity zone (California Department of Forestry and Fire Protection [CAL FIRE] 2024). The nearest fire hazard severity zone is in a State Responsibility Area and is rated by CAL FIRE as "moderate" (approximately 8 miles east of the project site). There are no designated fire hazard severity zones in a Local Responsibility Area within 15 miles of the project site.

IMPACT DISCUSSION

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Project construction would include the use of small amounts of gasoline, diesel, lubricants, and oils for construction equipment. Project operation would include the use of gasoline and diesel, chemicals associated with fire-fighting activities, small amounts of pesticides and fertilizers for landscape maintenance, and cleaning agents for washing fire apparatus. Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and the California Department of Transportation (Caltrans), and use of these materials is regulated by DTSC, as outlined in CCR Title 22. The project applicant and its construction contractors would be required to use, store, and transport hazardous materials in compliance with applicable federal and State regulations during project construction and operation. Because the project would be required to implement and comply with existing hazardous material regulations, and because each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated quicker response to emergencies, this impact would be **Less than Significant**.

b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Construction and operation of the proposed project would involve the use of small amounts of hazardous materials such as gasoline, diesel, oil, fire-retardant chemicals, and cleaning agents at the fire station, along with small amounts of pesticides and fertilizers for landscape maintenance. However, none of these materials would be acutely hazardous, and their use is regulated by law at both the state and federal level. All users are required to read and follow the manufacturer's labeling instructions for use, storage, and disposal of hazardous materials. Furthermore, because the proposed project would disturb more than 1 acre of land, the project applicant is required by law to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) with appropriate best management practices (BMPs), such as spill prevention and contingency measures to reduce the potential for accidental spills and procedures for implementation of appropriate and timely cleanup activities if spills do occur. Truck fueling of fire

station equipment during project operation would not occur on site. The proposed project would include a sand-oil interceptor for the truck wash bay that is designed to prevent any pollutants in fire equipment wash water from reaching the groundwater or surface water bodies. Finally, the fuel tank for the backup generator is integrated by the manufacturer into the generator; it is a standard double-walled tank designed to provide a 72-hour run time in the event of an emergency. A separate stand-alone above ground or below ground fuel storage tank is not required. Therefore, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment, and this impact would be **Less than Significant.**

c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The Robert J. Fite Elementary School is approximately 0.32 mile northwest of the project site. The Bradshaw Christian School is approximately 0.40 mile southwest of the project site. The project applicant and its construction contractors would be required to use, store, and transport hazardous materials in compliance with applicable federal and State regulations during project construction and operation. Minor amounts of cleaning products and herbicides used for maintenance at the project site would not represent a hazard. The proposed project would not include the emissions or handling of acutely hazardous materials, substances, or wastes. Finally, due to the distance from the project site to the existing schools, the proposed project would not result in construction- or operation-related hazardous air emissions for children or staff at either school. Therefore, this impact would be **Less than significant**.

d. *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Based on results of database searches performed in 2024, the project site is not located on a known hazardous materials site that is on the Cortese list, nor are there any open, active hazardous material sites in the project vicinity (DTSC 2024, SWRCB 2024). The nearest Superfund site is approximately 5 miles north of the project site (USEPA 2024). Thus, a significant hazard to the public or the environment would not be created from construction or operation in a Cortese-listed or other known hazardous materials site, and there would be **No Impact**.

e. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

All construction materials and equipment would be stored on the project site. A short-term and temporary lane closure of one of the two northbound lanes on Bradshaw Road during the construction phase would be required during installation of the project's primary access from Bradshaw Road. However, the other northbound lane on Bradshaw Road would remain open to traffic. Furthermore, the existing Bradshaw Vineyard Village residential development is north of project site and therefore, an emergency evacuation would not be affected by the short-term and temporary northbound lane closure along Bradshaw Road to the south. Bradshaw Vineyard Village is accessed by Vintage Park Drive, on the east side of Bradshaw Road. On the west side of Bradshaw Road, Vintage Park Drive is a 4-lane divided roadway that continues west through the Vinyard area to Elk Grove Florin Road (another 4-lane divided roadway). A network of roadways is available in the Vineyard area in the event of an emergency evacuation.

Any necessary emergency evacuations in the area surrounding the project site would be coordinated by Sacramento County officials through the County Office of Emergency Services (OES). The project site is in Evacuation Zone 65 - Vineyard. The primary evacuation routes in the project area include Bradshaw Road, Gerber Road, Vintage Park Drive, and Calvine Road, among others (Sacramento County OES 2024). The Sacramento Metropolitan Fire Department, which would operate the site as a fire station, is a partner, along with local law enforcement officials and the Sacramento County Department of Transportation, with the Sacramento County OES and would help to implement the Sacramento County Evacuation Plan (Sacramento County OES 2018). Furthermore, the fire station would be directly involved in providing fire suppression services if a fire were to occur in the project area.

The new fire station's primary access would be to the west from Bradshaw Road. In addition, emergency site access would be installed to the north by providing a connection to Vintage Park Drive via Cider Way (see Plate IS-3 under the heading, "Project Description"). Thus, the proposed design for development at the project site includes an appropriate circulation network that meets Sacramento County standards for emergency access.

Therefore, development of the project site would not substantially impair emergency access or implementation of an emergency evacuation plan, and this impact would be **Less than Significant**.

f. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is located in the Vineyard area, which is planned for development, and is not situated within or near a State Responsibility Area or a very high fire hazard severity zone. The project site and the surrounding area are within a Local Responsibility Area and are not designated as very high or high fire hazard severity zones. The nearest fire hazard severity zone is rated as "moderate" and is approximately 8 miles east of the project site (CAL FIRE 2024).

The project site consists of vacant, flat land covered with grasses, forbs, and a small group of trees. The site is surrounded by existing residential development to the north; a small urban park to the northeast; agricultural and rural residential development to the east and south; and undeveloped land to the west. The surrounding land is primarily flat and open. Laguna Creek, which is approximately 20 feet wide and is bordered by trees on both sides, is adjacent to the southeast corner of the project site. The project site would be operated as a fire station by the Sacramento Metropolitan Fire District and therefore would provide a benefit in terms of improved fire protection services for the surrounding community. Development of the project site with the proposed fire station would not exacerbate wildland fire risks. Thus, there would be **No Impact**.

Environmental Mitigation Measures

None required.

X. HYDROLOGY AND WATER QUALITY

Hydrology and Water Quality Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d. Develop in an area that is subject to 200 year urban levels of flood protection (ULOP)?	☐	☐	☒	☐
e. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
f. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

WATERSHEDS

The project site is situated within the Laguna Creek watershed, which encompasses approximately 42,993 acres. Laguna Creek, which is approximately 20 feet wide and is bordered by trees on both sides, is adjacent to the southeast corner of the project site. Laguna Creek flows

south and then west past the project site for approximately 6.8 miles and eventually discharges into Morrison Creek just above Beach Lake near Interstate 5. Morrison Creek flows south and discharges to the Sacramento River just north of the Stone Lakes National Wildlife Refuge.

STORMWATER DRAINAGE

The topography of the project site is nearly flat, ranging from 71 feet in the north to 68 feet in the south. The project site does not have an existing drainage system, except for an unlined roadside ditch along the western side of Bradshaw Road. Instead, stormwater runoff flows overland towards the midpoint of the southern property line into a natural on-site basin, and then off the project site for a distance of approximately 180 feet where it discharges into Laguna Creek (BFK Engineers 2024).

FLOODING

The southern half of the project site is situated within a Federal Emergency Management Agency (FEMA) 100-year floodplain (see Plate IS-3 in "Project Description"), which is designated by FEMA as Zone AE (FEMA 2018). A small strip (approximately 25 feet wide) adjacent to and north of the 100-year floodplain has been designated by FEMA as Zone X, a 0.2% Annual Chance of Flood Hazard (equivalent to the 500-year floodplain) (FEMA 2018).

According to a 200-year ULOP map provided by Sacramento County (Sacramento County 2025) The southern portion of the project site is located within a 200-year floodplain and therefore is subject the Urban Level of Flood Protection requirements contained in the Central Valley Flood Protection Plan (California Department of Water Resources [DWR] 2024), and the Sacramento County Floodplain Management Ordinance (Sacramento County Department of Water Resources 2024). The County's 200-year ULOP lines within the project site approximately align with the FEMA Zone X 500-year floodplain lines.

SURFACE WATER QUALITY

As required by the Porter-Cologne Water Quality Control Act, the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) has designated beneficial uses for water body segments in its jurisdiction, along with water quality criteria necessary to protect these uses, as contained in the Sacramento and San Joaquin River Basin Plan (Central Valley RWQCB 2019). In addition, the federal Clean Water Act (CWA) Section 303(d) requires states to identify waters where the permit standards, any other enforceable limits, or adopted water quality standards are still unattained. The CWA also requires states to develop total maximum daily loads (TMDLs) to improve the water quality of impaired water bodies. TMDLs are the quantities of pollutants that can be safely assimilated by a water body without violating water quality standards. TMDLs are developed for impaired water bodies to maintain beneficial uses as designated in the applicable Basin Plan, achieve water quality objectives, and reduce the potential for future water quality degradation. National Pollutant Discharge Elimination System (NPDES) permits for water discharges must take into account the pollutants for which a water body is listed as impaired.

Laguna Creek, Morrison Creek, and the Sacramento River are all impaired water bodies included in the SWRCB's 303(d) list and could receive runoff from the proposed project. The pollutants for each waterbody are listed below (SWRCB 2024).

- Laguna Creek: benthic community effects and toxicity.

- Morrison Creek: diazinon, toxicity, pyrethroids, pentachlorophenol (PCP), dissolved oxygen, and benthic community effects.

- Sacramento River (Sacramento City Marina to Suisun Marsh Wetlands): toxicity, pyrethroids, fipronil, and water temperature.

Three of the above-listed pollutants (diazinon, pyrethroids, and toxicity) currently have adopted TMDLs.

EROSION AND RUNOFF POTENTIAL

Most soils can be categorized into hydrologic soil groups (which apply only to surface soil layers) based on runoff-producing characteristics. Hydrologic soil groups are factored into calculations of erosion potential when drainage plans are prepared. Based on a review of U.S. Natural Resources Conservation Service ([NRCS]) soil data, the project site soil is classified as hydrologic Group C, which consists of soils with a high stormwater runoff potential (NRCS 2024, BFK Engineers 2024).

GROUNDWATER

The project site is situated in the Sacramento Groundwater Basin, South American Subbasin (DWR Basin Code 5-021.65), which underlies southern Sacramento County. A Groundwater Sustainability Plan for the South American Subbasin (Sacramento Central Groundwater Authority et al. 2021) was approved by the California Department of Water Resources in 2023. The California Department of Water Resources determined that the South American Subbasin is a high priority basin but is not in a condition of critical overdraft (DWR 2019). As described in the South American Subbasin Groundwater Sustainability Plan, groundwater management in the South American Subbasin has been occurring for decades. Stable groundwater conditions in terms of groundwater levels, storage volume, and interconnected surface waters have been achieved due to a variety of historically implemented projects and management actions. The Groundwater Sustainability Plan determined, based on analysis of the best available information, that the South American Subbasin will be sustainable over the next 20 years as long as planned recycled water, recharge, and other projects are implemented. These projects will raise groundwater levels above current levels, maintain storage volumes, and protect ecosystems, interconnected surface water, and shallow well users.

No existing groundwater wells are present on the project site and no new wells would be drilled to supply water for the proposed project. The project site would be served with water from the Sacramento County Water Agency, Zone 40. Please refer to the material under the heading, "Utilities and Service Systems," of this IS/MND for additional details regarding water supply.

IMPACT DISCUSSION

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Project-related construction activities would take place on approximately 1.5 acres of the 4.6-acre project site. No construction would occur over the remaining 3.1 acres of the project site. Project-related construction in the proposed development area would require vegetation removal, excavation, trenching, grading, and construction equipment staging and material stockpiling, which would temporarily disturb surface soils. These activities would expose soil to the erosive

forces of wind and water. The soil could be transported via the existing open ditches and overland flow to Laguna Creek, Morrison Creek, and ultimately to the Sacramento River, thereby increasing turbidity and degrading water quality.

To receive a building permit from the County, compliance with Sacramento County Code Chapter 16.44 (Land Grading and Erosion Control) requires the project applicant to prepare and submit a Grading and Erosion Control Plan to the County Engineering Department. The plan must incorporate erosion and sediment control measures for stormwater runoff during construction, as well as existing and proposed operational storm drainage design features to control increased runoff from the project site.

The project is also required by law to comply with the provisions of the SWRCB's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order WQ 2022-0057-DWQ, NPDES Permit No. CAS000002) (Construction General Permit) (SWRCB 2022). The Construction General Permit regulates stormwater discharges for construction activities under the CWA and applies to all land-disturbing construction activities that would disturb 1 acre or more. The project applicant must submit a notice of intent to discharge to the Central Valley RWQCB, and must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes site-specific Best Management Practices (BMPs) to minimize those discharges. All NPDES permits also have inspection, monitoring, and reporting requirements. The Central Valley RWQCB requires dischargers to implement construction and operational design features and BMPs that are specifically intended to reduce the potential for downstream hydromodification. The Construction General Permit also requires implementation of BMPs that are designed to prevent accidental spills of hazardous materials during the construction phase to the maximum extent practicable, and the SWPPP must include procedures for immediate cleanup should any releases occur. The Central Valley RWQCB also has the authority to issue waivers to reports of waste discharge (WDRs) and/or WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Long-term operational discharges of urban contaminants into the stormwater drainage system and ultimate receiving waters would increase with the buildout of the proposed project, compared to existing conditions. The major factor in this increase is the added amount of impervious surfaces, primarily taking the form of parking lots, driveways, streets, rooftops, and sidewalks. New impervious surfaces associated with new development would result in an associated increase in urban stormwater runoff, which could be a source of surface water pollution. In addition, wash water from commercial and industrial uses can contain pollutants.

Sacramento County has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater (MS4) Permit issued by the Central Valley RWQCB (Order No. R5-2016-0040-010) (Central Valley RWQCB 2016). To comply with TMDLs established by the Basin Plan, the Municipal Stormwater Permit requires the County to reduce pollutants in operational stormwater discharges to the maximum extent practicable, and to effectively prohibit non-stormwater discharges, through management practices, control techniques and systems, design and engineering methods, and other such provisions. The County has adopted a Stormwater Management and Discharge Control Ordinance (Sacramento County Code Chapter 15.12), to implement the provisions of the MS4 permit. The ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. The ordinance requires dischargers to implement site-specific BMPs designed to reduce pollutants in operational stormwater runoff. The ordinance also includes inspection and monitoring

requirements. The project site is located within an area that is subject to hydromodification requirements, and the County requires implementation of Low Impact Development (LID) techniques designed to provide stormwater pre-treatment prior to discharge into the County storm drainage system. The proposed project has been designed to incorporate six biofiltration planter areas as LID features that would provide stormwater quality pretreatment (BKF Engineers 2024). In addition, the proposed project would include a sand-oil interceptor for the truck wash bay that is designed to prevent any pollutants in fire equipment wash water from reaching the groundwater or surface water bodies. Finally, truck fueling of fire station equipment during project operation would not occur on site.

In conclusion, compliance with the above-listed regulations, standards, ordinances, and permit terms would require the proposed project to reduce pollution and runoff generated at the project site through implementation of operation-related LID technologies, BMPs, and pre-treatment, along with preparation of a SWPPP with associated BMPs designed to control construction-related erosion and pollutants. These measures would protect water quality as required by the Sacramento and San Joaquin River Basin Plan. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, and this impact would be **Less than Significant**.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project site is situated in the Sacramento Groundwater Basin, South American Subbasin. This subbasin is not in a state of overdraft (Sacramento Central Groundwater Authority et al. 2021). No existing groundwater wells are present on the project site and no new wells would be drilled to supply water for the proposed project. The proposed project would be served with potable water by the Sacramento County Water Agency (SCWA) Zone 40, and is within Zone 40's Laguna-Vineyard water service area. Zone 40 obtains water from groundwater. SCWA's 2020 Urban Water Management Plan determined that water to supply existing and future projected development through the 2045 planning horizon is 100 percent reliable in all water years (including normal, single dry, and consecutive dry years) (Tully & Young 2021).

Approximately 45,201 square feet (1.04 acres) of new impervious surfaces would be created from project development (BKF Engineers 2024). Proposed landscaping throughout the development area, along with the LID biofiltration planters, would continue to allow groundwater recharge on portions of the proposed development area. Furthermore, approximately 3.1 acres of the project site would not be developed, and therefore would continue to allow rainwater to percolate through to the groundwater table. However, most of the proposed development area would consist of impervious surfaces in the form of parking lots, driveways, rooftops, and sidewalks, which would reduce groundwater recharge as compared to current conditions.

Modeling conducted for the South American Subbasin Groundwater Sustainability Plan included a projected conditions water budget scenario, which includes future development through 2040 along with implementation of the specific management actions included in the Groundwater Sustainability Plan. Modeling results indicate there will be greater inflows than outflows in the Subbasin, resulting in an increase in groundwater storage over time (Sacramento Central Groundwater Authority et al. 2021). Furthermore, the Groundwater Sustainability Plan contains a description of specific projects and management actions that will be undertaken in the South American Subbasin to promote groundwater sustainability, which includes continued conjunctive

use (i.e., a mix of groundwater and surface water) in urban areas, and continued water demand management.

Because future development through the year 2040 overlying the South American Subbasin—which would include development in the vicinity of the project site—has been accounted for in the groundwater modeling performed for the Groundwater Sustainability Plan and it has been determined that groundwater storage over this period would increase rather than decrease, and because the Zone 40 Urban Water Management Plan indicates that groundwater supplies are sufficient to meet demand, implementation of the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and therefore this impact would be **Less than Significant**.

c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

    i. *result in a substantial erosion or siltation on- or off-site;*

Project implementation would result in excavation and grading on approximately 3 acres of the 4.6-acre project site. The NRCS (2024) has classified the project site soil as Hydrologic Group C, which consists of soils with a high stormwater runoff potential. Earthmoving activities in the proposed development area of the project site could result in erosion and siltation. However, as discussed in detail in (a) above, the project applicant is required to comply with Sacramento County Code Chapter 16.44 (Land Grading and Erosion Control) by preparing and submitting a Grading and Erosion Control Plan to the County Engineering Department for review and approval prior to issuance of building permits. The plan must contain BMPs that would be implemented to control erosion and off-site sediment transport. The project applicant is also required to comply with the requirements of the SWRCB's Construction General Permit, which would require preparation of a SWPPP and implementation of site-specific BMPs designed to control construction-related erosion and sedimentation. Furthermore, during the operational phase, the project must comply with the County's Stormwater Management and Discharge Control Ordinance (Sacramento County Code Chapter 15.12). The six proposed on-site LID features would provide appropriate stormwater pre-treatment as required by the County. A Level 2 Drainage Study, which includes proposed on-site stormwater drainage facilities and LID calculations, has been prepared (BKF Engineers 2024). A Level 4 Drainage Study, which would contain construction-level plans and additional details related to the proposed drainage system and LID features would be provided to Sacramento County DWR for review and approval when improvement plans are submitted. Therefore, the drainage alterations and addition of impervious surfaces at the project site would not result in substantial erosion or siltation on- or off-site, and therefore this impact is considered **Less than Significant**.

    ii. *substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*

A Level 2 Drainage Study (BKF Engineers 2024) has been prepared for the proposed project. As described therein, the proposed drainage system would involve directing surface runoff into six on-site LID biofiltration planter areas that would provide stormwater quality pretreatment (see Plate IS-3, Proposed Site Layout in Chapter 2, "Project Description"). After treatment, the water would be conveyed into new on-site underground stormwater pipelines, which would discharge to existing off-site stormwater pipelines at three locations: two on Bradshaw Road, and one on

Goldenleaf Way. The proposed drainage system has been designed in accordance with the Sacramento Region Stormwater Quality Design Manual (Sacramento Stormwater Quality Partnership 2018) to comply with the County's Stormwater Management and Discharge Control Ordinance (Sacramento County Code Chapter 15.12). All project-related facilities have been designed to accommodate the 10-year design storm flows as required by the County. The proposed project does not include stormwater detention features because modeling results demonstrated that the developed condition flows would not exceed pre-project flows (BKF Engineers 2024). Furthermore, the proposed LID features and the sand-oil separator for wash water (discussed in [c][i], above) would provide appropriate stormwater quality pre-treatment as required by the County. A Level 4 Drainage Study, which would contain construction-level plans and additional details related to the proposed drainage system and LID features, would be provided to Sacramento County DWR for review and approval when improvement plans are submitted.

For the reasons stated above, the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Therefore, this impact is considered **Less than Significant**.

iii. impede or redirect flood flows?

The southern half of the project site is situated in a 100-year flood zone (FEMA 2018). However, as shown in Plate IS-3, Proposed Site Layout (in Chapter 2, "Project Description"), only a small area of the proposed facilities would be constructed within the flood zone. Sacramento County Municipal Code Title 16, Chapter 16.02, Section 16.02.060 (Ordinance SZC-2016-0023) requires a Floodplain Management Permit approved by the County's floodplain administrator for any new construction within a special flood hazard area. The permit application must include plans showing elevations of proposed structures and the elevations of areas proposed for materials and equipment storage; the proposed elevation in relation to mean sea level, of the lowest floor of all structures; the proposed elevation in relation to mean sea level to which any structure will be floodproofed; the location, volume, and depth of proposed fill and excavation within the 100-year floodplain and floodway; and a description of the extent to which any watercourse will be altered or relocated as a result of project development. As described in the Level 2 Drainage Study prepared for the proposed project, the finished elevation of project facilities would be 18 inches above the base flood elevation per Sacramento County requirements (BKF Engineers 2024). Other than the on-site biofiltration planter areas, stormwater detention facilities associated with the Laguna Creek floodplain are not included as part of the proposed project because modeling results demonstrated that the limited project-related grading in the floodplain would not increase the post-project flood conditions as compared to existing conditions (BKF Engineers 2024). Therefore, the proposed project would not impede or redirect flood flows, and this impact is considered **Less than Significant**.

d. Would the project develop in an area that is subject to 200-year urban levels of flood protection (ULOP)?

A small area along the southeastern edge of the project site would be developed in an area that is subject to 200-year urban levels of flood protection (Sacramento County 2025). To account for potential flooding along the development area's southern edge, including within the 500-year FEMA Zone X and the corresponding County 200-year ULOP, the project's proposed facilities would be elevated about 1–2 feet above the base flood elevation of 63.5 feet, as shown on project

grading plans and in the Level 2 Drainage Study prepared for the project (BKF Engineers 2024). All finished floor elevations would be built at least 18 inches above the base flood elevation in accordance with Sacramento County Floodplain Ordinance and Central Valley Flood Protection Plan requirements Therefore, this impact is considered **Less than Significant**.

e. Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Pacific Ocean is approximately 92 miles west of the project site; therefore, tsunamis would not represent a hazard. There are no large bodies of water in the immediate project vicinity that would be subject to seiche hazards; furthermore, the project region is generally not subject to strong seismic ground shaking (Branum et al. 2016). Thus, there would be no impact related to tsunami or seiche hazards.

The southern half of the project site is situated in a 100-year flood zone (FEMA 2018). As described in detail in (c) (iii) above, Sacramento County Municipal Code Title 16, Chapter 16.02, Section 16.02.060 (Ordinance SZC-2016-0023) requires a Floodplain Management Permit for any new construction within a special flood hazard area. The permit application must include the elevations of areas proposed for materials and equipment storage to ensure that such areas are not placed within a flood hazard zone. Furthermore, the project's sand-oil separator that would trap any water quality pollutants contained in fire equipment wash water would be installed outside of the 100-year floodplain. Compliance with Sacramento County requirements contained in the Floodplain Management Permit would result in a **Less than Significant** impact from risk of release of pollutants due to project inundation.

f. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As described in (a), above, compliance with the applicable laws, regulations, ordinances, and permit terms would require the project to reduce pollutants in construction and operational stormwater runoff generated in the proposed development area through implementation of a SWPPP with associated BMPs designed to control construction-related erosion and pollutants; and implementation of County-required, operation-related LID technologies, BMPs, and pollutant source control measures. These measures would protect water quality as required by the Basin Plan (Central Valley RWQCB 2019). Therefore, development of the proposed project would not violate any water quality standards, substantially degrade surface or groundwater quality, or conflict with the Basin Plan, and this impact would be **Less than Significant**.

As described in (b), above, there are no groundwater wells at the project site and no new wells are proposed. Zone 40's Urban Water Management Plan (Tully & Young 2021) indicates there is sufficient water supply (which is obtained from groundwater) available to meet demands within Zone's 40's service area in all water year types through the 2045 planning horizon. The South American Subbasin Groundwater Sustainability Plan (Sacramento Central Groundwater Authority et al. 2021) determined that with implementation of projects contained in the plan that are designed to promote groundwater sustainability, groundwater supplies in the subbasin would increase through the 2040 planning horizon even with implementation of the projected new development throughout the groundwater subbasin planning area. Therefore, the proposed project would not conflict with or obstruct implementation of the South American Subbasin Groundwater Sustainability Plan, and this impact would be **Less than Significant**.

ENVIRONMENTAL MITIGATION MEASURES

None required.

XI. LAND USE AND PLANNING

Land Use and Planning Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is located at the corner of Bradshaw Road and Vintage Park Drive in the unincorporated Vineyard community. The site consists of flat, undeveloped grassland with a few scattered trees. Existing residential land uses are immediately adjacent north of the project site, within the Bradshaw Vineyard Village development. A small public park is present to the northeast. Immediately east and south of the project site are large agricultural/rural residential parcels and land west of the project site is undeveloped.

The proposed development area comprises approximately 1.5 acres of the 4.6-acre project site. The remaining approximately 3.1 acres of the project site would not be developed as part of the project.

The project site is within the area encompassed by the Vineyard Springs Comprehensive Plan (Sacramento County 2000). The Vineyard Springs Comprehensive Plan, consistent with the Sacramento County Zoning Code (Sacramento County 2024), designates and zones the project site as Agricultural Residential minimum lot size 10 acres (AR-10).

IMPACT DISCUSSION

a. Would the project physically divide an established community?

The approximate 4.6-acre project site is currently vacant and is adjacent to the existing residential land uses and undeveloped land. The project site is bound by Bradshaw Road to the west, residences in the Bradshaw Vineyard Village development to the north, and agricultural/rural residential parcels to the east and south. The proposed project includes meandering sidewalks along Bradshaw Road that would provide connectivity. Access to the project site would be provided primarily from Bradshaw Road to the west. A secondary access road, which would be gated and primarily used for ingress for returning trucks and egress only for emergency situations, would be provided on Cider Way in Bradshaw Vineyard Village. The proposed project would not include any linear features such as new roadways or barriers which could physically divide an established community. Therefore, there would be **No Impact**.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Consistency issues between implementation of the proposed project and the County General Plan or other land use plans and policies (i.e., Vineyard Springs Comprehensive Plan) are related to land use regulations, which are, in part, based on avoiding or otherwise restricting uses that would adversely impact resources at the project site or adjacent land uses. While CEQA documents must discuss inconsistencies between proposed project and applicable plans, plan consistency is not generally a CEQA issue.

The project site has a land use designation of Low Density Residential (LDR) in the Sacramento County General Plan and is zoned AR-10 (Sacramento County 2018, 2024). The LDR designation provides for areas of predominantly single-family housing with some attached housing units. The AR-10 zoning district permits government and local agency buildings and uses. Additionally, the site is located within the Vineyard Springs Comprehensive Plan Area and the project site was identified as the location for a future proposed fire station in this plan (Sacramento County 2000).

The proposed project would support the County General Plan Public Facilities Element goal of providing efficient and effective fire protection and emergency response services to serve existing and new development (Sacramento County 2019). The proposed project would also support Vineyard Springs Comprehensive Plan Policy VS-29 to provide fire protection services and facilities within the Plan area at a level sufficient to address public health and safety needs (Sacramento County 2000). Consistent with zoning standards 3.6.3.A.5, because the project site is within 500 feet of a residential zoning district, the proposed project requires a Conditional Use Permit for development in this zone. Additionally, the proposed project is subject to a Design Review to determine substantial compliance with the Sacramento County Countywide Design Guidelines (Sacramento County 2022), which is further detailed in "Aesthetics".

All direct and reasonably foreseeable impacts associated with the proposed project are evaluated in this IS/MND in sections that are specific to each resource area (e.g., air quality, biological and cultural resources, noise, and transportation). These resource- specific sections provide a detailed analysis of all relevant physical environmental effects that could result from implementation of the proposed project, and identify mitigation measures, as necessary, to reduce impacts. There is no aspect of the project's consistency with relevant policies or code requirements that would lead to a significant adverse physical environmental effect that is not fully addressed in this IS/MND in the appropriate chapter.

Therefore, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and this impact is considered **Less than Significant**.

Environmental Mitigation Measures

None Required.

XII. MINERAL RESOURCES

Mineral Resources Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The Sacramento County General Plan does not delineate mineral resources on the project site or in the vicinity of the project site (O'Neal, M.D. and F.W. Gius. 2018).

IMPACT DISCUSSION

a. *Would the project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?*

Because the project site and vicinity do not contain known mineral resources, project development would not result in loss of availability of mineral resources. Therefore, there would be **No Impact**.

b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

As noted above, the Sacramento County General Plan does not delineate mineral resources on the project site or in the vicinity of the project site. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Thus, there would be **No Impact**.

ENVIRONMENTAL MITIGATION MEASURES

None Required

XIII. NOISE

Noise Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

SOUND, NOISE, AND ACOUSTICS

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as sound that is unwanted (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound.

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). The threshold of human hearing (near-total silence) is approximately 0 dB. A doubling of sound energy corresponds to an increase of 3 dB. In other words, when two sources at a given location are each producing sound of the same loudness, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one of the sources.

For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All noise levels reported in this section are in terms of A-weighting. There is a strong correlation between A-weighted sound levels and community response to noise. As discussed above, doubling sound energy results in a 3-dB increase in sound. In typical noisy environments, noise-level changes of 1 to 2 dB are generally not perceptible by the healthy human ear; however, people can begin to detect 3-dB increases in noise levels. An increase of 5 dB is generally perceived as distinctly noticeable and a 10-dB increase is generally perceived as a doubling of loudness. The following are the sound level descriptors commonly used in environmental noise analysis:

- Equivalent sound level (L_{eq}): An average of the sound energy occurring over a specified time period. In effect, the L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour, A-weighted equivalent sound level ($L_{eq}[h]$) is the energy average of A-weighted sound levels occurring during a 1-hour period.

- Maximum sound level (L_{max}): The highest instantaneous sound level measured during a specified period.

- L_{dn} (Day-Night Noise Level): The 24-hour L_{eq} with a 10 dB "penalty" applied during nighttime noise-sensitive hours, 10:00 p.m. through 7:00 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.

- Ln (Statistical Descriptor): The noise level exceeded n percent of a specific period of time, generally accepted as an hourly statistic. An L10 would be the noise level exceeded 10 % of the measurement period.

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source. Roadways and highways and, to some extent, moving trains consist of several localized noise sources on a defined path; these are treated as "line" sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Therefore, noise from a line source attenuates less with distance than noise from a point source with increased distance.

GROUNDBORNE VIBRATION

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 9 vibration decibels (VdB) for each doubling of distance from the source. This approach considers only the attenuation from geometric spreading and tends to provide for a conservative assessment of vibration level at the receiver.

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. Vibration typically is described by its peak and root-mean- square (RMS) amplitudes. The RMS value can be considered an average value over a given time interval. The peak vibration velocity is the same as the "peak particle velocity" (PPV), generally presented in units of inches per second. PPV is the maximum instantaneous positive or negative peak of the vibration signal and is generally used to assess the potential for damage to buildings and structures. The RMS amplitude typically is used to assess human annoyance to vibration, and the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

EXISTING NOISE ENVIRONMENT

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places, where people live, sleep, recreate, worship, and study, are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. The nearest existing noise-sensitive land uses that would potentially be affected by the project consist of schools, and single- and multi-family residential dwelling units.

The existing ambient noise environment within the vicinity of the project site is defined primarily by noise from traffic on Bradshaw Road, and by nearby residential and rural residential activities. Short-term (20 - 30 minute) ambient noise level measurements at three (3) locations, and one long-term (24 hour) measurement were conducted on January 14th to January 15th, 2025 to quantify the existing ambient noise environment within the vicinity of the project site. The locations of the noise survey sites are shown in Plate IS-14. The results of the noise survey are shown in Table IS-13. As shown, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 53 dBA to 68 dBA L_{eq}, and 64 to 83 dBA L_{max}. Day-night (L_{dn}) noise level in the project area was measured to be 60 dBA, L_{dn}.

Table IS-13: Summary of Ambient Noise Level Survey Results in the Vicinity of the Project Site – January 14-15, 2025

Site	Address	Date	Start Time	Duration	L_{eq} **Daytime (7 a.m.–10 p.m.)**	L_{max} Daytime (7 a.m.–10 p.m.)	L_{eq} **Nighttime (10 p.m.–7 a.m.)**	L_{max} Nighttime (10 p.m.–7 a.m.)	L_{dn}
LT-01	Project Site by Residences to the north	1/14 – 1/15	15:15	24 Hour	53.9	66.4	53.2	63.8	59.7
ST-01	Project Eastern Boundary by Residences to the North	1/14	15:24	30:30	53.4	64.1	NA	NA	NA
ST-02	Project Southern Boundary by Residence to the South	1/14	15:57	20:24	56.6	64.9	NA	NA	NA
ST-03	Project Western Boundary by Roadway and Residences to the North	1/14	16:20	20:01	68.0	82.5	NA	NA	NA

Notes: dBA = A-weighted decibels; L_{eq} = Equivalent Hourly Noise Level; L_{max} = maximum instantaneous sound level.

Larson Davis Laboratories (LDL) Model 824 and 820 precision integrating sound level meters were used to complete the noise level surveys. The meters were calibrated immediately before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4).

Source: Data compiled by AECOM 2025.

Plate IS-15: Project Site Ambient Noise Survey Locations

IMPACT DISCUSSION

a. Would the project generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

PROJECT CONSTRUCTION

During project construction, heavy equipment would be used for grading, excavation, paving, and structure construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project work area would also vary depending upon the proximity of equipment activities to that point.

The noise analysis utilized a spreadsheet model to estimate noise propagation from identified construction sources, incorporating adjustments for ground absorption and the presence of existing or planned noise barriers. The Federal Highway Administration (FHWA) Construction Noise Model was integrated into the spreadsheet format, allowing for detailed calculations of source noise levels, distance attenuation, barrier insertion loss, and ground effects to evaluate compliance with applicable noise thresholds.

Table IS-14 includes the range of maximum (L_{max}) noise levels for equipment commonly used in construction projects at full-power operation at a distance of 50 feet. Existing noise-sensitive uses would be located as close as 50 feet from the construction site.

Table IS-14: Reference and Projected Noise Levels for Typical Residential Construction Equipment

Construction Phase	Anticipated Type of Equipment that May Be Utilized by the Contractor*	L_{max}, dBA Noise Level at 50 Feet	L_{eq}, dBA Noise Level at 50 Feet
Site Preparation	Grader	85	81
Site Preparation	Backhoe	78	74
Site Preparation	Dozer	82	78
Site Preparation	**Max. and Combined Noise Level**	**85**	**83**
Demolition	Backhoe	78	74
Demolition	**Max. and Combined Noise Level**	**78**	**74**
Excavation	Excavator	81	77
Excavation	Dozer	82	78
Excavation	Backhoe	78	74
Excavation	**Max. and Combined Noise Level**	**82**	**81**
Grading	Grader	85	81
Grading	Backhoe	78	74
Grading	Excavator	81	77
Grading	Front End Loader	79	75
Grading	**Max. and Combined Noise Level**	**85**	**84**
Building Construction	Crane	81	73
Building Construction	Man Lift	75	68
Building Construction	Generator	81	78
Building Construction	Backhoe	78	74
Building Construction	Excavator	81	77
Building Construction	**Max. and Combined Noise Level**	**81**	**82**
Architectural Coating	Auger Drill Rig	84	77
Architectural Coating	Compressor (air)	78	74
Architectural Coating	**Max. and Combined Noise Level**	**84**	**79**
Paving	Concrete Mixer Truck	79	75
Paving	Paver	77	74
Paving	Compactor (ground)	83	76
Paving	Roller	80	73
Paving	Backhoe	78	74
Paving	**Max. and Combined Noise Level**	**83**	**82**

Notes: dBA = A-weighted decibels; L_{eq} = Equivalent Hourly Noise Level; L_{max} = maximum instantaneous sound level.

Source: FHWA 2006.

Sacramento County Municipal Code Section 6.68.090I exempts noise sources associated with construction activities provided such activities do not occur between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday and on each Sunday after the hour of 8:00 p.m.

Noise from project on-site construction activities would add to the noise environment in the immediate vicinity of the work area. In terms of determining the temporary noise increase due to project-related construction activities, an impact would occur if construction activity would noticeably increase ambient noise levels above background levels. The threshold of perception of the human ear is approximately 3 to 5 dB – a 5 dB change is considered to be clearly noticeable. For this analysis, a noticeable increase in ambient noise levels is assumed to occur where noise levels increase by 5 dB or more over existing ambient noise levels.

As shown in Table IS-13, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 53 dBA to 68 dBA L_{eq}, with maximum noise levels of 82.5 dBA. The increases in ambient noise levels from on-site project construction activities would be above the significance criterion of 5 dB (Caltrans 2013). Therefore, this impact would be potentially significant.

PROJECT OPERATIONS

EMERGENCY RESPONSE ACTIVITIES

The most significant operational noise source would be the use of fire engine sirens during emergency responses. Sirens can generate noise levels of up to 120 dBA at the source. However, the use of sirens is expected to be infrequent and brief, typically lasting less than one minute per incident.

APPARATUS BAYS

Noise from apparatus bays would primarily occur during emergency response activities, including vehicle startups, engine idling, and door operations. Typical noise levels from fire engines during these activities range from 60–65 dBA L_{eq} at 50 feet, the distance to the nearest residential use. These activities would occur intermittently and for short durations.

DORMITORIES, GENERAL LIVING AREAS, AND OFFICE SPACE

Noise from dormitories, general living areas, and office operations is expected to be minimal, as these spaces are enclosed and designed for indoor activities. Noise from these areas is not expected to exceed 50 dBA L_{eq} at 50 feet, well within Sacramento County's exterior noise limits for residential areas.

STORAGE FACILITIES

Storage facilities are anticipated to generate occasional noise from loading, unloading, and equipment retrieval. These activities would result in localized noise levels of 55–60 dBA L_{eq} at 50 feet. Noise from storage operations would be sporadic and unlikely to contribute significantly to overall noise levels.

EMERGENCY STANDBY GENERATOR

The emergency standby generator, attached to a 950-gallon diesel double-walled aboveground storage tank, would generate noise primarily during power outages or routine maintenance testing. Typical noise levels for similar generators are approximately 70–75 dBA at 50 feet without enclosure. Generator testing would occur periodically during daytime hours and for short durations, ensuring compliance with Sacramento County noise standards. Acoustic enclosures or placement away from residential uses would further reduce noise impacts.

COVERED TRUCK WASH AND SAND-OIL INTERCEPTOR

The covered truck wash, equipped with a sand-oil interceptor, would generate minimal noise primarily from water spraying equipment and vehicle movements. Noise levels are anticipated to be 55–60 dBA L_{eq} at 50 feet. The sand-oil interceptor would not produce any operational noise or hazardous waste and therefore would not contribute to ambient noise levels.

PUBLIC AND SECURED PARKING AREAS

Noise from parking areas would include vehicle movements, door closures, and occasional conversations. Typical noise levels from parking activities are 50–55 dBA L_{eq} at 50 feet. These noise levels are considered low and consistent with typical urban noise environments.

TRUCK FUELING (OFF-SITE)

Truck fueling would occur at an existing SMFD fuel storage location, and therefore, would not generate any on-site operational noise.

OVERALL STATION OPERATIONS

Day-to-day operations, including vehicle movements, door operations, Mechanical equipment, such as HVAC systems, generator, and maintenance activities, would generate localized noise levels of 60–75 dBA L_{eq} at 50 feet. A reference noise measurement was conducted at a similar fire station facility located at [12065 Cobble Brook Drive, Rancho Cordova], which operates under comparable conditions to the proposed project. The measured noise levels at the reference facility reached an average of 67 dB L_{eq} during typical operational activities, including emergency vehicle movements, station operations, and mechanical equipment usage. Additionally, the Day-Night Average Noise Level (L_{dn}) at the reference facility was measured at 57 dBA, accounting for nighttime operations and emergency responses. These measurements provide a reliable basis for assessing the potential operational noise levels of the proposed fire station and evaluating compliance with Sacramento County's noise standards at the nearest residential property lines.

COMPLIANCE WITH SACRAMENTO COUNTY NOISE STANDARDS

The Sacramento County General Plan Noise Element establishes the following exterior noise limits for residential properties:

- Daytime (7 AM–10 PM): 55 dBA L_{eq}
- Nighttime (10 PM–7 AM): 50 dBA L_{eq}

Emergency sirens are exempt from noise standards under the Sacramento County Noise Ordinance, as they are essential for public safety. The project's operational noise sources, excluding emergency sirens, would exceed these limits.

With respect to increase above ambient levels, as shown in Table IS-13, measured ambient noise levels at the noise-sensitive land uses closest to the project site range from 53 dBA to 68 dBA L_{eq}, and 64 to 83 dBA L_{max}. Day-night (L_{dn}) noise level in the project area was measured to be 60 dBA, L_{dn}. The increases in ambient noise levels from project operation would be above the applied significance criterion of 5 dB; therefore, this impact would be **Potentially Significant**.

To minimize potential noise impacts, mitigation measures N-1 for construction noise, and N-2 for operational noise, are required.

Construction noise Mitigation Measure N-1 would effectively reduce noise impacts through a combination of physical barriers, equipment modifications, scheduling strategies, and community notification. Installing 12-foot temporary noise barriers with sound-absorptive materials can reduce noise levels by up to 15 dBA, significantly shielding nearby residential properties. Requiring contractors to utilize the quietest available equipment, such as machinery with improved mufflers or electric motors, can further lower noise emissions by 5-10 dBA. Implementing a no-idling policy, which limits equipment idling to three minutes or less, prevents unnecessary background noise from diesel engines, which typically generate 65-75 dBA at 50 feet. Scheduling high-noise activities such as grading and demolition during mid-morning or early afternoon aligns with natural ambient noise levels, reducing perceptible disruption. Additionally, providing advance notification to residents about upcoming high-noise activities allows them to prepare, while a designated noise disturbance coordinator ensures that concerns are promptly addressed. Collectively, these measures contribute to a substantial reduction in construction noise, ensuring compliance with applicable noise thresholds and minimizing disturbances to nearby sensitive receptors.

Operational noise Mitigation Measure N-2 includes long-term noise reduction strategies. Enclosing HVAC units, generators, and other fixed equipment in acoustic enclosures, can achieve reductions of 10-20 dBA, ensuring compliance with Sacramento County's noise standards. Further mitigation includes scheduling generator maintenance and testing during daytime hours, accompanied by acoustic shielding, to prevent nighttime noise disturbances.

With implementation of the identified Mitigation Measures N-1 and N-2, construction and operational noise impacts would be **Less than Significant with Mitigation**. Emergency sirens, while generating high noise levels during operation, are exempt from noise standards as they are critical for emergency services.

b. Would the project generation of excessive groundborne vibration or groundborne noise levels?

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. The nearest existing sensitive structures have been identified as residential.

The heaviest vibration-generating construction equipment on-site would be a bulldozer. According to the Federal Transit Administration (FTA 2018), the vibration level for a bulldozer is 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels (VdB) at a reference distance of 25 feet. The nearest on-site structures to the construction activity are approximately

50 feet away. At this distance, the vibration levels are calculated to be approximately 0.031 in/sec PPV and 78 VdB. Similarly, off-site construction equipment would be rubber-tired equipment.

These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2020) with respect to the prevention of structural damage for normal buildings or the FTA's maximum-acceptable vibration standard of 80 VdB (Federal Transit Administration 2018) with respect to human annoyance for residential uses.

The project would not result in the exposure of persons to excessive groundborne vibration levels when in operation. These facilities do not typically have equipment that generates appreciable vibration. The project does not propose equipment that will produce appreciable vibration. Emergency vehicles similar to trucks would be used under project operation. According to the Federal Transit Administration (FTA 2018), vibration levels associated with the use of a loaded truck is 0.003 inches per second (in/sec) peak particle velocity (PPV) and 58 vibration decibels [VdB referenced to 1 microinch per second (µin/sec) and based on the root mean square (RMS) velocity amplitude] at 25 feet.

Because vibration levels due to and upon the proposed project are expected to satisfy the Caltrans groundborne impact vibration criteria, which the County has elected to evaluate potential effects of the proposed project in this IS/MND, this impact would be **Less than Significant**.

Environmental Mitigation Measures

Mitigation Measure N-1. Construction Noise Mitigation.

The project applicant shall implement the following measures, as feasible to reduce construction noise:

- Install temporary noise barriers (minimum 12 feet in height) along residential property lines, constructed with sound-absorptive materials.
- Require contractors to use the quietest equipment available, equipped with noise-reducing technologies such as improved mufflers or electric motors where feasible.
- Implement a no-idling policy, limiting equipment idling times to three minutes or less.
- Schedule high-noise activities (e.g., grading, demolition) during mid-morning or early afternoon hours to minimize disturbance during sensitive times for nearby residents.
- Provide written notification to residents at least one week in advance of high-noise activities, detailing the expected duration and nature of the noise.
- Designate a noise disturbance coordinator to address resident concerns promptly during construction.

Mitigation Measure N-2. Operational Noise Mitigation

The project applicant shall implement the following measures, as feasible to reduce operational noise:

- Enclose or shield HVAC units, generators, and other fixed equipment with acoustic enclosures or sound barriers to reduce operational noise levels to ensure compliance with Sacramento County's noise standards.

- Prior to final Project site operation, every emergency generator shall be tested for compliance with Sacramento County Noise Ordinance standards by a qualified environmental noise/acoustical consultant to determine if feasible noise reduction measures are needed to limit noise exposure to nearby residences.

XIV. POPULATION AND HOUSING

Population and Housing Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is within the area encompassed by the Vineyard Springs Comprehensive Plan (Sacramento County 2000). The proposed project would support the County General Plan Public Facilities Element goal of providing efficient and effective fire protection and emergency response services to serve existing and new development (Sacramento County 2019).

IMPACT DISCUSSION

a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The proposed project does not provide permanent housing or include operations that could result in unplanned growth such as extension of roadways or expansion of existing infrastructure. Construction jobs associated with the proposed project would be temporary and are anticipated to be filled by the existing local population. At full operation, the fire station is anticipated to result in eight operational jobs; these operational jobs would be long-term but are also expected to be filled by local fire fighters. If residents outside the local area are required to fill any operational positions, the increase in population would be nominal. Dorm facilities provided by the fire station would be temporary facilities to account for the long shifts associated with fire-fighting operations and are not considered housing that would result in population growth. Thus, the proposed project would not induce substantial unplanned population growth and there would be **No Impact**.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project would be built on vacant land. Because there are no residences within the project site, the project would not displace people or housing and would not necessitate the construction of replacement housing elsewhere. Thus, there would be **No Impact.**

ENVIRONMENTAL MITIGATION MEASURES

None required.

XV. PUBLIC SERVICES

Public Services Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Fire protection for the project would be provided by Sacramento Metropolitan Fire District. Police protection services for the project would be provided by Sacramento County Sherriff's Department.

The closest public park is Ted Klein Park, approximately 400 feet to the northeast.

The nearest school is approximately 1,700 feet to the northwest of the proposed development area and a daycare center is located approximately 1,300 feet northeast of the proposed development area.

IMPACT DISCUSSION

a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*

Fire protection?

The proposed project itself involves construction of a new fire station that would provide improved fire protection services to the Vineyard area. Physical environmental impacts associated with construction and operation of the fire station are evaluated throughout each topic area in this Initial Study and range from No Impact to Less than Significant with Mitigation.

Police protection?

As described under Item 14, Population and Housing, the proposed project would not result in an increase in unplanned population. Additionally, temporary construction jobs and long-term operational jobs are anticipated to be filled by members of the local workforce. Therefore, the proposed project will not result in an increase in need for police protection services. Additionally, the proposed project would construct a new fire station, which would help the County meet emergency response goals related to fire response and emergency medical services. Thus, the proposed project would help maintain acceptable service ratios, response times, and other performance objectives for police protection. Therefore, there would be **No Impact**.

Schools?

The proposed project will not require the use of public school services. There would be **No Impact.**

Parks?

The proposed project will not affect the provision of park services. There would be **No Impact.**

Other public facilities?

The proposed project will not affect the provision of park services. There would be **No Impact.**

ENVIRONMENTAL MITIGATION MEASURES

None required.

XVI. RECREATION

Recreation Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

A small public park (Ted Klein Park, zoned Open Space) is present approximately 400 feet to the northeast. There are no trails used for recreation within the project property.

IMPACT DISCUSSION

a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

As previously discussed, the proposed project does not provide permanent housing and therefore would not contribute to the increased use of existing neighborhood or regional parks or other recreational facilities and would not cause a substantial deterioration of the facilities. Therefore, there is **No Impact.**

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Recreational facilities included in the fire station would be solely for the use of onsite personnel and would not require expansion of existing recreational facilities. Construction of the fire station, including the on-site private recreational facilities, are evaluated throughout each topic area in this Initial Study. Therefore, there is **No Impact**.

ENVIRONMENTAL MITIGATION MEASURES

None required.

XVII. TRANSPORTATION

Transportation Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed project site is southeast of the intersection of Bradshaw Road and Vintage Park Drive and consists of one currently undeveloped parcel (122-0140-010). The closest regional roadway to the project site is State Highway 99, approximately 4 miles to the west. The two major roadways in the project area are Bradshaw Road and Vintage Park Drive.

Bradshaw Road is a four-lane, north-south arterial that extends from Mira Del Rio Drive in the north to Grant Line Road in the south. Bradshaw Road is adjacent to the western portion of the proposed project site. Vintage Park Drive is a four-lane, east-west arterial that extends from the Vineyard Springs Development adjacent to the project site west to Calvine Road. Vintage Park Drive is adjacent to the northern portion of the proposed project site. Bradshaw Road includes existing Class II bike lanes and north of the project site, includes a continuous sidewalk along the northbound travel lanes. Sidewalks on the project site frontage along Bradshaw Road are not continuous. Vintage Park Drive includes existing Class II bike lanes and continuous sidewalks within the Bradshaw Vineyard Village development and spanning the eastbound travel lanes west of Bradshaw Road.

Elk Grove Transit (e-Tran) (operated by Sacramento Regional Transit) provides fixed route transit service near the project site. The nearest bus stops to the project site are via Route 19, located on northbound Bradshaw Road north of Vintage Park Drive, and on southbound Bradshaw Road south of Vintage Park Drive across the street to the project site.

Collision history data for the project area was obtained from the Statewide Integrated Traffic Records System for Bradshaw Road and Vintage Park Drive. Between 2021 and 2023, three collisions occurred at the intersection of Bradshaw Road and Vintage Park Drive, three occurred on Bradshaw Road within one-half mile of the project site, and three occurred on Vintage Park

Drive within one-half mile of the project site. Of these, no collisions involved bicyclists or pedestrians, and none resulted in fatalities. One collision resulted in a severe injury.

REGULATORY SETTING

Senate Bill 743 (SB 743), signed into law in 2013, established a fundamental shift in how transportation impacts are evaluated under the California Environmental Quality Act (CEQA). Effective July 1, 2020, lead agencies must use vehicle miles traveled (VMT), rather than level of service (LOS), as the metric for determining the significance of transportation impacts. This change supports statewide goals to reduce greenhouse gas emissions, encourage infill development, and promote multimodal transportation systems.

The Governor's Office of Planning and Research (OPR) developed technical guidance on VMT analysis, including screening criteria and significance thresholds, which have been used by local agencies to develop tailored methodologies. In response, Sacramento County adopted the Sacramento County Transportation Analysis Guidelines (2020) to provide project-level procedures, thresholds of significance, and screening criteria for transportation impact analysis under CEQA.

The County's guidelines identify the following screening criteria under which a project is presumed to result in a less-than-significant VMT impact:

- Small projects that generate fewer than 237 average daily trips (ADT)
- Projects located in low-VMT areas, based on modeling by the Sacramento Area Council of Governments (SACOG)
- Projects within a Transit Priority Area (TPA) with high-quality transit service
- Local-serving land uses, including public facilities that reduce regional trip lengths
- Projects consistent with the Sustainable Communities Strategy (SCS) adopted by SACOG

APPLICABILITY TO THE PROPOSED PROJECT

The proposed fire station is expected to generate approximately 62 daily trips, inclusive of both staff and emergency vehicle operations (Sacramento County, 2023). As this is well below the County's 237 ADT threshold for small projects, the project qualifies for VMT screening under the Sacramento County Transportation Analysis Guidelines. Therefore, the project is presumed to have a less-than-significant impact on VMT under CEQA.

Additionally, the project is consistent with broader transportation planning documents:

The Sacramento County General Plan Circulation Element includes goals to provide a balanced and integrated roadway system that maximizes the mobility of people and goods in a safe and efficient manner (Sacramento County, 2022a).

The Sacramento County Active Transportation Plan (ATP) (Sacramento County, 2022b) promotes infrastructure improvements for pedestrians and cyclists, which align with multimodal and infill-supportive goals.

The project is also consistent with the Sustainable Communities Strategy included in SACOG's 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which supports compact urban development and reduced regional VMT.

IMPACT DISCUSSION

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

ROADWAY FACILITIES

Primary access to the project site would be provided by two new driveways along Bradshaw Road. Consistent with Sacramento County Department of Transportation requirements, a secondary access road would be installed from the back of the new fire station to connect with Cider Way in Bradshaw Vineyard Village; this secondary access road would be gated and used primarily for ingress of returning fire trucks and egress only for emergency situations.

The project would not alter the existing roadway network. As noted in Impact b) below, the project would contribute approximately 62 total daily trips to the roadway network. The County General Plan Circulation Element contains a goal to provide a balanced and integrated roadway system that maximizes the mobility of people and goods in a safe and efficient manner (Sacramento County 2022a). The proposed project would not conflict with this goal because it would not alter the existing roadway network. Therefore, the proposed project would not conflict with policies addressing the circulation system and impacts would be **Less than Significant**.

BICYCLE AND PEDESTRIAN FACILITIES

There are existing bicycle lanes along Bradshaw Road, including along the project site frontage. As described in the Sacramento County Active Transportation Plan (ATP) (Sacramento County 2022b), a buffered bicycle lane is recommended along Bradshaw Road between Elder Creek Road and Calvine Road. Additionally, the proposed project would construct pedestrian facilities in the form of a sidewalk on the project site frontage on Bradshaw Road. The project would not alter or conflict with existing or proposed bicycle facilities in the vicinity of the project site, nor programs or plans related to bicycle and pedestrian facilities, such as the ATP or the County General Plan. Therefore, this impact would be **Less than Significant**.

TRANSIT FACILITIES

Transit facilities in the project vicinity include the e-Tran bus route 19 providing service from Sacramento to Elk Grove. The route uses Bradshaw Road fronting the project site and would not be affected by project construction, including temporary lane closures, or operation. The County General Plan Circulation element includes policies aimed to promote a balanced and integrated transit system to maximize mobility. The proposed project would not interfere with existing transit facilities or conflict with planned transit facilities or adopted transit system plans, including the Sacramento County General Plan and the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy. Therefore, the proposed project would not conflict with plans or policies addressing transit facilities and impacts would be **Less than Significant**.

SUMMARY

For the reasons discussed above, the project would not conflict with any program, plan, ordinance, or policy related to the circulation system that would lead to any significant adverse physical environmental impact. The impact is **Less than Significant**.

b. Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) – measuring transportation impacts individually or cumulatively, using a vehicles miles traveled standard established by the County?

The project was screened from further VMT analysis based on the Sacramento County Transportation Analysis Guidelines screening criteria for small projects, which are defined as projects generating less than 237 average daily trips (Sacramento County 2020). A project below this screening criteria is expected to result in a less than significant VMT impact.

The project is estimated to generate 62 daily trips, which is inclusive of fire station personnel trips and fire truck calls (Sacramento County 2023). Therefore, the proposed project would meet the small project screening criteria and VMT impacts would be **Less than Significant**.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

All project elements would be designed and constructed in compliance with County of Sacramento design standards, including signage, speed limits, and crosswalk markings on driveways, which would ensure adequate sight distance and reduce the potential for conflict. Because the proposed project is a fire station, it is designed to accommodate fire apparatus and provide adequate emergency vehicle turning radius. As such, the project would not result in a hazardous geometric design. Additionally, the project site is surrounded by a mix of residential and currently undeveloped uses. The proposed fire station is a public use that would not be considered an incompatible land use in the area and does not propose a use that would bring unusual equipment on the roadways. Therefore, no increase in hazards or incompatible uses would occur, and the impact associated with operation would be **Less than Significant**.

d. Would the project result in inadequate emergency access?

Emergency vehicle access to the project site would be provided via the proposed driveway on Bradshaw Road connected to the parking lot. Fire vehicles exiting the site would use a second proposed driveway on Bradshaw Road from the station apparatus bay or the secondary access road on Cider Way in emergency situations, and returning fire vehicles would access the site through the secondary access road on Cider Way. The project site and design features would accommodate emergency vehicles, including the fire apparatus. Additionally, the proposed project would be subject to Design Review for consistency with the Sacramento County Countywide Design Guidelines. Therefore, impacts related to emergency access would be **Less than Significant.**

ENVIRONMENTAL MITIGATION MEASURES

None required.

XVIII. TRIBAL CULTURAL RESOURCES

Tribal Cultural Resources Checklist

Would the project:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Tribal Cultural Resources (TCRs) include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to California Native American tribes. Tribal cultural resources may contain physical cultural remains or may be places within a landscape such as gathering places, sacred sites, landscape features, plants, or other locations that help maintain religious and cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institution of a living tribal community. This category of resources under CEQA is intended to recognize that tribes have unique knowledge and information about sensitive resources important to the self-identity of tribal communities and can only be identified by members of the Native American community, thus requiring consultation under CEQA.

REGULATORY SETTING

Assembly Bill (AB) 52 (effective July 1, 2015) added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to CEQA, relating to consultation with California Native American tribes, consideration of tribal cultural resources and confidentiality. AB 52 provides procedural and substantive requirements for lead agency consultation with California Native American tribes and consideration of effects on tribal cultural resources, as well as examples of mitigation measures to avoid or minimize impacts to TCRs. AB

52 establishes that if a project may cause a substantial adverse change in the significance of a tribal cultural resource, that project may have a significant effect on the environment. Lead agencies must avoid damaging effects to tribal cultural resources, when feasible, and shall keep information submitted by tribes confidential.

AB 52 requires consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, if the tribe requested, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation. Public Resources Code Section 21080.3.1(d) states that within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project location and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to requests consultation pursuant to this section.

SACRED LANDS SEARCH

On August 4, 2023, Pacific Legacy requested that the Native American Heritage Commission (NAHC) conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on August 29, 2023, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the project area.

NATIVE AMERICAN INPUT

On September 1, 2023, Pacific Legacy sent letters on behalf of Sacramento County as the lead CEQA agency to seven federally recognized Native American tribes and two non-federally recognized Native American tribes recommended by the NAHC as potential sources of information, or concern, related to cultural resources in the vicinity of the project area. To date one tribal representative from the Wilton Rancheria, Vanesa Kremer, Lead Monitor and Cultural Resource Assistant, replied to Pacific Legacy on September 6, 2023, via email, confirming the project will be located within the tribe's ancestral and culturally affiliated territory. A request for formal consultation was made due to the proximity of the project to Laguna Creek and Wilton's original Rancheria. Miss Kremer also requested a virtual meeting with Pacific Legacy staff to discuss project details and convey their concerns about the project and also sent a copy of the tribe's Inadvertent Discovery Treatment Plan to be forwarded to the project proponent for their construction protocols. Letters and a communication log through September 6, 2023, are provided in Appendix C of Pacific Legacy's Phase I Archaeological Survey Report prepared for this project in February 2024 (Pacific Legacy 2024).

On April 16, 2024, the County sent letters to Gene Whitehouse, Chairperson, United Auburn Indian Community (UAIC); the Cultural Committee Chair of the Ione Band of Miwok Indians; and Steven Hutchason, Wilton Rancheria Tribal Historic Preservation Officer (THPO), informing them of the project and providing a formal invitation to consult under AB 52. The same letter was emailed by the County to the recipients on April 18, 2024. An email receipt response email was received on April 18, 2024 from UAIC.

Through prior communication, Wilton Rancheria had requested consultation through the consultant (Pacific Legacy) who conducted the Cultural Resource Assessment on April 18th, 2024.

Then on May 6, 2024, Sacramento County Archaeologist Candise Vogel, M.A., R.P.A, accompanied Tribal Monitor for Wilton Rancheria Tecante Williams for a tribal survey of the project site. They surveyed the project site in 15 meter transects and Mr. Williams took photographs of Laguna Creek north of the project site for his records. No Tribal Cultural Resources were observed on surface during survey. Mr. Williams expressed concern with the proximity to Laguna Creek and felt that there is an increased likelihood for subsurface inadvertent discoveries. He told Ms. Vogel that he would recommend construction monitoring to his supervisors. The County received confirmation from Wilton Rancheria at their monthly consultation meeting on May 14th, 2024, they would like to have tribal monitors on-site for construction and for the County to include inadvertent discoveries and human remains protocols as mitigations in the document. Wilton Rancheria closed consultation with the County on the same day with the agreement (Candise Vogel, personal correspondence, January 3, 2025).

There were no further tribal inquiries from the AB 52 Native American consultation.

Although no TCRs were identified during field survey, tribal survey, NCIC records search, NAHC SLF search, and Native American consultation, it cannot be ruled out that unanticipated TCRs could be encountered during ground-disturbance activities that are part of project construction. This impact would be potentially significant. Application of the County's standard mitigation procedures for inadvertent discoveries and human remains protocols has been applied to this project to reduce potential impacts to tribal cultural resources and are provided below as Mitigation Measure TCR-1. Compensated Construction Monitoring by Official Tribal Monitor was provided by Wilton Rancheria and is provided below as Mitigation Measure TCR-2.

IMPACT DISCUSSION

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

    i. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

    ii. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Under Public Resources Code Section 21084.3, public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources (21080.3.1[a]).

While there is no evidence of tribal cultural resources present within the project area, the project could uncover and adversely impact undiscovered tribal cultural resources during construction. This impact would be **Potentially Significant**.

However, with implementation of Mitigation Measures TCR-1 and TCR-2, impacts to tribal cultural resources would be avoided and minimized, reducing the impact to **Less than Significant with Mitigation**. Mitigation Measure TCR-1 outlines the required procedure if human remains, tribal cultural resources, and cultural resources are found during construction, including guidance around stopping work and who to notify. Mitigation Measure TCR-2 outlines the required communication protocols and procedures for construction monitoring by an official tribal monitor.

Environmental Mitigation Measures

Mitigation Measure TCR-1: Inadvertent Discoveries of Tribal Cultural Resources

In the event that human remains are discovered in any location other than a dedicated cemetery, work shall be halted, and the County Coroner contacted. For all other potential tribal cultural resources [TCRs], archaeological, or cultural resources discovered during project's ground disturbing activities, work shall be halted until a qualified archaeologist and/or tribal representative may evaluate the resource.

1. **Unanticipated human remains**. Pursuant to Sections 5097.97 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop, and the County Coroner and the Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.

2. **Unanticipated cultural resources**. In the event of an inadvertent discovery of cultural resources (excluding human remains) during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

    a. Work cannot continue within the 100-foot radius of the discovery site until the archaeologist and/or tribal monitor conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

    b. If a potentially eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall

arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the County Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

Mitigation Measure TCR-2: Compensated Construction Monitoring by Official Tribal Monitor

The following measure is intended to minimize impacts to existing and/or previously undiscovered TCRs. The total time commitment of the Tribal Monitor(s) will vary depending on the intensity and location of construction and the sensitivity of the area.

The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities:

1. The project proponent shall contact the Wilton Rancheria THPO (cpd@wiltonrancheria-nsn.gov) at least 2 months, if feasible, prior to project ground-disturbing activities to retain the services of a Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.
2. A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground-disturbing activities in the project area. All ground-disturbing activities, including rebuild or previously disturbed, shall be subject to Tribal Monitoring unless otherwise determined unnecessary by the Wilton Rancheria.
3. Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource.

- Appropriate treatment of TCRs may include but is not limited to:
    a. Recordation of the resource(s)
    b. Avoidance and preservation of the resource(s)
    c. Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no future disturbance. The location of the reburial shall be acceptable to the Wilton Rancheria.
    d. Further instructions shall be referenced in the project Tribal Monitoring Plan.

3. To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.
4. The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.
5. The Tribal Monitor, in consultation with the Wilton Rancheria THPO and the project proponent shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.

6. In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24 hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.
7. The CEQA lead shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.

XIX. UTILITIES AND SERVICE SYSTEMS

Utilities and Service Systems Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?	☐	☐	☒	☐
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?	☐	☐	☒	☐
g. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐

ENVIRONMENTAL SETTING

Water would be supplied by the Sacramento County Water Agency (SCWA), Zone 40. New on-site water supply lines would be installed, which would connect to an existing off-site water supply line to the north within Goldenleaf Way.

New on-site wastewater conveyance lines would be installed according to Sacramento Area Sewer District standards and specifications and would connect to an existing off-site 8-inch wastewater line in Goldenleaf Way that discharges to an existing 15-inch wastewater line in Vintage Park Drive. Wastewater conveyance and treatment would be provided by the Sacramento Area Sewer District, a publicly owned sewer collection system that provides wastewater collection and treatment services to approximately 386 square miles of the greater Sacramento area, SacSewer's local conveyance lines tie into larger regional interceptor lines that convey wastewater directly to the EchoWater Resource Recovery Facility, which is located east of the Sacramento River near Freeport. The recently completed upgrades and improvements enable the EchoWater Facility to produce 135 million gallons per day (mgd) of tertiary-treated water, which will contribute to increased recycled water use (thereby reducing water demand) throughout the region (SacSewer 2023a).

Electrical service would be provided by the Sacramento Metropolitan Utility District (SMUD). Existing underground 12-kV electrical lines are located along the project site's northern boundary. Existing overhead electrical lines are along the west side of Bradshaw Road. The project applicant would coordinate with SMUD to determine the appropriate location for connection to new on-site electrical lines, which would be installed underground.

Natural gas service is not anticipated to be required for the proposed project.

IMPACT DISCUSSION

a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The proposed project would include new development that requires new or expanded municipal water, wastewater treatment, storm water drainage, and electrical service. Further discussion of stormwater management facilities and impacts is in the Hydrology and Water Quality section. Construction and expansion of water supply, wastewater, stormwater drainage, and electrical facilities would result in physical environmental impacts that are addressed in each technical section of this IS/MND, as appropriate. Where development of the project would result in potentially significant or significant environmental impacts, mitigation measures are identified to reduce those impacts. There are no additional potentially significant or significant impacts associated with construction of the proposed project beyond those comprehensively considered throughout the other sections of this IS/MND. Therefore, impacts related to relocation of existing utility infrastructure, or construction of new or expanded utility infrastructure, would be **Less than Significant.**

b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

Zone 41 was created by the Water Agency Board of Directors on June 13, 2000 pursuant to Resolution WA-2397, and constituted a reorganization of the Sacramento County Water Maintenance District. Zone 41 funds the operation and maintenance of a public drinking water system that includes water production, treatment, storage and distribution facilities, pursuant to permits issued by the California Department of Health Services. Revenue to fund Zone 41 activities is provided by utility charges, connection permit fees, construction water permits, and grants - all of which fund Water Supply Capital Facilities Design and Water Supply Facilities Operations and Administration.

Zone 41 also provides wholesale water supply to the Elk Grove Water Service pursuant to the First Amended and Restated Master Water Agreement Between Sacramento County Water Agency and Florin Resources Conservation District/Elk Grove Water Service, June 28, 2002. The SCWA service areas have over 59,000 customer water service connections and includes interconnected infrastructure facilities that facilitate the use of a diversity of water supplies. (Tully & Young 2021). Each of SCWA's seven service areas are served with a unique set of water supplies, including potable and non-potable surface water supplies, and groundwater. Each of the seven SCWA service areas have long-term water reliability in normal, single dry years, and five consecutive dry years through 2045. Therefore, the project would have a sufficient and reliable source of water supplies available, resulting in a **Less than Significant Impact.**

c. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The project includes one new public building and an associated truck wash bay which would increase the demand for wastewater conveyance and treatment within the SacSewer service area. Based on the formulas used by SacSewer for calculation of estimated sewer flows (SacSewer 2021), the proposed fire station (commercial) building at the project site would generate a total of approximately 1,600 gallons per day (gal/day) of wastewater. For purposes of this analysis, it is assumed that the truck wash would use recycled wash water.

SacSewer owns and operates a 15-inch sewer gravity main in Vintage Park Drive near the project site. The proposed project would include installation of on-site underground wastewater collection pipelines that would tie into the existing off-site SacSewer gravity main. The sewer gravity mains in the project area were not identified by SacSewer in its System Capacity Plan as a relief- area problem that requires an improvement under future projected conditions that consider planned development in the region (SacSewer 2020).

SacSewer's EchoWater Facility is permitted to discharge an average dry-weather flow of 181 mgd of treated wastewater to the Sacramento River (Central Valley Regional Water Quality Control Board 2021). SacSewer expects per capita consumption to fall 25 percent in the future through the ongoing installation and use of water meters and compliance with conservation mandates such as the state Water Conservation Act of 2009 (SB X7-7). Therefore, SacSewer expects that water conservation measures throughout its service area would allow the existing 181 mgd average dry-weather flow capacity to be adequate for at least 40 years (Ascent Environmental 2014:6-2) ",and this impact would be **Less Than Significant**.

d. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of the proposed project would result in site clearing and generation of various construction-related waste, cardboard, wood pallets, scrap metal, and common trash. The construction contractor would be required to comply with the California Green Building Code (CALGreen) Code. The updated standards included in the CALGreen (Title 24, Part 11 of the California Code of Regulations) became effective on January 1, 2023. The CALGreen Code requires that at least 65 percent of construction and demolition waste be diverted from landfills. A Waste Management Plan must be approved that identifies a waste hauler and a construction and demolition sorting facility and waste log must document the 65 percent diversion requirement. Construction debris would be recycled at local facilities identified by Sacramento County DWMR as certified construction and demolition debris sorting facilities, which may include the Florin Perkins Public Disposal Center or the L&D Landfill, or other permitted facilities at the discretion of the contractor(s).

Operation of the fire station would result in the generation of additional solid waste. Assuming 8 employees at fire station and a 2021 solid-waste disposal generation rate of 15.7 pounds per employee per day (CalRecycle 2021), project operations could generate a total of 126 pounds of solid waste per day. This estimate is conservative (high) because required recycling and waste diversion would reduce this amount and is likely to increasingly reduce the waste stream that is sent to landfills in the future as more restrictive regulations require diversion of larger fractions of the waste stream.

Commercial waste, recycling, and organics collection services are provided by Sacramento County DWMR's local franchised waste haulers (DWMR 2023d). All businesses are required to have their garbage collected at least once every 7 days pursuant to Sacramento County Code Title 6, Chapter 6.20, Section 6.20.115. The Elder Creek Transfer and Recovery Station in Sacramento (approximately 5 miles north of the project site) is the closest facility that accepts standard business and household wastes. Waste from the Elder Creek Recovery Station is transferred to Kiefer Landfill.

Because the regional solid waste facilities have capacity to receive project waste (CalRecycle, 2025) during the construction and operational phases, and because Sacramento County DWMR's recycling program would be available to the new project site, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, is impact is considered **Less than Significant**.

e. Would the project result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?

The proposed project would include installation of a new on-site stormwater drainage system. The drainage system would include underground collection pipes, and a series of six biofiltration planter areas (2,645 square feet total) designed to provide stormwater quality detention and pretreatment as part of the project's Low Impact Development design. From the biofiltration areas, stormwater would be routed to one of three discharge points to existing off-site storm drainage infrastructure owned by the Sacramento County Department of Water Resources: one discharge point to the north into an existing underground drainage line within Goldenleaf Way, and two discharge points to the west into an existing underground drainage line within Bradshaw Road. In addition, a new culvert would be installed at the southwestern property boundary to direct flood flows from the Laguna Creek floodplain into the existing Bradshaw Road drainage line. The project's storm water facilities will not result in substantial adverse impacts to the exiting surrounding stormwater system, thus resulting in a **Less than Significant** impact.

f. Would the project result in substantial adverse physical impacts associated with the provision of electric or natural gas service?

The project's electric service would connect to existing SMUD electrical lines located in adjacent streets, and not result in substantial physical impacts, resulting in a **Less than Significant Impact**.

g. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As discussed above under threshold d), the proposed project would comply with all applicable solid waste statutes and regulations, including CALGreen. Thus, there would be **No Impact.**

ENVIRONMENTAL MITIGATION MEASURES

Not required.

XX. WILDFIRE

Wildfire Checklist

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The terrain at the project site is flat and open (grassland) and the site is surrounded by residential and rural agricultural/residential land uses. The project site is not situated in a high-risk wildfire hazard zone (California Department of Forestry and Fire Protection 2024). The nearest fire hazard severity zone is in a State Responsibility Area and is rated by CAL FIRE as "moderate" (approximately 8 miles east of the project site). There are no designated fire hazard severity zones

in a Local Responsibility Area within 15 miles of the project site. The proposed project consists of a new fire station that would provide a benefit to the community in terms of increased fire protection services.

IMPACT DISCUSSION

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Any necessary emergency evacuations in the area surrounding the project site would be coordinated by Sacramento County officials through the County Office of Emergency Services (OES). The project site is in Evacuation Zone 65 - Vineyard. The primary evacuation routes in the project area include Bradshaw Road, Gerber Road, Vintage Park Drive, and Calvine Road among others (Sacramento County OES 2024). The Sacramento Metropolitan Fire Department, which would operate the site as a fire station, is a partner, along with local law enforcement officials and the Sacramento County Department of Transportation, with the Sacramento County OES and would help to implement the Sacramento County Evacuation Plan (Sacramento County OES 2018). Furthermore, the fire station would be directly involved in providing fire suppression services if a fire were to occur in the project area.

The new fire station's primary access would be to the west from Bradshaw Road. In addition, emergency site access would be installed to the north by providing a connection to Vintage Park Drive via Cider Way (see Plate IS-3 in Chapter 2, "Project Description"). Thus, the proposed design for development at the project site includes an appropriate circulation network that meets Sacramento County standards for emergency access. Therefore, development of the project site would not substantially impair emergency access or implementation of an emergency evacuation plan, and this impact would be **Less than Significant**.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The terrain at the project site is flat and open (grassland) and the site is surrounded by residential and rural agricultural/residential land uses. The project site is not situated in a high-risk wildfire hazard zone (California Department of Forestry and Fire Protection 2024). The proposed project consists of a new fire station that would provide a benefit to the community in terms of increased fire protection services. Therefore, there would be **No Impact**.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project includes landscaping around the station perimeter that would require periodic maintenance that would be conducted with hand tools to prevent any sparks that could ignite the nearby grasses. The remainder of the project development has no associated infrastructure or utilities that could exacerbate fire risk or result in temporary or ongoing impacts to the environment. Therefore. This impact is **Less than Significant**.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The terrain at the project site is relatively flat and the slope graded through portions of the floodplain will be very gradual (3 feet over 500 ft.) leading from the fire station to new storm water drainage outlets. Thus, the project has a **Less than Significant** impact of exposing people or structures to significant risk as a result of runoff, post-fire slope instability, or drainage changes.

ENVIRONMENTAL MITIGATION MEASURES

None required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Mandatory Findings of Significance Checklist

Would the project:	**Potentially Significant**	**Less than Significant with Mitigation**	**Less than Significant**	**No Impact**
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

IMPACT DISCUSSION

a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant with Mitigation. As described in in Biological Resources, implementation of Mitigation Measures BIO-1 which includes participation in the SSHCP for its mitigation requirements, BIO-2 for migratory nesting birds, and BIO-3 and BIO-4 for native oak trees, would

reduce to a less-than-significant level impacts on special-status plants, vernal pool habitat, western pond turtle, giant garter snake, western spadefoot, Swainson's hawk, burrowing owl, special-status raptors, tri-colored blackbird, migratory nesting birds, special-status bats, the Laguna Creek wildlife corridor, and native oak trees. As discussed in Cultural Resources and Tribal Cultural Resources, implementation of Mitigation Measure CUL-1, TRC-1, and TRC-2 would reduce potentially significant impacts resulting from inadvertent damage or destruction of significant cultural resources and accidental discovery of human remains to a less-than-significant level. As discussed in Geology and Soils, implementation of Mitigation Measure GEO-1 would reduce destruction of or damage to previously unknown unique, scientifically important paleontological resources to a less-than-significant level. Therefore, with implementation of outlined mitigation measures, the proposed project would result in less-than-significant impacts involving the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major period of California history or prehistory.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The geographic context for cumulative impacts is generally limited to the immediate vicinity of the project site with the exception of air quality and greenhouse gas impacts, which are more regional. Past, present, and foreseeable future projects in the vicinity of the project site include the following according to the Sacramento County Planning and Environmental Review website, there are no in-progress or recently approved Major Development Projects within 10 miles of the project site. The County's Planning Projects Viewer indicates the following development applications in progress approximately 3-5 miles north of the project site within the unincorporated Vineyard community:

- Gerber South Project at 9132 Gerber Road, Sacramento. The description is SSHCP compliance for the Gerber South Subdivision. The project status is Pre-Application.

- CCTS NVS Rail Crossings Project at 9437 Gerber Road, Sacramento. The description is SSHCP compliance, and the project status is Pre-Application.

- Sapphire Subdivision Project at 9836 Florin Road, Sacramento. The description is SSHCP compliance, and the project status is Pre-Application.

The development application approval and construction schedules for these projects is not indicated for comparison with the project's construction schedule for cumulative impact analysis.

Air quality and greenhouse gas impacts are inherently cumulative by nature, and the impact discussions in Air Quality and Greenhouse Gas Emissions already consider potential cumulative impacts, which were found to be **Less than Significant** or **Less than Significant with Mitigation.** As described in the Air Quality and Greenhouse Gas Emissions sections, implementation of Mitigation Measures AQ-1, AQ-2, and GHG-1 would reduce to a less than significant level construction and operational air quality and GHG impacts using SMAQMD - recommended BMPs and Basic Construction Emissions Control Practices.

Because the majority of project impacts would be short-term, localized impacts that would only occur during the approximately 24-month construction period of project implementation, and because none of the past or future projects would overlap with that implementation period, there would be no potential for short-term impacts such as disturbance of wildlife species, construction noise, water quality, or traffic safety to combine with the impacts of other projects to cause a significant cumulative impact.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. As described in Noise, implementation of Mitigation Measures N-1 and N-2 would reduce to a less-than-significant level construction noise and operational noise impacts to nearby residential sensitive receptors. Therefore, with implementation of outlined mitigation measures, the proposed project would result in less-than-significant impacts involving potential environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly.

ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures ensure that identified significant impacts of the project are reduced to a level of less than significant. Pursuant to Section 15074.1(b) of the CEQA Guidelines, each of these measures must be adopted exactly as written unless both of the following occur: (1) A public hearing is held on the proposed changes; (2) The hearing body adopts a written finding that the new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.

MITIGATION MEASURE COMPLIANCE

Comply with the Mitigation Monitoring and Reporting Program for this project, including the payment of 100 percent of the Office of Planning and Environmental Review staff costs, and the costs of any technical consultant services incurred during implementation of that Program.

LIST OF PREPARERS

LEAD AGENCY – SACRAMENTO COUNTY DEPARTMENT OF PLANNING AND ENVIRONMENTAL REVIEW

Environmental Coordinator	Julie Newton
Senior Planner	Alison Little
Associate Planner	John Barnard IV

CONSULTANT - AECOM

Project Director:	Matthew Gerken
Project Manager:	Jed McLaughlin

SUPPORT STAFF

Wendy Copeland	Aesthetics, Geology and Soils, Paleontology, Hazards and Hazardous Materials, Hydrology and Water Quality, and Utilities and Service Systems
Alexandra Haisley	Air Quality, Energy, Greenhouse Gas Emissions, Land Use, Population and Housing, Public Services, Recreation, Transportation, Wildfire
Heather Miller	Cultural Resources
Mohammad Issa Mahmodi	Noise and Vibration
Shannon Henke	Biological Resources
Renee Richardson	Biological Resources
Heather Miller	Tribal Cultural Resources
Deborah Jew	Document Processing
Lisa Clement	GIS
Ann Campbell	Graphics

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APPENDIX A

CalEEMod Air Quality Model Outputs
(Provided Under Separate Cover)

APPENDIX B

South Sacramento Habitat Conservation Plan Avoidance and Mitigation Measures
(Provided Under Separate Cover)