

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

FOR THE

FERRARI RANCH ROAD IMPROVEMENTS PROJECT

June 2025

Prepared For:

City of Lincoln

City of Lincoln Engineering Department

600 Sixth Street

Lincoln, Ca. 95648



Prepared By:

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Kimley»Horn

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1.0 INTRODUCTION & PURPOSE

1.1 Purpose and Scope of the Initial Study

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 et seq.) and its Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.), to evaluate the potential environmental effects associated with the construction and operation of the Lincoln Ferrari Ranch Improvements Project. Pursuant to Section 15367 of the State CEQA Guidelines, the City of Lincoln (City) is the lead agency for the project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an IS/MND can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant; and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

1.2 Summary of Findings

Section 3.0 of this document contains the Environmental Checklist that was prepared for the proposed project pursuant to CEQA requirements. The Environmental Checklist indicates whether the proposed project would result in significant impacts with the implementation of mitigation measures, as identified throughout this document.

Mitigation Measures

State CEQA Guidelines Section 15041, *Authority to Mitigate*, gives the lead agency for a project the authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the “nexus” and “rough proportionality” standards. CEQA Guidelines Section 15364 defines “feasible” as capable of being accomplished in a successful manner within a reasonable period of time, considering economic, environmental, legal, social, and technological factors. Mitigation measures will be adopted to reduce the environmental impacts to less than significant levels and must be consistent with all applicable constitutional requirements, including the following:

- There must be an essential nexus (i.e., connections) between the mitigation measure and legitimate governmental interest.
- The mitigation measure must be “roughly proportional” to the impacts of the project.

Several forms of mitigation under CEQA Section 15370 are summarized as follow:

- **Avoiding** the impact by not taking a certain action(s);
- **Minimizing** impacts by limiting the degree or magnitude of the action and its implementation;
- **Rectifying** the impact by repairing, rehabilitating, or restoring the impact environment;

- **Reducing or eliminating** the impact over time by preservation and maintenance operations during the life of the action; and
- **Compensating** for the impact by replacing or providing substitute resources or environment.

Avoiding impacts is the preferred form of mitigation, followed by minimizing or rectifying the impact to less than significant levels. Compensating for impacts would be pursued if no other form of mitigation is feasible.

Environmental Resource Topics

This IS/MND evaluates the proposed project's impacts on the following resource topic:

- | | |
|---------------------------------------|---------------------------------|
| • Aesthetics | • Land Use and Planning |
| • Agricultural and Forestry Resources | • Mineral Resources |
| • Air Quality | • Noise |
| • Biological Resources | • Population and Housing |
| • Cultural Resources | • Public Services |
| • Energy | • Recreation |
| • Geology and Soils | • Transportation |
| • Greenhouse Gas Emissions | • Tribal Cultural Resources |
| • Hazard and Hazardous Materials | • Utilities and Service Systems |
| • Hydrology and Water Quality | • Wildfire |

1.3 Initial Study Public Review Process

The Initial Study and a Notice of Intent (NOI) to adopt this MND will be distributed to responsible and trustee agencies, other affected agencies, and other parties for a 30-day public review period.

Written comments regarding this MND should be addressed to:

Roland Neufeld
City of Lincoln Engineering Department
600 Sixth Street
Lincoln, CA 95648
Roland.Neufeld@lincolncalifornia.gov

1.4 Report Organization

This document has been organized into the following sections:

Section 1.0 – Introduction. This section provides an introduction and overview describing the conclusions of the Initial Study.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Evaluation. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 5.0 – References. The section identifies resources used to prepare the Initial Study.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Project Overview

The proposed project would construct two roundabouts and improvements for pedestrians and bicyclists at the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard. The project is located within a central part of the City of Lincoln in an area primarily dominated by residential and recreational use. The purpose of the project is to improve intersection operations, reduce travel time delay, improve pedestrian accessibility, and enhance overall safety at the intersections.

2.2 Project Location

Regional Vicinity

The project is located within the central portion of the City of Lincoln. The project location falls in the region of the western foothills and is the main access point for travelers and nearby residents accessing the surrounding recreational, residential, and commercial uses, such as Lincoln Hills Golf Club. The project site is along Ferrari Ranch Road which provides the main access to Ingram Parkway and Sun City Boulevard. The proposed project is approximately 0.1 miles south of McBean Park Drive, a major arterial also known as CA-193 and Lincoln Newcastle Highway. McBean Park Drive provides access to the communities of Newcastle and Auburn, to the east and links to Lincoln Boulevard which connects to State Route 65 for connection to communities located north and south of Lincoln. Please see **Figure 2-1: Regional Map**. The project site is depicted on the Lincoln quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series. See **Figure 2-2: USGS Topographic Map**.

Local Vicinity

The project includes improvements at the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard. Ingram Parkway extends south from the project site and Sun City Boulevard extends to the southeast from the intersection. The existing intersections are both configured as three-way stop sign controlled intersections. Ingram Parkway and Sun City Boulevard are both two lane collector streets that terminate in "T" intersections at Ferrari Ranch Road.

Existing crosswalks are located on the north, east, and south sides of the Ferrari Ranch Road intersections with Sun City Boulevard and Ingram Parkway. On the western side of these intersections, there is a pedestrian bike path and walkway that provides access to each of the crosswalks. See **Figure 2-3: Vicinity Map**.

Construction of the proposed improvements would primarily occur within the existing City right-of-way but would require minor property acquisitions for additional roadway right-of-way. Temporary construction easements (TCEs) would be needed on a short-term and periodic basis. Excavation and grading of the existing roadway surface would be required for this project.

2.3 Environmental Setting

Regional Setting

Regionally, the City of Lincoln is located in the central portion of Placer County, which is part of the Sacramento metropolitan area. Placer County covers over 1,400 square miles, making it one of the larger counties in the region. Specifically, Lincoln is situated in the Sacramento Valley, surrounded by the Sierra Nevada foothills to the east and the Coastal Range to the west. The City is located north of the state capital, Sacramento.

Local Setting

The project site is located at the intersections of Ferrari Ranch Road and Ingram Parkway, and Ferrari Ranch Road and Sun City Boulevard. The intersections are bordered on three sides by existing residential development. To the west is an open space area that surrounds the Auburn Ravine. Between the Ferrari Ranch Road and the open space area is an existing bike and pedestrian pathway that runs parallel to Ferrari Ranch Road from McBean Park Drive to a point approximately 700 feet west of the Ingram Parkway intersection.

Existing Transportation Network

Ferrari Ranch Road is classified as minor arterial to McBean Parkway, a major arterial. Sun City Boulevard and Ingram Parkway are classified as collector roads, both serving primarily local and neighborhood traffic. Ferrari Ranch Road has a posted speed limit of 35 miles per hour (mph) while both Ingram Parkway and Sun City Boulevard have a posted speed limit of 30 mph.

The project site is not serviced by Placer County Transit, the local transit operator. The closest Lincoln Circulator Route lies approximately 0.23 miles west of the project site and located at the intersection of McBean Park Drive and A Street.

The City of Lincoln Bicycle Transportation Plan (BTP) establishes goals, objective, policies, and project priorities for bicycle transportation networks. In the City of Lincoln BTP, Class II Bikeways are often referred to as “bike lanes” and provide a four- foot wide signed and striped lane for one-way travel on either side of a street or highway. The BTP outlines Class II bike lanes within the project site and Class I bike paths adjacent to the project site.

2.4 Proposed Project

The proposed project would make transportation intersection improvements by installing a roundabout with bicycle and pedestrian facilities at the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard. Improvements would primarily be within existing City right-of-way (Approximately 740,920 Square feet or 17.01 Acres). The proposed project would improve safety, reduce traffic delays, reduce operations and maintenance costs.

The proposed project would not change the existing land uses. **Figure 2-3** shows the project intersections and roadways on an aerial. **Figure 2-4: Conceptual Plan at the Intersection of Ferrari Ranch Road and Ingram Parkway** and **Figure 2-5: Conceptual Plan at the Intersection of Ferrari Ranch Road and Sun City Boulevard** provide a graphic representation and location of the proposed roundabouts. The proposed project would remain primarily within the existing public right of way. Right-of-way acquisitions would be required for construction to proceed. **Figure 2-6: Right-of-Way Acquisitions at the Intersection of Ferrari**

Ranch Road and Ingram Parkway and **Figure 2-7: Right-of-Way Acquisitions at the Intersection of Ferrari Ranch Road and Sun City Boulevard**, shows the portions of adjacent parcels that would be acquired, or have improvements made. A description of parcels included in the project is shown in *Table 2.3-1: Project Parcels and Acquisition Areas*.

Table 2.3-1: Project Parcels and Acquisition Areas

APN and Address	SF (Square Feet)	ROW Acquired (Acres)	Existing Zoning	Existing Land Uses	Description of Acquired Property
338-020-041-000 No address on file	1,934	0.044	Medium Density Residential (LDR-2)	Developed Landscaping Area	A developed landscaping area owned by the Sun City Lincoln Hills Community Association
338-100-044-000 No address on file	2,328	0.053	Low Density Residential (LDR-1)	Developed Landscaping Area	A developed landscaping area owned by the Sun City Lincoln Hills Community Association
338-110-076-000 No address on file	153	0.004	Low Density Residential (LDR-1)	Developed Landscaping Area	A developed landscaping area owned by the Sun City Lincoln Hills Community Association
338-150-081-000 No address on file	1,820	0.042	Medium Density Residential (LDR-2)	Developed Landscaping Area	A developed landscaping area owned by the Sun City Lincoln Hills Community Association
TOTAL	6,235	0.143			
Source: City of Lincoln, 2025, <i>City of Lincoln Zoning and Land Use Map</i> , Available at https://experience.arcgis.com/experience/fadaa0d25cb94b14b2a217033c8a441a/?draft=true&org=CityOfLincoln .					

The project also would improve Americans with Disabilities Act (ADA) pedestrian facilities and enhance pedestrian and bicycle circulation. Bicycle facilities consistent with the Countywide Active Transportation Plan, adopted May 2008 and updated in 2014, are proposed where feasible at the intersections. The proposed project would include the following intersection improvements:

Installation of the two proposed roundabouts includes single lane entries and exists for travelers from all roadways. Entry and exit signage would be provided to inform drivers of entry and exit points, yield points, and to safely conduct them through the roundabout consistent with the California Manual on Uniform Traffic Control Devices (MUTCD).

The project would include landscaping improvements (plant pallet – native water efficient plants) and new sidewalks that would tie into existing sidewalks along Ferrari Ranch Road, Ingram Parkway, and Sun City Boulevard. The proposed project anticipates the removal of approximately 20-30 trees. All sidewalks would have ADA compliant curb ramps and would connect to marked and signed crosswalks to enable crossings of all roadways. Each crosswalk would have a refuge island within the medians separating travel lanes and that would further assist in calming and slowing traffic. Each center roundabout median would have a ramped hardscape outer ring and a landscaped area (signage) in the center. See **Figure 2-4** and **Figure 2-5**.

Stormwater

The proposed project would tie into existing stormwater facilities to contain stormwater flows, promote water infiltration with the installation of permeable landscaped areas, and reduce potential for increased downstream stormwater flows.

Utilities

The proposed project, as needed, would tie into existing utilities for electrification of lighting and crosswalk illumination. Excavation to a maximum depth of 10 feet would be required for light pole foundation installation. The proposed project would require trenching to an approximate depth of 2-3 feet for installation of conduits. The project would tie into existing water lines for new on-site irrigation for landscaping but would not expand existing water infrastructure. No new connection to the sewer system, or gas facilities are proposed.

Project Construction

Project construction would occur in one phase and occur over a period of 15 months, beginning in the 2nd quarter of 2026. The project would involve grading of 13,000 cubic yards of soil for export and no soil would be imported.

Some demolition, excavation, and grading would be required for this project. Equipment that may be used to accomplish project work is listed below. Construction equipment would consist of but not limited to the following:

- Bobcat/Skid Steer Loader
- Compactor (ground)
- Concrete Mixer Truck
- Concrete Saw
- Crane or Bucket truck
- Dozer/Grader/Excavator/Scraper
- Backhoes
- Gradall (multi-purpose excavator)
- Jackhammer
- Pavement Scarifier/Roller
- Pneumatic Tools

- Truck (Dump/Flat Bed)

Best Management Practices

Water quality measures (stormwater management measures and BMPs) would be implemented as part of the project to minimize potential water quality impacts during construction, operation, and maintenance. Key management measures consist of the following:

- Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Minimize the potential for erosion by limiting land disturbances such as clearing, grading, and cut and fill.
- Limit disturbance of natural drainage features and vegetation.
- Prepare and implement an approved Storm Water Pollution Prevention Plan (SWPPP).
- Ensure proper storage and disposal of toxic material.
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff.

Construction BMPs

The City and its contractor will implement construction BMPs to avoid and minimize impacts on sensitive environmental resources. Implementation of the Erosion Control Plan, the National Pollutant Discharge Elimination System (NPDES) permit and associated SWPPP, and the BMPs as discussed below will minimize the potential for construction-related surface water pollution and ensure that water quality in off-site waterways and wetlands will not be compromised by erosion and sedimentation during construction.

Temporary Fencing. Where appropriate, the City's contractor will install construction barrier fencing (including sediment fencing and straw wattles) to prevent contaminants and debris from entering off-site surface waters. Before construction begins, the City or its contractor will identify the locations for the barrier fencing and mark those locations with stakes or flagging.

Storm Water Pollution Prevention Plan (SWPPP). A SWPPP will be implemented as part of the NPDES Permit and a General Construction Activity Storm Water Permit to minimize the potential for sediments or contaminants to enter off-site waterways.

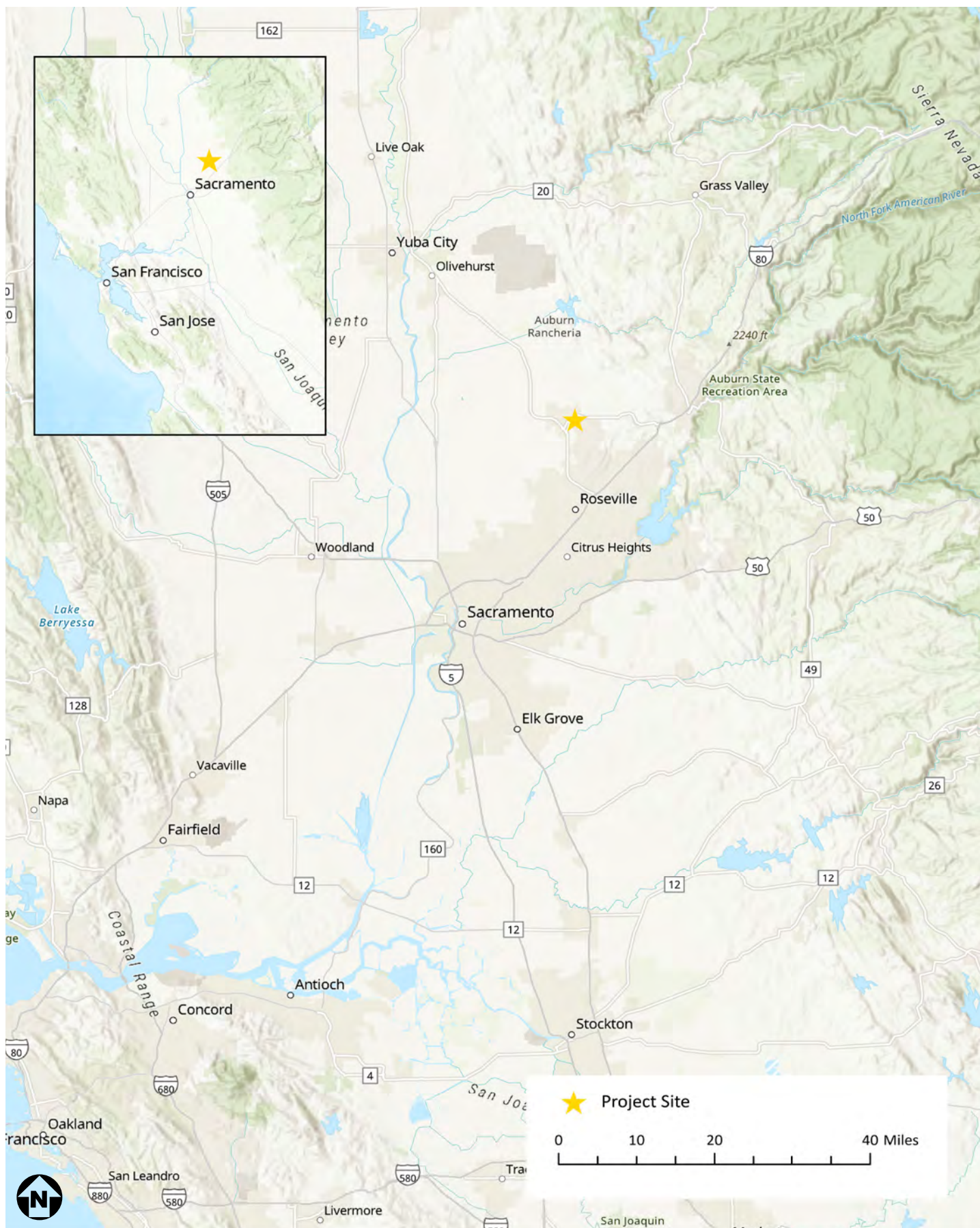
Equipment. The City will comply with applicable stormwater ordinances, stormwater management plans, and BMPs to prevent or minimize the potential release of equipment-related petroleum contaminants into adjacent surface waters and groundwater. Implementation of standard construction procedures and precautions for working with petroleum and construction chemicals will further ensure that the impacts related to chemical handling during project construction will be minor.

Hazardous Materials. The City will implement appropriate hazardous material management practices and other good housekeeping measures to reduce the potential for chemical spills or releases of contaminants, including any non-stormwater discharge to adjacent surface waters. Implementation of these measures will minimize the potential for surface and groundwater contamination.

Erosion Control. The project design will incorporate permanent erosion control elements to ensure that stormwater runoff does not cause soil erosion. Erosion and sediment control plans will comply with the City's Grading Ordinance, which requires reducing erosion and retaining sediment onsite.

Toxic Materials Control and Spill Response Plan. The following measures will be incorporated into the plan and implemented to avoid or minimize the risk of spills or discharges of toxic materials into adjacent surface waters.

- Prepare a hazardous material spill prevention, control, and countermeasure plan (SPCC) before construction and implement during construction.
- Prevent raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering off-site surface waters.
- Prevent discharge of drilling mud and fluids into off-site surface waters by using appropriate containment, disposal, and storage methods.
- Prevent discharge of turbid water or sediment-laden runoff to off-site surface waters by using sediment filters, diverting the water to a settling tank, and/or implementing other erosion and water quality control BMPs.
- Clean up all spills immediately according to the SPCC.
- Provide areas located outside of sensitive environmental areas for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
- Prevent hazardous materials from entering waters. The construction contractor will notify the City Fire Department if evidence of soil or groundwater contamination is encountered during construction activities. Construction in that area will be halted until the Fire Department has evaluated the find and remediation is completed, if necessary.



Source: ESRI, 2024

Figure 2-1: Regional Map

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

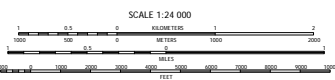
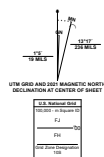


7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO



Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1000-meter grid Universal Transverse Mercator, Zone 10S
Data is provided by The National Map (2016), is the best available at the time of map
production, and includes data collected from topographic sheets of elevation,
hydrography, geographic names, boundaries, topographic, structures, land cover,
and other data collected from various sources. Topographic data is provided by the
National Map (2016) and is the best available at the time of map production.
Learn About The National Map: <https://nationalmap.gov>



ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Interstate Route	State Route
US Route	

7.5-MINUTE TOPO, CA
2024



Source: USGS, 2024

Figure 2-2: USGS Topographic Map
Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



Source: ESRI, 2024

Figure 2-3: Vicinity Map

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



Source: Kimley-Horn, 2025

Figure 2-4: Conceptual Plan at the Intersection of Ferrari Ranch Road and Ingram Parkway

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



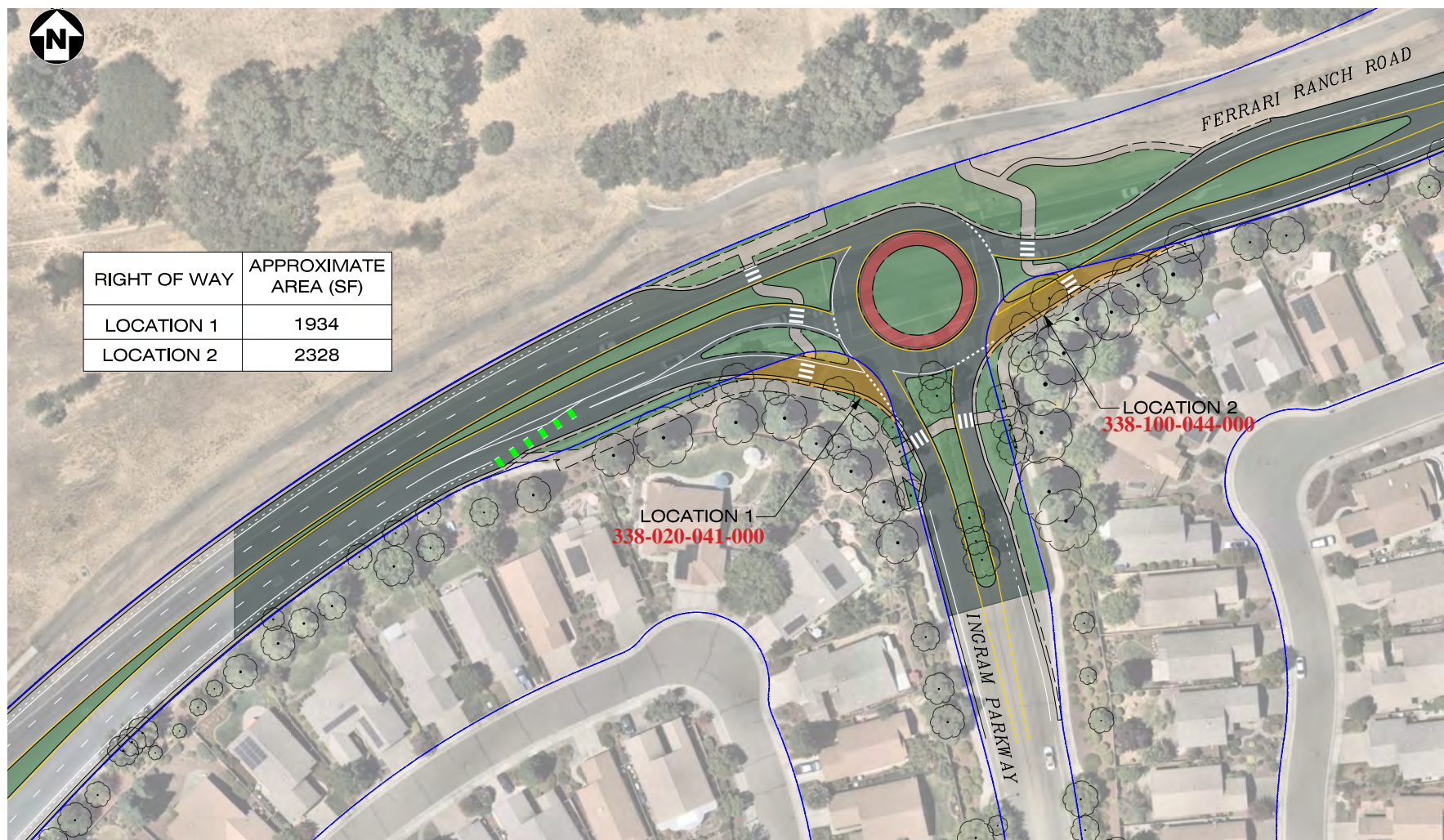
Source: Kimley-Horn, 2025

Figure 2-5: Conceptual Plan at the Intersection of Ferrari Ranch Road and Sun City Boulevard

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



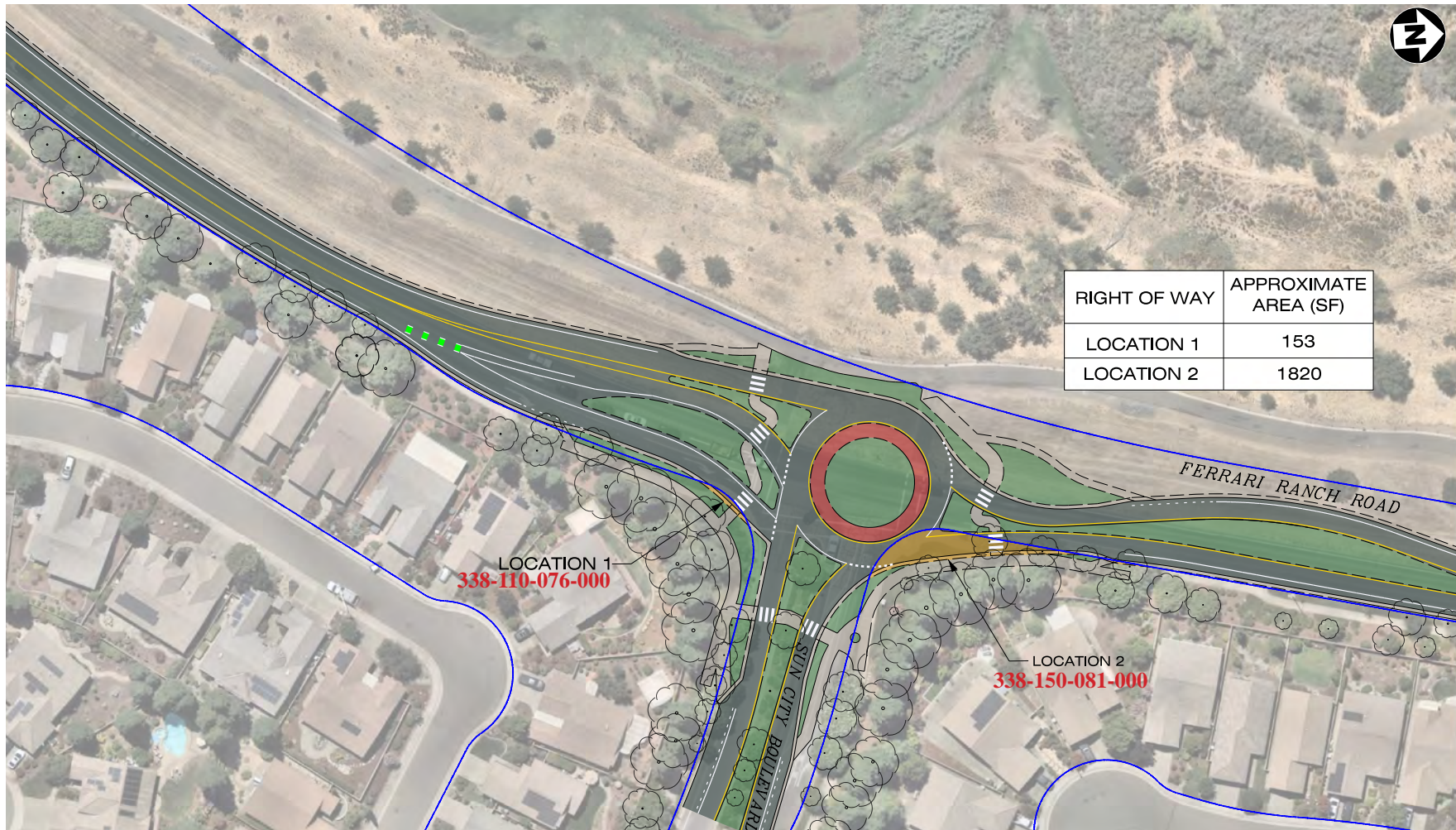
Source: Kimley-Horn, 2025

Figure 2-6: Right-of-Way Acquisitions at the Intersection of Ferrari Ranch Road and Ingram Parkway

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn



Source: Kimley-Horn, 2025

Figure 2-7: Right-of-Way Acquisitions at the Intersection of Ferrari Ranch Road and Sun City Boulevard

Ferrari Ranch Road Improvements Project
City of Lincoln

Not to scale

Kimley»Horn

3.0 INITIAL STUDY CHECKLIST

1. Project title:

Ferrari Ranch Road Improvements Project

2. Lead agency name and address:

City of Lincoln
600 Sixth Street
Lincoln, CA 95648

3. Contact person and phone number:

Roland Neufeld, P.E.
(916) 434-2481

4. Project location:

0.9 miles of Ferrari Ranch Road from its intersection with McBean Park Drive to south of its intersection with Ingram Parkway

5. Project sponsor's name and address:

City of Lincoln
600 Sixth Street
Lincoln, CA 95648

6. General plan designation:

No Designation - Roadway and Transportation

7. Zoning:

No Designation - Roadway and Transportation

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The Ferrari Ranch Road Improvements Project (proposed project) would construct two roundabouts and improvements for pedestrians and bicyclists at the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard. The project includes approximately 0.9 miles of improvements along Ferrari Ranch Road from its intersection with McBean Park Drive to the south at its intersection with Ingram Parkway. The project would include landscaping improvements and new sidewalks that would tie into existing sidewalks along Ferrari Ranch Road, Ingram Parkway, and Sun City Boulevard.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

The project site is located within existing roadways and areas that have previously been graded and previously disturbed. The area surrounding the project site is urbanized with residential, commercial, and open space land uses. Residential uses generally include low density residential and medium density residential located east of the project site, and retail uses are predominantly located west of the project site may be accessed from Ferrari Ranch Road to Lincoln Boulevard or to McBean Park Drive. Public uses in the general vicinity of the project site include the Lincoln Hills Town Center retail area to the west at Lincoln Boulevard and Ferrari Ranch Road. Other public and quasi-public uses include McBean Memorial Park to the north. Open Space west of the project includes the McBean Park Expansion Preserve Area.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

City of Lincoln

- Adoption of the Mitigated Negative Declaration (MND);
- Adoption of the Mitigation Monitoring and Reporting Plan (MMRP), and
- City review and approval of Grading and Improvement Plans.

Other Agencies which may be required to issue a permit or approval.

- Regional Water Quality Control Board - National Pollution Discharge Elimination System (NPDES), and Stormwater Pollution Prevention Plan (SWPPP);
- Placer County Air Pollution Control District;
- California Department Fish and Wildlife (CDFW); and
- California Department of Toxic Substances Control (DTSC);
- California Office of Historic Preservation
- Wildlife Heritage Foundation

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On January 7, 2025 the City of Lincoln, acting as the CEQA Lead Agency informed one tribe of the proposed project. One request for consultation was received. A City representative met with a representative from the United Auburn Indian Community (UAIC) on the project site on February 13, 2025. At the meeting the UAIC indicated that they did not require tribal oversight or any additional mitigation measures. No other requests for consultation have been received.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse

impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

4.0 ENVIRONMENTAL ANALYSIS

Environmental Factors Potentially Affected by the Project

The environmental factors checked below would be potentially affected by this project, involving impacts identified as "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages.


	Aesthetics		Agricultural Resources		Air Quality
X	Biological Resources	X	Cultural Resources		Energy
X	Geology / Soils		Greenhouse Gas Emissions		Hazards & Hazardous Materials
X	Hydrology / Water Quality		Land Use / Planning		Mineral Resources
	Noise		Population / Housing		Public Services
	Recreation		Transportation / Traffic	X	Tribal Cultural Resources
	Utilities / Service Systems		Wildfire		Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

CERTIFICATION:


Signature

6/9/2025
Date

4.1 Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
a) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
b) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
c) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

*a) Have a substantial adverse effect on a scenic vista?***Less than Significant Impact.**

The project site consists of an existing roadway and the surrounding areas primarily consist of residential, commercial, and recreation uses. The proposed project is situated at the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard, which currently controls traffic flow with stop signs. The project site and surrounding terrain is flat with an open space area to the west, and fully developed with residential neighborhoods to the east.

Under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. A vista is a view from a particular location or combination of locations and a scenic vista combines an aesthetically pleasing aspect, often natural, to the vista. Examples of scenic vistas can include mountain ranges, valleys, ridgelines, water bodies, or visually important trees, rock outcroppings, or historic buildings. While a scenic vista may be formally designated, they can be informal public views. Changes in the viewshed are typically discussed in terms of foreground, middleground, and background views. An adverse

effect to a scenic vista may result from a degradation of an existing vista or the loss of access to an existing viewpoint.

The project would introduce new visual elements to the project site, but it does not include any features that would be elevated or that have the potential to affect any distant views. The changes to the visual environment would be consistent with existing uses and roadway infrastructure in the project area and is an extension of existing uses. Thus, the project would not result in a substantial alteration to the visual environment and or a scenic vista. Impacts would be less than significant, and mitigation is not required.

- b) *Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less than Significant Impact. The project site is not located within a scenic highway. The nearest officially designated scenic highway segment approximately 11.3 miles away from the project site. Therefore, the project site is not visible from this segment.

There are no historic buildings within the vicinity of the project site. The closest historic building is the Women's Club of Lincoln located approximately 0.5 miles northwest from the project site.

The changes to the visual environment would be consistent with existing uses in the vicinity and roadway infrastructure in the project area and is an extension of existing uses. Thus, the project would not result in substantial damage to any of the mentioned scenic resources. Impacts would be less than significant, and mitigation is not required.

- c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact. The project site is located within an existing roadway that is surrounded by development primarily consisting of residential use. The project includes improvements to the intersections with installation of a roundabout at Ingram Parkway and Sun City Boulevard, which would both occur primarily within the existing right-of-way with minor additional right-of-way required. All design elements of the proposed improvement would be consistent with and complement existing development in the project area and would comply with all state and local regulations for roadway improvements and design. For these reasons, the proposed project would have a less than significant impact on the visual character and quality of the site and surround area.

- d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less than Significant Impact. Implementation of the proposed project could introduce new sources of light and glare into the project area during construction from temporary night lighting, if required, and during operation with the addition of some additional streetlights consistent with the existing streetlights on Ferrari Ranch Road. Contributions to light and glare impacts would be temporary and short-term and only occur during construction period. Any new street lights

installed with the project would conform to the City of Lincoln Electrical and Street Lighting Design standards and 2022 Building Standards Code for street lighting that establish requirements for light illumination, the use of light shields, and lighting that is directed downward to minimize the effects of spillage, and potential for glare. Thus, the proposed project would have a less than significant impact in this regard and mitigation is not required.

Cumulative Impacts

The potential aesthetic impacts related to views, aesthetics, and light and glare are generally site-specific. As discussed above, project-related changes would be minimal and impacts to scenic vistas would be less than significant. All design elements of the proposed improvement would be consistent with and complement existing development in the project area. The project also would not alter the balance of the surrounding areas and they would retain their existing character. The project would not introduce substantial sources of new lighting and would not make a substantial contribution to new light sources in the area. As discussed above, the project consists of low-lying roadway improvements that would not block any views, is consistent with the surrounding visual environment, and would introduce minimal new sources of lighting. Therefore, while the proposed project would make minor changes to the appearance of the site, this project, in conjunction with other past, present, and reasonably foreseeable projects in the vicinity, would not make a cumulative contribution to effects on aesthetic resources. Impacts would be less than significant, and mitigation is not required.

4.2 Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) 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?				X

- 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?*

No Impact. Based on the California Department of Conservation Important Farmland Monitoring and Mapping Program (FMMP), the project site is located on Urban and Build-Up Land. Urban and Build-Up Land is defined as land that is occupied by structures with a building density of at least 1

unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, and institutional facilities. The project is not located within Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project is limited to areas within the existing roadways and areas that have been previously graded or developed none of which are used for agricultural production. In addition, construction and operation of the proposed project would not affect or reduce the viability of any agricultural operations. The project is adjacent to areas mapped as Urban and Built-Up Land, Grazing Land, and Other Land under the FMMP. However, an area mapped Grazing Land adjacent to the northeast of the intersection of McBean Park Drive and Ferrari Ranch Road, however; none of this area would be affected. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and would have no impact on farmland.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is located primarily within the existing roadway and hardscape. The areas adjacent to the project site fall within various zoning classifications: Medium Density Residential (LDR-2), Low Density Residential (LDR-1), and Open Space (O-S). The project site does not conflict with existing zoning for agriculture or contain a Williamson Act Contract. Therefore, the proposed project would have no impact in this regard.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. As identified above, the areas in the vicinity of the project site fall within various zoning classifications: Medium Density Residential (LDR-2), Low Density Residential (LDR-1), and Open Space (O-S). The project site does not contain zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Therefore, the proposed project would have no impact in this regard.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As identified above, the project site does not contain zoning for forest land, timberland, or timberland production and would not conflict with either c) or d), above. Therefore, the proposed project would have no impact in this regard.

e) 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?

No Impact. Refer to a) and c)

Cumulative Impacts

The proposed project includes intersection improvements primarily within the existing roadway. The project site does not contain zoning or land use designations for agriculture, farmland, or forestland. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor a substantial increase in the severity of a cumulative impact previously disclosed.

4.3 Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a 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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			X	

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The proposed project is located within the Sacramento Valley Air Basin (SVAB). This Basin comprises all of Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties, and the northern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.

The proposed project site is located in the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). Portions of the PCAPCD area are within three air basins. The SVAB portion of the PCAPCD is located within the Sacramento region non-attainment area for federal ozone standards. The PCAPCD, along with other local air districts in the Sacramento Region, are required to comply with and implement the federal State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone standard. The PCAPCD and other local air districts prepared the Sacramento Regional 2015 NAAQS 8-Hour Ozone Attainment & Reasonable Further Progress Plan in 2023. The Sacramento Federal Ozone Nonattainment Area (SFNA) is anticipated to achieve compliance with the 2015 ozone NAAQS by 2032. This will be accomplished through the implementation of existing federal, state, regional, and local control strategies, as well as new statewide control, contingency actions and local contingency actions.

The PCAPCD's CEQA Air Quality Guidelines provide significance thresholds for construction of projects. If the PCAPCD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development

in excess of the established thresholds, as outlined in *Table 4.3-1, Placer County Air Pollution Control District Emissions Thresholds*, a significant air quality impact may occur, and additional analysis is warranted to fully assess the significance of impacts.

Table 4.3-1: Placer County Air Quality Control District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Construction-Related
	Average Daily Emissions (pounds/day)
ROG	82
NO _x	82
Inhalable PM ₁₀	82
Source: Placer County Air Pollution Control District 2017.	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact.

The PCAPCD established the significance thresholds to ensure consistency with the air quality plans. Therefore, the emissions from project construction would align with these plans. As discussed in *Table 4.3-2, Construction Emissions Summary and Significance Evaluation*, construction emissions generated by the proposed project would not exceed PCAPCD's emissions thresholds. The proposed project would not be considered by the PCAPCD to be a significant emitter of criteria air pollutants and would not contribute to any non-attainment areas in the SVAB. Furthermore, although project emissions would not be significant, the project would be required to comply with relevant PCAPCD rules and regulations, including PCAPCD Rule 228 which requires fugitive dust control to diminish the particulate matter in the ambient air during construction activities. As such, project emissions would be lower than shown in *Table 4.3-2*. In June 2024, the Placer County Transportation Planning Agency (PCTPA) released the 2044 Placer County Regional Transportation Plan, addressing the policy direction, actions, and funding recommendations aiming to meet the short- and long-term transportation needs in Placer County. PCTPA collaborates with Federal Highway Administration (FHWA), Caltrans, and local jurisdictions in the county to enhance regional roadway network.

The project consists of roadway and intersection improvements and would not result in housing or employment growth. Further, the proposed roundabouts are preferable than the existing all-way stop controlled (AWSC) intersections since they would improve traffic flow by allowing vehicles to travel without stopping. Thus, it reduces traffic delay and pollutant emissions. The project would be consistent with existing land uses and would not conflict with or obstruct implementation of the applicable air quality plan.

Therefore, impacts associated with the project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant, and no mitigation would be required.

- b) *Result in a 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?*

Less Than Significant Impact.

Project Construction Impact

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone precursor pollutants (i.e., ROG, NO_x, PM₁₀, and PM_{2.5}). Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the PCAPCD's thresholds of significance. Construction results in the temporary generation of emissions resulting from site grading, road paving, and motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

The duration of construction activities for the project is estimated to last approximately 15 months and begin in June 2026. The project consists of the construction of two roundabout intersections on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard to improve intersection operations and safety. The construction of the two roundabouts is anticipated to occur concurrently. Construction-generated emissions associated with the proposed project were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod) (version 2022.1), which is designed to model emissions for land use development projects, based on typical construction requirements. See **Appendix A: Air Quality and GHG Data** for more information regarding the construction assumptions used in this analysis.

Predicted average daily construction-generated emissions for the concurrent construction of the two proposed roundabouts is identified in *Table 4.3-2, Construction Emission Summary and Significance Evaluation*. *Table 4.3-2* shows that construction pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the proposed project would also be subject to PCAPCD Rules 205 and 228, which prohibit nuisances and require fugitive dust control, respectively. Compliance with rules would further reduce specific construction-related emissions.

Table 4.3-2: Construction Emissions Summary and Significance Evaluation

Construction Year	Criteria Pollutant (average pounds per day)		
	ROG	NO _x	PM ₁₀
2026	1.01	7.55	0.40
2027	0.15	0.98	0.07
PCAPCD Significance Threshold ^{2, 3}	82	82	82
Exceed PCAPCD Threshold?	No	No	No

Source: Refer to the CalEEMod outputs provided in **Appendix A, Air Quality and GHG Data**.

As shown in *Table 4.3 2*, project construction would not exceed PCAPCD thresholds for ROG, NO_x, or PM₁₀. Project emissions would not worsen ambient air quality, create additional violations of federal and state

standards, or delay goals for meeting attainment standards. Construction impacts would be less than significant.

Project Operational Impact

Long-term operational emissions are typically attributed to vehicle trips (mobile emissions), the use of natural gas (energy source emissions), and consumer products, architectural coatings, and landscape maintenance equipment (area source emissions). The project consists of the construction of two roundabout intersections on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard. The project would improve intersection operations and safety. Further, the proposed project would not generate new vehicle trips, and no stationary sources are proposed. Therefore, operational emissions are less than significant, and no mitigation is required.

Cumulative Short-Term Impact

The SVAB is designated nonattainment for O₃ and PM₁₀, for State standards and nonattainment for O₃ and PM_{2.5} for Federal standards. As discussed above, the project's construction-related emissions by themselves would not have the potential to exceed the PCAPCD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The PCAPCD recommends Fugitive Dust Control Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with PCAPCD construction-related requirements is considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the proposed project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Emissions

As discussed above, the proposed project would not generate new vehicle trips. Therefore, Project operations would not generate new operational emissions and would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Under CEQA, residences, schools, daycare centers, and healthcare facilities, such as hospitals, or retirement and nursing homes, are considered sensitive receptors. Single-family residences are located approximately 163 feet to the east of the project site. The proposed project involves the construction of two roundabout intersections on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard. The project would not result in stationary source emissions. The project would not include parking spaces or change existing land use activities; therefore, the project would not result in a substantial increase in traffic-related pollutant concentrations that could affect sensitive receptors. Further, the dust and equipment exhaust emissions during construction would be minimal and would be controlled by compliance with PCAPCD rules.

Construction Period Toxic Air Contaminant Impacts

Construction would result in the generation of diesel particulate matter (DPM) emissions from the use of off-road diesel equipment. The amount to which the receptors are exposed (a function of concentration

and duration of exposure) is the primary factor used to determine health risk (i.e. potential exposure to toxic air contaminant [TAC] emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short-term and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate with the temporary and highly variable nature of construction activities. The California Office of Environmental Health Hazard Assessment (OEHHA) has not identified short-term health effects from DPM. Construction would be temporary and transient throughout the project site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time which would limit the exposure of any proximate individual sensitive receptor to TACs.

Additionally, construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Sections 2485 and 2449), which reduce DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the project site (i.e., construction is not likely to occur in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited.

Therefore, considering the relatively short duration of DPM-emitting construction activity at any one location, distance of sensitive receptors, and the highly dispersive properties of DPM, sensitive receptors would not be exposed to substantial concentrations of construction-related TAC emissions. Impacts would be less than significant.

Operation Period Toxic Air Contaminant Impacts

The proposed project involves the construction of two roundabout intersections on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard. The project would not result in an increase of operations and would not result in traffic-related pollutant concentrations that could affect sensitive receptors. Thus, impacts would be less than significant.

Operational CO Hotspots

Localized high levels of CO (CO hotspot) are associated with traffic congestion and idling or slow-moving vehicles. Impacts related to CO hotspots would be less than significant because the proposed project would not generate new vehicle trips and would only have short-term temporary traffic impacts during construction. The primary purpose of the project is to improve intersection operations and safety. Nearby residents would not be exposed to substantial pollutant concentrations and the impact would be less than significant.

d) *Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)*

Less Than Significant Impact. Construction activities associated with the project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Cumulative Impacts

The cumulative setting for air quality includes the City of Lincoln and the Air Basin. The SVAB is designated nonattainment for O₃ and PM₁₀, for State standards and nonattainment for O₃ and PM_{2.5} for Federal standards. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

As described in Section 4.3(a), above, the project would also be consistent with the appropriate City of Lincoln regulations and plans as well as the PCAPCD emission thresholds, which are provided to reduce air quality emissions for the region. Additionally, the discussion in Section 4.3(b) addresses cumulative impacts and demonstrates that the project would not exceed the applicable PCAPCD thresholds. Consistency with the PCAPCD's control measures would ensure that the project would not cumulatively contribute to air quality impacts in the Basin. Therefore, impacts would be less than significant.

4.4 Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
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 Game or US Fish and Wildlife Service?			X	
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			X	
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

A Biological Resources Assessment was prepared for the proposed project in September 2024. The Biological Resources Assessment provided an evaluation of biological resources in the project area, the results of which are summarized below. The biological resources report is attached as **Appendix B: Biological Resources Assessment**.

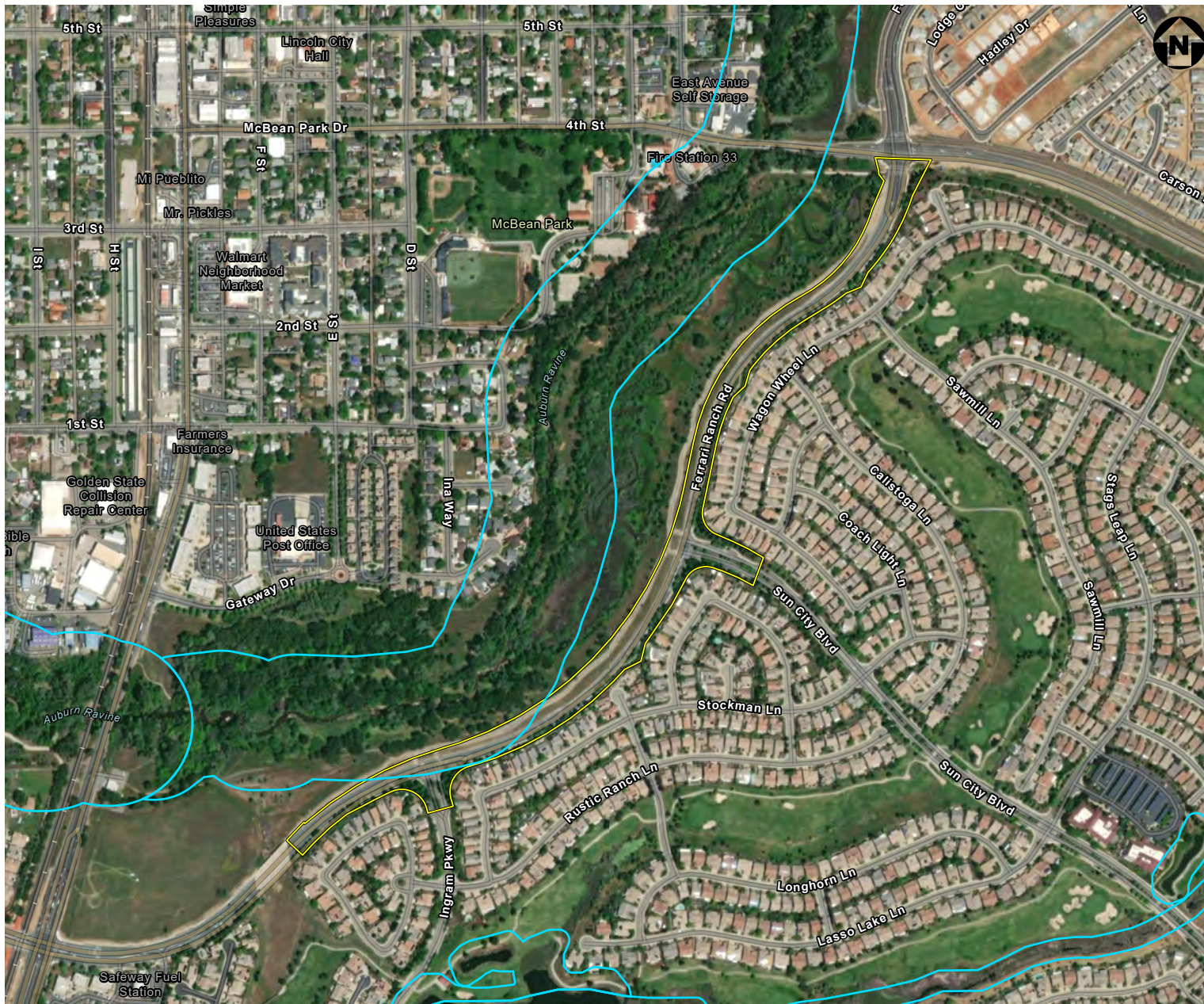
- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation Incorporated. The project site primarily consists of paved and gravel surfaces surrounded by residential and commercial development with open space land located west of the project site. The roadway is bordered by heavily disturbed shoulders, which include some ornamental plants and trees. The project corridor is a north-south two-lane minor arterial. There is a naturally occurring wetland located offsite to northwest of the project site listed as the Auburn Ravine. The waterway is not located within the project area, but a portion of the project site is located within the Placer County Conservation Program (PCCP) Stream System buffer. See **Figure 4.4-1: PCCP Stream System**. The National Wetland Inventory identifies a riverine habitat intersecting the project site at the intersection of Ingram Parkway and Ferrari Ranch Road, northeast of the intersection of Ingram Parkway and Ferrari Ranch Road, and at the intersection of Sun City Boulevard and Ferrari Ranch Road (USFWS, 2024). The project site, however, is completely disturbed and this riverine habitat is no longer present.

Special-status plant and animal species are recognized by state and/or federal agencies and certain vegetation types or habitats can be considered to have special status because they have limited distribution or the potential to support special-status plant and animal species. This includes federally endangered, threatened, proposed, candidate, or species of concern. Species can also be listed as state endangered, threatened, candidate, fully protected, rare, or state species of concern. Other categories exist for birds and rare plants.

Special Status Plants

Results of a review of databases revealed that there is potential for 19 special status plant species and 47 special status animal species to occur within the project site. Biologists surveyed the project corridor/biological study area (BSA) on August 1, 2024, to assess general and dominant vegetation types, aquatic resources, suitable habitat for special-status species, and species present. The project site is composed of an Urban and Suburban land cover type with a majority of the project corridor being a paved road that is devoid of vegetation. Sparse ruderal vegetation, including puncture vine (*Tribulus terrestris*), turkey mullein (*Croton setiger*), and stinkwort (*Diitrichia graveolens*), is scattered along the western border of the project area. The eastern border of the project area consists of maintained landscaping with a variety of horticultural tree and shrub species including coast redwood (*Sequoia sempervirens*), box-elder (*Acer negundo*), eastern redbud (*Cercis canadensis*), creeping manzanita (*Arctostaphylos* sp.), Japanese cheesewood (*Pittosporum tobira*), and Indian hawthorn (*Rhaphiolepis indica*).



Map Contents

- Biological Study Area - 15.75 acres
- PCCP Stream System

Source: ECRP Consulting, Inc. 2024

Figure 4.4-1: PCCP Stream System

Ferrari Ranch Road Roundabout Improvements Project
City of Lincoln

Not to scale

Kimley»Horn

The Biological Resources Assessment evaluated the potential presence of special-status plant species in the project area. *Table 4.4-1, Potentially Occurring Special-Status Plant Species*, provides this information in tabular format below. According to the Biological Resources Assessment, all potentially occurring special-status plants are absent from the project site.

Special Status Animals

The Biological Resources Assessment evaluated the potential presence of animal species in the project area. *Table 4.4-2, Potentially Occurring Special-Status Animal Species*, provides this information in tabular format below. The potential presence of special status animal species and habitat occurrence within the project site is discussed further below.

Table 4.4-1: Potentially Occurring Special-Status Plant Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Plants				
Mexican mosquito fern (<i>Azolla microphylla</i>)	4.2	Marshes and swamps, ponds or slow-moving bodies of water (100'–330')	August	Presumed absent. There is no suitable habitat within the BSA.
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils (150'–5,100')	March–June	Presumed absent. There is no suitable habitat within the BSA.
Valley brodiaea (<i>Brodiaea rosea</i> ssp. <i>vallicola</i>)	4.2	Occurs in old alluvial terraces and silt, sandy, or gravelly soils in vernal pools and swales within valley and foothill grassland (35'–1,100')	April–May	Presumed absent. There is no suitable habitat within the BSA.
Sierra foothills brodiaea (<i>Brodiaea sierrae</i>)	4.3	Usually found on serpentine or gabbroic soils within chaparral or cismontane woodland (165'–3,215')	May–August	Presumed absent. There is no suitable habitat within the BSA.
Spicate calycadenia (<i>Calycadenia spicata</i>)	1B.3	Adobe, clay, disturbed areas, dry, gravelly, openings, roadsides, and rocky sites within cismontane woodland and valley and foothill grassland (130'–4,595')	May–September	Presumed absent. There is no suitable habitat within the BSA.
Hispid salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	1B.1	Alkaline soils in meadows and seeps, playas, and valley and foothill grasslands (5'–510')	June–September	Presumed absent. There is no suitable alkaline habitat within the BSA.
Brandegees' clarkia (<i>Clarkia biloba</i> ssp.)	4.2	Chaparral, cismontane woodlands, and lower montane coniferous forest often along roadcuts (245'–3,000')	May–July	Presumed absent. There is no suitable habitat within the BSA.

Table 4.4-1: Potentially Occurring Special-Status Plant Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
<i>brandegeae</i>)				
Dwarf downingia (<i>Downingia pusilla</i>)	2B.2	Mesic areas in valley and foothill grassland, and vernal pools. Species has also been found in disturbed areas such as tire ruts and scraped depressions (CDFW 2024d) (5'–1,460')	March–May	Presumed absent. There is no suitable habitat within the BSA.
Stinkbells (<i>Fritillaria agrestis</i>)	4.2	Clay and sometimes serpentine soils in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland (35'–5,100')	March–June	Presumed absent. There is no suitable habitat within the BSA.
Boggs Lake hedgehyssop (<i>Gratiola heterosepala</i>)	1B.2	Clay substrates of marshes and swamps (lake margins) and vernal pools (35'–7,790')	April–August	Presumed absent. There is no suitable habitat within the BSA.
Woolly rose-mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	1B.2	Marshes and freshwater swamps. Often in riprap on sides of levees (0'–395')	June–September	Presumed absent. There is no suitable habitat within the BSA.
Ahart's dwarf rush (<i>Juncus leiospermus</i> var. <i>ahartii</i>)	1B.2	Mesic areas in valley and foothill grassland. Species has an affinity for slight disturbance such as farmed fields (USFWS 2005) (100'–750')	March–May	Presumed absent. There is no suitable habitat within the BSA.
Red Bluff dwarf rush (<i>Juncus leiospermus</i> var. <i>leiospermus</i>)	1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools (115'–4,100')	March–June	Presumed absent. There is no suitable habitat within the BSA and the BSA is outside the known geographic range for this species (CDFW 2024d).

Table 4.4-1: Potentially Occurring Special-Status Plant Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Legenere (<i>Legenere limosa</i>)	1B.1	Various seasonally inundated areas including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages (USFWS 2005) (5'–2,885')	April–June	Presumed absent. There is no suitable habitat within the BSA.
Bristly leptosiphon (<i>Leptosiphon aureus</i>)	4.2	Chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (180'–4,920')	April–July	Presumed absent. There is no suitable habitat within the BSA.
Humboldt lily (<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>)	4.2	Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest (295'–4,200')	May–July	Presumed absent. There is no suitable habitat within the BSA.
Pincushion navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>)	1B.1	Often acidic soils in vernal Pools (65'–1,085')	April–May	Presumed absent. There is no suitable habitat within the BSA.
Oval-leaved viburnum (<i>Viburnum ellipticum</i>)	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities (705'–4,595')	May–June	Presumed absent. There is no suitable habitat within the BSA.
Brazilian watermeal (<i>Wolffia brasiliensis</i>)	2B.3	Assorted shallow freshwater marshes and swamps (65'–330')	April–December	Presumed absent. There is no suitable habitat within the BSA.
<p><u>Notes:</u> CESA = California Endangered Species Act; DPS = Distinct Population Segment; ESA = Federal Endangered; Species Act; ESU = Evolutionary Significant Unit; NPPA = Native Plant Protection Act</p> <p><u>Status Codes:</u></p> <p>1A: CRPR/Presumed extinct</p> <p>1B: CRPR/Rare or Endangered in California and elsewhere</p> <p>2A: CRPR/Plants presumed extirpated in California but common elsewhere</p> <p>2B: CRPR/Plants rare, threatened, or endangered in California but more common elsewhere</p> <p>3: CRPR/Plants About Which More Information is Needed – A Review List</p>				

Table 4.4-1: Potentially Occurring Special-Status Plant Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
4: CRPR/Plants of Limited Distribution – A Watch List				
0.1: Threat Rank/Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)				
0.2: Threat Rank/Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)				
0.3: Threat Rank/Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)				

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Invertebrates				
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE, PCCP	Vernal pools/wetlands.	November-April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT, PCCP	Vernal pools/wetlands.	November–April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE, PCCP	Vernal pools/wetlands.	November-April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT, PCCP	Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California’s Central Valley from Shasta to Madera counties.	February-June	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.
Monarch butterfly (overwinter population) (<i>Danaus plexippus</i>)	FC	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.		Presumed absent. No overwintering habitat is present within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Crotch's bumble bee (<i>Bombus crotchii</i>)	CC	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico.	March-September	Low potential to occur. The BSA is in the current mapped range, however the high level of disturbance of the BSA may only provide suitable foraging and marginally suitable nesting habitat for this species.
Fish				
Green sturgeon (<i>Acipenser medirostris</i>)	FT, CDFW: SSC	Anadromous; undammed cold-water rivers having relatively deep pools with large substrates.	N/A	Presumed absent. There is no suitable aquatic habitat within the BSA.
Steelhead (CA Central Valley DPS) (<i>Oncorhynchus mykiss irideus</i>)	FT, PCCP	Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems.	N/A	Presumed absent. Auburn Ravine is PCCP Modeled Habitat but there is no suitable aquatic habitat within the BSA.
Chinook salmon (Central Valley spring-run ESU) (<i>Oncorhynchus tshawytscha</i>)	FT, CT	Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems.	N/A	Presumed absent. There is no suitable aquatic habitat within the BSA.
Chinook salmon (Central Valley fall/late fall-run ESU) (<i>Oncorhynchus tshawytscha</i>)	SSC, PCCP	Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems.	N/A	Presumed absent. Auburn Ravine is PCCP Modeled Habitat but there is no suitable aquatic habitat within the BSA.
Amphibians				
California red-legged frog (<i>Rana draytonii</i>)	FT, SSC, PCCP	Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20	January - September	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down.		
Foothill yellow-legged frog Northeast/Northern Sierra Clade (<i>Rana boylei</i>)	CT, SSC, PCCP	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Yuba River to Middle Fork American River and Sutter Buttes.	May-October	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.
Western spadefoot (Northern DPS) (<i>Spea hammondi</i>)	FPT, SSC	California endemic species of vernal pools, swales, and seasonal wetlands in grassland, scrub and woodland habitats throughout the Central Valley and South Coast Ranges. Prefers open areas with sandy or gravelly soils.	Winter-Spring.	Presumed absent. There is no suitable habitat within the BSA.
Reptiles				
Northwestern pond turtle (<i>Actinemys marmorata</i>)	FPT, SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches.	April-September	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Giant garter snake (<i>Thamnophis gigas</i>)	FT, CT, PCCP	Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range.	April-October	Presumed absent. There is no PCCP Modeled Habitat present within the BSA and the BSA is outside the known geographic range of this species (Placer County 2020a).
Birds				
Western grebe (<i>Aechmophorus occidentalis</i>)	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Nests on freshwater lakes and marshes with open water bordered by emergent vegetation.	June-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Clark's grebe (<i>Aechmophorus clarkii</i>)	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Breeds on freshwater to brackish marshes, lakes, reservoirs and ponds, with a preference for large stretches of open water fringed with emergent vegetation.	June-August	Presumed absent. There is no suitable nesting habitat within the BSA.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	CT, CFP, PCCP	Salt marsh, shallow freshwater marsh, wet meadows, and flooded grassy vegetation. In California, primarily found in coastal and Bay-Delta communities, but also in Sierran foothills (Butte, Yuba,	March-September	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 250 feet of the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		Nevada, Placer, El Dorado counties).		
Marbled godwit (<i>Limosa fedoa</i>)	BCC	Nests in Montana, North and South Dakota, Minnesota, into Canada. Winter range along Pacific Coast from British Columbia south to Central America, with small numbers wintering in interior California. Wintering habitat includes coastal mudflats, meadows, estuaries, sandy beaches, sandflats, and salt ponds.	August-April	Presumed absent. There is no suitable overwintering habitat within the BSA.
Short-billed Dowitcher (<i>Limnodromus griseus</i>)	BCC	Nests in Canada, southern Alaska; winters in coastal California south to South America; wintering habitat includes coastal mudflats and brackish lagoons.	late-August-May	Presumed absent. There is no suitable habitat within the BSA.
Willet (<i>Tringa semipalmata</i>)	BCC	Breeds locally in interior of western North America. In California, breeding range includes the Klamath Basin and Modoc Plateau and portions of Mono and possibly Inyo counties. Breeding habitat includes prairies, Breeds in wetlands and grasslands on semiarid plains; in uplands near brackish or saline wetlands; prefers temporary, seasonal, and alkali wetlands over	April-August	Presumed absent. There is no suitable habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		semipermanent and permanent wetlands.		
California gull (nesting colony) (<i>Larus californicus</i>)	BCC, CDFW WL	Nesting occurs in the Great Basin, Great Plains, Mono Lake, and south San Francisco Bay. Breeding colonies located on islands on natural lakes, rivers, or reservoirs. Winters along Pacific Coast from southern British Columbia south to Baja California and Mexico. In California, winters along coast and inland (Central Valley, Salton Sea).	April-August	Presumed absent. There is no suitable habitat within the BSA.
Black tern (<i>Chlidonias niger</i>)	BCC, SSC	Breeding range includes northeastern California, Central Valley, Great Plains of U.S., and Canada; winters in Central and South America; nesting habitat includes shallow freshwater marsh with emergent vegetation, prairie sloughs, lake margins, river islands, and cultivated rice fields.	May-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Osprey (<i>Pandion haliaetus</i>)	CDFW WL	Nesting habitat requires close proximity to accessible fish, open nest site free of mammalian predators, and extended ice-free season. Nest in large trees, snags, cliffs, transmission/communicate	April-September	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		on towers, artificial nest platforms, channel markers/buoys.		
White-tailed kite (<i>Elanus leucurus</i>)	CFP	Nesting occurs within trees in low elevation grassland, agricultural, wetland, oak woodland, riparian, savannah, and urban habitats.	March-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Golden eagle (<i>Aquila chrysaetos</i>)	CFP, CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g., windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter.	February-August	Presumed absent. Due to the high level of disturbance in and around the BSA, the BSA does not provide suitable nesting habitat.
Northern harrier (<i>Circus hudsonius</i>)	BCC, SSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrubsteppe, and (rarely)	April-September	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		riparian woodland communities.		
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Delisted, CE, CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands.	February-September	Presumed absent. Due to the high level of disturbance in and around the BSA, the BSA does not provide suitable nesting habitat.
Swainson's hawk (<i>Buteo swainsoni</i>)	CT, PCCP	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, irrigated pastures.	March-August	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 0.25 mile of the BSA.
Western screech-owl (<i>Megascops kennicottii</i>)	BCC	Breeding habitat includes vegetation communities with deciduous trees, such as riparian, desert, and oak and pine-oak woodlands.	March-July	Presumed absent. There is no suitable habitat within the BSA.
Burrowing owl (<i>Athene cunicularia</i>)	BCC, SSC, PCCP	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made	February-August	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds.		
Nuttall's woodpecker (<i>Dryobates nuttallii</i>)	BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands.	April-July	Presumed absent. There is no suitable habitat within the BSA.
Yellow-billed magpie (<i>Pica nuttallii</i>)	BCC	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah with large in large expanses of open ground; also found in urban parklike settings.	April-June	Presumed absent. There is no suitable habitat within the BSA.
Oak titmouse (<i>Baeolophus inornatus</i>)	BCC	Nests in tree cavities within dry oak or oak-pine woodland and riparian; where oaks are absent, they nest in juniper woodland, open forests (gray, Jeffrey, Coulter, pinyon pines and Joshua tree).	March-July	Presumed absent. There is no suitable nesting habitat within the BSA.
Bank swallow (<i>Riparia riparia</i>)	CT	Nests colonially along coasts, rivers, streams, lakes, reservoirs, and wetlands in vertical banks, cliffs, and bluffs in alluvial, friable soils. May also nest in sand, gravel	May-July	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		quarries and road cuts. In California, breeding range includes northern and central California.		
Purple martin (<i>Progne subis</i>)	SSC	In California, breeds along coast range, Cascadenorthern Sierra Nevada region and isolated population in Sacramento. Nesting habitat includes montane forests, Pacific lowlands with dead snags; the isolated Sacramento population nests in weep holes under elevated highways/bridges. Winters in South America.	May-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Wrentit (<i>Chamaea fasciata</i>)	BCC	Coastal sage scrub, northern coastal scrub, chaparral, dense understory of riparian woodlands, riparian scrub, coyote brush and blackberry thickets, and dense thickets in suburban parks and gardens.	March-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	BCC, SSC	In California, breeding range includes most coastal counties south to Baja California; western Sacramento Valley and western edge of Sierra Nevada region. Nests in moderately open grasslands and prairies with patchy bare	May-August	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		ground. Avoids grasslands with extensive shrub cover; more likely to occupy large tracts of habitat than small fragments; removal of grass cover by grazing often detrimental.		
Belding's savannah sparrow (<i>Passerculus sandwichensis beldingi</i>)	CE, BCC	Resident coastally from Point Conception south into Baja California; coastal salt marsh. Year-round resident.	March-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Santa Barbara song sparrow (<i>Melospiza melodia graminea</i>)	BCC	Breeding habitat includes dense shrubs and thickets of giant coreopsis (<i>Coreopsis gigantea</i>), grasslands with scattered shrubs, Artemisia-Opuntia grass associations, and dense grasslands. Resident on California Channel Islands (San Clemente, San Miguel, Santa Cruz, Santa Rosa, Anacapa) and Isla Los Coronados, Baja California.	February-July	Presumed Absent. This subspecies is endemic to the Channel Islands.
Song sparrow "Modesto" (<i>Melospiza melodia heermanni</i>)	SSC	Resident in central and southwest California, including Central Valley; nests in marsh, scrub habitat.	April-June	Presumed absent. There is no suitable nesting habitat within the BSA.
Yellow-breasted chat (<i>Icteria virens</i>)	SSC	Early successional riparian habitats with a well-developed shrub layer and an open canopy. Narrow borders of streams, creeks, sloughs, and rivers. Taller	March-September	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		trees like cottonwood (<i>Populus</i> sp.) and alder (<i>Alnus</i> sp.) are necessary for song perches.		
Tricolored blackbird (<i>Agelaius tricolor</i>)	CT, BCC, SSC, PCCP	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields (Beedy et al. 2020).	March-August	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 1,640 feet of the BSA.
Bullock's oriole (<i>Icterus bullockii</i>)	BCC	Breeding habitat includes riparian and oak woodlands.	March-July	Presumed absent. There is no suitable habitat within the BSA.
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County.	March-July	Presumed absent. There is no suitable habitat within the BSA.
Mammals				

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	SSC	Occurs throughout the west and is distributed from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains, with isolated populations occurring in the central and eastern United States. It has been reported in a wide variety of habitat types ranging from sea level to 3,300 meters. Habitat associations include: coniferous forests, mixed meso-phytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Roosting can occur within caves, mines, buildings, rock crevices, trees.	April-September	Presumed absent. There is no suitable roosting habitat within the BSA.
Pallid bat (<i>Antrozous pallidus</i>)	SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of redwoods, cavities of oaks, exfoliating pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as	April-September	Presumed absent. There is no suitable roosting habitat within the BSA.

Table 4.4-2: Potentially Occurring Special-Status Animal Species

Species	Status (ESA, CESA/NPPA, Other)	Habitat Description	Survey Period	Potential to Occur Onsite
		vacant buildings (WBWG 2024).		
<p><u>Notes:</u> CESA = California Endangered Species Act; DPS = Distinct Population Segment; ESA = Federal Endangered Species Act; ESU = Evolutionary Significant Unit; NPPA = Native Plant Protection Act</p> <p><u>Status Codes:</u></p> <p>FC Federal Candidate</p> <p>FE Federal Endangered</p> <p>FT Federal Threatened</p> <p>FPT Federal Proposed Threatened</p> <p>BCC USFWS Bird of Conservation Concern (USFWS 2021)</p> <p>SSC CDFW Species of Special Concern</p> <p>CFP California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5050-reptiles/amphibians)</p> <p>CDFW WL CDFW Watch List</p> <p>PCCP Placer County Conservation Program Covered Species</p>				

Based on information in the Biological Resources Assessment, habitat is present for four special status animal species including: Crotch's Bumble Bee, California Black Rail, Swainson's Hawk, and Tricolored Blackbird. The minimal grassland within and adjacent to the project site represent potentially suitable foraging and marginally suitable nesting habitat for the Crotch's Bumble Bee. The large trees within the vicinity of the site represent potential nesting habitat for California Black Rail, Swainson's Hawk, and Tricolored Blackbird. Special-status birds, such as those listed above, are protected by the Migratory Bird Treaty Act (MBTA). While construction of the project is anticipated to have minimal impacts on Crotch's Bumble Bee and migratory or nesting birds, mitigation would be included to ensure impacts are reduced to less than significant.

Removal of trees should any of the listed avian or other bird species be present during tree removal, or have active nests, typically between February 1 through August 31, would disrupt the species and result in a potential take. To reduce potential impacts to sensitive species that could occur from construction of the proposed project, **MM BIO-1**, **MM BIO-2**, and **MM BIO-3** would be implemented. MM BIO-1 would require an education program for workers, which would make them aware of special status species, sensitive habitats, and avoidance measures; and MM BIO-2 would require preconstruction nesting surveys to determine if species are present and develop avoidance measures. MM BIO-3 would reduce potential impacts to Crotch's bumble bee that could occur as a result of the project. Implementation of these mitigation measures would reduce impacts to special status species to less than significant. Furthermore, the proposed project would be consistent with Placer County Conservation Program (PCCP) General Conditions, Conditions to the Western Placer County Aquatic Resource Program (CARP), and Best Management Practices (BMPs). Impacts would be less than significant with the following mitigation measures incorporated.

Mitigation Measure

- MM BIO-1: Environmental Awareness Training.** Prior to the commencement of construction activities, including grading and equipment staging, construction personnel shall participate in an environmental awareness training program. The program shall include a description of sensitive resources on and adjacent to the site including Waters of the U.S. and State, protected trees and nesting birds and raptors. Permit conditions identified by state and federal agencies regarding the avoidance of these resources shall be discussed and explained during the training.
- MM BIO-2: Nesting Bird Avoidance.** To the extent feasible, construction activities should be scheduled to avoid the nesting season. To avoid impacts to nesting birds, any disturbance shall occur between September 1 and February 1. If seasonal avoidance is not possible, within fourteen days prior to the start of work, a Qualified Biologist shall conduct a preconstruction nesting survey on the project site and within a zone of influence, as access allows (i.e., 100 feet for non-raptor migratory birds and 500 feet for raptors). All nest avoidance requirements of the MBTA and CFGC shall be observed (e.g., establishing appropriate protection buffers around active nests until young have fledged). All nests identified during pre-construction surveys shall be determined "inactive" by a Qualified Biologist

prior to removal. For work continuing in the vicinity of an active nest, temporary no-disturbance buffers, which can be adjusted/increased to ensure disturbance is minimized, around the nest shall be set by a Qualified Biologist and no project activities will occur within the buffer areas until the nest has fledged or has otherwise become inactive as determined by the Qualified Biologist.

MM BIO-3: Crotch's Bumble Bee. If ground-disturbing activities occur between February 1 and October 31, a preconstruction survey shall be conducted by a qualified biologist. To the extent feasible three Crotch's Bumble Bee surveys shall be conducted at 2-to-4-week intervals during the colony active period from April to August.

If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take, and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season (October 31) and/or once the qualified biologist deems the nesting colony is no longer active.

If initial grading is phased or delayed for any reason, preconstruction surveys shall be repeated prior to ground-disturbing activities if nesting habitat is still present or has re-established and will be affected.

- 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 Game or US Fish and Wildlife Service?*

Less than Significant Impact. The National Wetland Inventory identifies a riverine habitat intersecting the project site at the intersection of Ingram Parkway and Ferrari Ranch Road, northeast of the intersection of Ingram Parkway and Ferrari Ranch Road, and at the intersection of Sun City Boulevard and Ferrari Ranch Road (USFWS, 2024). The project site, however, is completely disturbed and this riverine habitat is no longer present.

The nearest riparian habitat located approximately 276 feet (0.05 miles) northwest of the project site is listed as the Auburn Ravine, which is within the Upper Coon-Upper Auburn watershed. The Auburn Ravine is listed within the PCCP Stream System. The Auburn Ravine is not located within the project site. A portion of the PCCP Stream System buffer is located within the project area; however, the project site is listed as Urban/Suburban land cover type on the PCCP Stream system. See **Figure 4.4-1**. Therefore, the project would have minimal impacts on the Auburn Ravine riparian habitat. Nonetheless, the project would be consistent with the PCCP General Conditions and Conditions to the Western Placer CARP and would implement BMPs consistent with the Western Placer CARP, such as implementation of fiber rolls, straw waddles, mulch, tarps, and sandbags. Impacts would be less than significant, and mitigation is not required.

- 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?*

Less Than Significant Impact. The National Wetland Inventory identifies a riverine habitat intersecting the project site at the intersection of Ingram Parkway and Ferrari Ranch Road, northeast of the intersection of Ingram Parkway and Ferrari Ranch Road, and at the intersection of Sun City Boulevard and Ferrari Ranch Road (USFWS, 2024). The project site, however, is completely disturbed and this riverine habitat is no longer present. The nearest wetland is the riverine habitat located approximately 276 feet (0.05 miles) and the Freshwater Forested/Shrub Wetland located approximately 310 feet (0.06 miles) northwest of the project site. The project would not result in the direct removal or fill of these listed wetlands. As mentioned above, the proposed project would be consistent with the PCCP General Conditions, Conditions to the Western Placer CARP, and BMPs. The project would occur within completely disturbed and primarily hardscape area. Impacts would be less than significant, and mitigation is not required.

- 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?*

Less than Significant Impact. The project site occurs within a completely disturbed area and provides limited habitat connectivity to the surrounding open space area. The project is limited to areas within the existing roadways and areas that have previously graded or developed. The project corridor is a north-south two-lane minor arterial and is directly adjacent to open-space land uses northwest of the project site, low-density residential to the southeast and northeast, and commercial land uses to the southwest. Although the open space land uses west of the project site serves as a wildlife movement corridor, the project would not occur within any open-space land uses. Additionally, the Auburn Ravine is located approximately 276 feet (0.05 miles) northwest of the project site and would also provide habitat connectivity for aquatic and semi aquatic species but is not located within the project area. Furthermore, the proposed project would be consistent with the PCCP General Conditions, Conditions to the Western Placer CARP, and BMPs. Because these wildlife corridor features would not be impacted as a result of the proposed project, impacts would be less than significant, and mitigation is not required.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less than Significant Impact. The City has ordinances related to tree preservation and removals listed in Section 15.28.100 and Chapter 18.69 in addition to the Placer County Chapter 19, Conservation, Open Space, and Woodland Conservation, for tree removal guidance. Some street trees may require removal, alteration, and maintenance to facilitate project implementation. All removals, alteration, and maintenance would be in compliance with the City's Municipal Code. Additionally, MM-BIO-2 related to nesting bird surveys would ensure that effects to avian species would be less than significant when trees are required to be removed. Therefore, the project would have a less than significant impact on local biological requirements and would not conflict with associated policies or ordinances related to tree removals.

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Less than Significant Impact. The project site is located in the City of Lincoln and is within Plan Area A of the Western Placer County Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP) (2020) adopted in September of 2020 by the Placer County Board of Supervisors. Although the project is within the boundaries of the HCP/NCCP, the project site is listed as within the Valley subarea, which is characterized as urban and suburban areas surrounded by agricultural uses and natural grassland. Although the project site is directly adjacent to existing protected area and other reserves (EXR) as listed in the HCP/NCCP, the project site is completely urbanized and disturbed with some ornamental landscaping. The HCP/NCCP plan area consists of unincorporated Placer County and the City of Lincoln and does not include the following non-participating cities: Roseville, Rocklin, Loomis, and Auburn. The Western Placer County HCP/NCCP consists of 14 covered species, which are Sawin's hawk (*Buteo swainsoni*), California black rail

(*Laterallus jamaicensis coturniculus*), Western burrowing owl (*Athene cunicularia*), Tricolored blackbird (*Agelaius tricolor*), Giant garter snake (*Thamnophis gigas*), Western pond turtle (*Emys marmorata*), Foothill yellow-legged frog (*Rana boylei*), California red-legged frog (*Rana draytonii*), Central Valley Steelhead – Distinct Population Segment (*Oncorhynchus mykiss irideus*), Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), conservancy fairy shrimp (*Branchinecta conservation*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*). (Placer County Conservation Program, 2020). Because the project site is listed as urbanized, the project would not affect any of the listed species, it would not be applicable to the project. Furthermore, the proposed project would be consistent with the PCCP General Conditions, Conditions to the Western Placer CARP, and BMPs. No impacts would occur, and mitigation is not required.

Cumulative Impacts

The project site has been completely disturbed and has been modified from its natural state and functions as a minor arterial roadway within the City. The project site is surrounded by existing urban development dominated by residential, commercial, as well as open space uses. Although the project site is adjacent to open space land uses, the project site does not contain any habitat that would support listed sensitive or special status species and does not have the potential to affect such species. The project includes mitigation to reduce impacts to nesting birds and Crotch's Bumble Bee should they occur in the project area. The proposed project would be limited to areas within the existing roadways and areas that have been previously graded or developed. The proposed project would be consistent with the PCCP General Conditions, Conditions to the Western Placer CARP, and BMPs. There are no vacant areas adjacent to the project site that are planned for development, and there are no other past, present or reasonably foreseeable projects that would contribute to project impacts to result in cumulatively considerable impacts to any biological resources. Thus, although the project is within the PCCP Stream System Buffer, the project site does not serve as a significant habitat corridor and does not contain any riparian habitat, federally protected wetlands, or other sensitive natural communities, cumulative impacts to biological resources would have a less than significant impact on biological resources.

4.5 Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

An Archaeological Resources Inventory Report (ASIR) was prepared by ECORP Consulting, Inc. August 2024. The ASIR provided information used to address potential impacts to historic and archaeological resources associated with implementation of the proposed project. The report is summarized below and is included as **Appendix C: Cultural Study** of this Initial Study. The purpose and scope of the ASIR is to document efforts to identify cultural resources that could be affected by the proposed project within what is termed the Area of Potential Effects (APE).

The APE occupies approximately 15.75 acres and is limited to areas within the existing roadways and areas that have previously graded or developed.. Potential impacts to cultural resources were evaluated based on the proposed areas of ground disturbance including demolition of existing roadways and hardscape, excavation to maximum depths of 10 feet for installation of light poles, and trenching between two and three feet for installation of conduits. Efforts to identify cultural resources for this project consisted of a records search and literature review, outreach to historical societies and tribal entities in compliance with Section 106 of the National Historic Preservation Act (Section 106), and an intensive pedestrian survey.

To provide a context and evaluate the potential for resources to exist within the APE, on June 12, 2024, a record search for the proposed project was completed by the North Central Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at California State University, Sacramento. The records search included a search of previously identified sites and surveys present within the APE and a 1/2-mile radius of the APE, as well as 5 sources of maps and 9 sources of historical literature. The Lincoln Area Archives and Museum and the Placer County Historical Society were sent letters on June 17, 2024. No responses to the letters were received from these other interested parties. Responses related to the Sacred Lands File returned negative results.

On January 27, 2025, tribal consultation in accordance with AB 52 (United Auburn Indian Community of the Auburn Rancheria) and records requests were made. A request for consultation was received from the United Auburn Indian Community. At the time of this publication, the City is currently conducting the

consultation with the United Auburn Indian Community in coordination with Anna Starkey, Cultural Regulatory Manager.

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?*

Less Than Significant Impact. The above discussed records search showed that three cultural resources studies were conducted within the APE (Lindstrom and Wells, 1989; Pastron, 1990; Windmiller, 1997). In addition, there were fourteen cultural resource studies conducted within the ½-mile search radius (Napoli, 1997; Linstrom, 1989; Johnson and Osborn, 1990; Stapleton, 2019; Derr and McIvers, 1991; Baxter and Medin, 1999; Windmiller, 1996; Lindstrom et al., 1989; Windmiller, 1997; Herbert and Rogers, 2000; Nowak and Procissi, 2000; Peabody and Mick, 2010; Peabody and Mick, 2011; ECORP Consulting, Inc., 2015).

The records search revealed that six previously recorded cultural resources had occurred within the APE for Site No. CA-PLA-1345H identified as P-31-1713, P-31-3866, P-31-3867, P-31-3868, P-31-3870, and P-31-3871. However, field survey conducted in August of 2024 revealed that these previously recorded cultural resources no longer exist likely due to the construction of the existing Ferrari Ranch Road corridor, and impacts related to historical resources would be less than significant.

Four additional resources have been identified within the larger ½-mile radius. However, these six resources are not within the APE and would not be directly or indirectly affected by the proposed project.

The survey revealed that no known historic resources are present on the project. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Less Than Significant Impact with Mitigation Incorporated. As discussed above, the records searched of the APE did not reveal any known archaeological resources that could be affected by the proposed project. In addition, based on information provided by the Native American Heritage Commission and tribes on the NAHC consultation list, no known resources exist within the project site or APE. Nonetheless, the records search findings indicate that the APE is sensitive for the presence of alluvium created by the Auburn Ravine and the age of the underlying geology. Alluvial deposits tend to preserve archaeological material and create an increased likelihood for pre-contact archaeological sites to be located along perennial waterways; Auburn Ravine is located approximately 276 feet north-northwest of the project area. However, the project site has been previously disturbed due to the construction of the existing roadway, walking trail, and surrounding residential communities.

While no known resources exist and excavation depths would be limited to approximately 10 feet for installation of light poles in addition to trenching between two and three feet in depth for installation of conduits, and the likelihood to encounter buried archaeological resources is low to moderate for intact buried pre-contact archaeological resources, there is the potential for disturbance. Demolition and removal of existing hardscape, and grading and excavation, could result in the inadvertent discovery of unknown archaeological or cultural resources. Implementation could result in damage or destruction of the resource and is considered a potentially significant impact for which mitigation would be required.

Mitigation Measures MM CUL-1 through MM CUL-2 are standard measures applied by Lead Agencies for the purpose of reducing potential impacts from previously unknown archaeological resources and human remains. No further analysis of this issue is required.

Mitigation Measure

MM CUL-1: Contractor Awareness Training Program. The lead agency shall ensure that a Contractor Awareness Training Program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program.

The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The Construction Manager shall provide a copy of the signed training roster to the City of Lincoln Engineering Department as proof of compliance.

MM CUL-2: Unanticipated Archaeological Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered 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 to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the City of Lincoln Engineering Department. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA or a Historic Property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the City of Lincoln Engineering Department, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact with Mitigation Incorporated. There are no known formal cemeteries within the project site, and neither the results of the records search nor the pedestrian survey indicates that human remains are present within the project site. However, there is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains; such disturbance would be a potentially significant impact. Implementation of **Mitigation Measure MM CUL-3** would reduce this impact to a less-than-significant level.

Mitigation Measure

MM CUL-3: Discovery of Human Remains. If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Placer County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must re-bury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Cumulative Impacts

Cumulative impacts to cultural resources are site-specific and not generally subject to cumulative impacts unless multiple projects impact a common resource, or an affected resource extends off-site, such as a historic townsite or district. The cumulative analyses for these resources consider whether the proposed project, in combination with the past, present, and reasonably foreseeable projects, could cumulatively affect any common cultural or paleontological resources.

The proposed project could result in potential site-specific impacts to currently unknown archaeological, and cultural resources discovered during grading and construction. Other projects within the cumulative study area also have the potential to result in damage and/or loss to these resources. The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the City and Placer County would be required to comply with all applicable State, federal, County and local regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required mitigation. Similar to the proposed project, these projects also would be required to implement and conform to mitigation measures, which would reduce impacts to less than

significant. Although in the process of development, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce project-specific impacts to a less than significant level, and the project's contribution to cumulative impacts would be less than significant

4.6 Energy

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. The project would consist of two roundabout intersections expansion on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard. The purpose of the project is to improve intersection operations and safety. The project would not include increased roadway capacity or generate any new automobile, bicycle, or pedestrian traffic that would result in an environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources.

Construction

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, and concrete.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site preparation, grading, infrastructure improvement, and paving. Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Some incidental energy conservation would occur during construction through compliance with California Code of Regulations, Title 13, Sections 2485 and 2449 requiring that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions standards, including the CARB Low Emissions Vehicle (LEV) III and EPA's emissions standards for light-duty vehicles, trucks, and motorcycles. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

The incremental increase in the use of energy bound in construction materials such as asphalt, and concrete would not substantially increase demand for energy compared to overall local and regional

demand for construction materials. It is reasonable to assume that production of building materials such as concrete, would employ all reasonable energy conservation practices in the interest in minimizing the regional demand for construction materials cost of doing business.

As indicated in *Table 4.6-1, Project and Countywide Energy Consumption*, project construction would consume approximately 0.001 gigawatt hours (GWh) of electricity, 47,707 gallons of diesel, and 1,817 gallons of gasoline. Water conveyance for project construction would represent 0.00003 percent of the County's overall electricity consumption. Project construction fuel consumption would constitute approximately 0.13 percent and 0.0014 percent of countywide consumption for diesel and gasoline, respectively. Project energy consumption would constitute less than 1 percent of overall county consumption for electricity, diesel, and gasoline. As such, project construction would have a minimal effect on the local and regional energy supplies. It is noted that construction energy use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would require project construction to be less efficiency compared to other construction sites in the region or State. Construction energy consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. Therefore, potential impacts associated with the wasteful, inefficient, or unnecessary consumption of energy resources from project construction would be less than significant impact.

Table 4.6-1: Project and Countywide Energy Consumption

Source	Project Annual Energy Consumption	Placer County Annual Energy Consumption ^{1,2}	Percentage Increase Countywide
Electricity Use			
Megawatt Hours (GWh)			
Water Consumption	0.001	3089	0.00003%
Diesel Use			
Gallons			
On-Road Construction Trips	6,070	38,110,840	0.016%
Off-road Construction Equipment	41,637	38,110,840	0.11%
Construction Diesel Total	47,707	38,110,840	0.13%
Gasoline			
On-Road Construction Trips	1,817	130,622,623	0.0014%
1. Countywide fuel consumption is from the California Air Resources Board EMFAC2021 model projections for year 2026 (first year of project construction). 2. Construction fuel consumption is based on equipment and load factors from California Emissions Estimator Model (CalEEMod version 2022.1). 3. The estimated construction fuel consumption is based on the project's construction equipment list timing/phasing, and hours of duration for construction equipment, as well as vendor, hauling, and construction worker trips.			
Refer to Appendix D: Energy Data for assumptions used in this analysis.			

Operation

Typically, energy consumption is associated with fuel used for vehicle trips, electricity, and natural gas use. However, project operations would include the operation of the improved roundabout intersections and no increase in vehicle trips or vehicle miles (VMT) are anticipated. Therefore, implementation of the project would not result in increased consumption of fuel/diesel, electricity, or natural gas.

The nature of the proposed improvements would not require a substantial amount of energy for either construction or operational maintenance purposes. As such, the project would not use nonrenewable resources in a wasteful or inefficient manner. Therefore, operational energy impacts would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. As noted above, the project consists of the construction of two roundabout intersections and would not result in significant energy consumption impacts. The project would not conflict with any strategies for renewable energy or energy efficiency. Impacts would be less than significant.

Cumulative Impacts

Project implementation would result in the consumption of fuel and energy, but it would not do so in a wasteful manner, as discussed above. Project operations would improve intersection operations and reduce congestion. The consumption of fuel and energy would not be substantial in comparison to statewide electricity, natural gas, gasoline, and diesel demand. New capacity or supplies of energy resources would not be required. Additionally, the project would be subject to compliance with all Federal, State, and local requirements for energy efficiency.

As noted above, the project consists of the construction of two roundabouts and would not result in significant energy consumption impacts. The project would not be considered inefficient, wasteful, or unnecessary with regard to energy. Thus, the project and identified cumulative projects are not anticipated to result in a significant cumulative impact.

4.7 Geology and Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
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?				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

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.*

Less Than Significant Impact. Fault rupture can occur along or immediately adjacent to faults during an earthquake. Fault rupture is characterized by earth movement leading to ground cracks and displacement which would endanger life and property but damage from fault rupture is typically limited to areas close to the moving fault. According to the City General Plan no known active faults are located in the City, and according to the California Department of Conservation (CDOC), the project site is not located within an earthquake fault zone as designated by the Alquist-Priolo Earthquake Fault Zone Act. The Alquist-Priolo Earthquake Fault Zoning Act (Act) was passed in 1972 to address the hazard of surface faulting to structures for human occupancy.

The proposed project includes roadway improvements and does not include the construction of any habitable structures such as residential, commercial, or industrial uses. Therefore, the proposed project would not exacerbate seismic hazards from fault rupture and expose people or structures to potential substantial adverse effects (i.e. risk of loss, injury, or death). Impacts would be less than significant, and mitigation is not required.

- ii. *Strong seismic ground shaking?*

Less Than Significant Impact.

Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake. Ground shaking is generally the predominant cause of damage during a seismic event. The extent of ground-shaking is a function of by the magnitude and intensity of the earthquake, distance from the epicenter (the point on the earth's surface vertically above the focus of an earthquake), and local geologic conditions.

According to the California Department of Conservation (CDOC) the closest major fault to the project site is the Foothills Fault system approximately 9 miles northeast of the project site. The Foothills Fault trends northwestward along the western portion of the Sierra Nevada starting northeast of Folsom Lake to north of Camp Far West Lake. This fault zone constitutes

major structural elements to the lower Sacramento Valley. The City General Plan does note that the City planning area is within Seismic Risk Zone 3, however, the risk posed for the project area would be less than that of the Bay Area classified as within Risk Zone 4. The project area is within the City of Lincoln planning area and would be within Seismic Risk Zone 3.

The proposed project would not result in the construction of any new habitable structures and is limited to construction improvements within the existing roadway. The project includes excavation to a maximum depth of approximately 10 feet for installation of light poles and trenching between two to three feet for installation of conduits. None of these activities nor operation of the project, however, has the potential to exacerbate the effects of or increase the likelihood of earthquake induced ground shaking. Further, all improvements would be designed and constructed consistent with the most current version of the California Building Code (CBC), which includes specifications and design criteria to minimize damage from anticipated ground shaking. Therefore, the project would result in a less-than-significant impact related to increasing the exposure of people or structures to ground shaking and mitigation is not required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Seismically induced liquefaction occurs when loose, water-saturated sediments of relatively low density are subjected to cyclic shaking which can cause soils to lose strength or stiffness because of increased pore water pressure. Accordingly, ground shaking during an earthquake may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landslides, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils.

The California Geologic Survey (CGS) maps seismic hazard zones, including those susceptible to liquefaction but the project site and vicinity has not been mapped by CGS. The project site, however, is shown as having a low potential for liquefaction on according to the City General Plan. Furthermore, the Department of Conservation California Earthquake Hazards Zone Application does not identify the project site as at risk of ground failures due to either fault rupture, liquefaction, or earthquake-induced landslides. The project area is relatively flat, and the risk of liquefaction is low.

The proposed improvements also would be designed and constructed consistent with the most current version of the California Building Code (CBC), which includes specifications to minimize damage from anticipated ground shaking including liquefaction. Therefore, the project would not increase the potential for liquefaction or impacts thereof. No mitigation is required.

iv. Landslides?

Less Than Significant Impact. Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes in areas with significant ground slopes. The project site is relatively flat and is not adjacent to any areas with steep slopes. The project is not within an area with a high probability of landslides, and there is low susceptibility for landslides (Department of Conservation, 2022; California Geological Survey, 2011). The potential for seismically induced landslides to occur at the project sites would be the same as in the existing condition. As such, the project site is exposed to little or no risk from landslides, impacts would be less than significant, and mitigation is not required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The project site and surrounding area east of the project site is completely urbanized while west of the project site is open space. The project would occur within existing hardscape and landscaping with some of the project improvements occurring on already disturbed soils. Grading and construction for the project would require the removal of existing hardscape including portions of the roadways and sidewalks and existing landscaping within the project footprint. Construction activities would temporarily remove groundcover and hardscape and increase the exposure of soils to water and wind erosion. Exposed soils that are not properly contained or capped increase the potential for increased airborne dust and increased discharge of sediment and other pollutants from the site. Erosion of soils during construction can be minimized by using appropriate controls during construction. The project would implement a stormwater pollution prevention plan (SWPPP) to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP will include best management practices (BMPs) (i.e. use of silt fence, hay bales, straw wattles, storm drain filters, etc), to minimize the potential for sediments and pollutants to enter the stormwater drainage system to downstream receiving waters or otherwise be carried off-site.

The proposed project would comply with the requirements of the Chapter 12.29 – Construction Storm Water Runoff Control of the Lincoln Municipal Code. This section is intended to protect water quality in watercourses and water bodies by reducing pollutants in urban stormwater discharges to the maximum extent practicable and by effectively prohibiting non-stormwater discharges to the storm drain system. This section includes discussion of BMP to minimize to impacts to water quality consistent with the requirements of the NPDES permit issued to the City of Lincoln by the California Regional Water Quality Control Board (RWQCB) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.). Compliance with State and local regulations regarding stormwater during construction, including preparation and implementation of a SWPPP and construction BMPs, would ensure that the proposed project would result in less than significant impacts related to erosion and mitigation is not required.

- 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?*

Less Than Significant Impact. The project site and surrounding areas are generally flat, which is not anticipated to result in liquefaction, liquefaction induced lateral spreading, or landslides. See Sections aii) and aiii) above.

Collapsible soils are defined as any unsaturated soil that goes through a radical rearrangement of particles and greatly decrease in volume upon wetting, additional loading, or both. Underlying soils predominantly consist of loamy soils over more than 6 feet. This loamy soil is considered well drained and predominantly nonhydric. A minor portion of the project boundary is located on xerofluvents, or frequently flooded soils that are hydric and are somewhat poorly drained. However, the project would not make any roadway improvements in areas with xerofluvents and would avoid these frequently flooded areas. The proposed roundabouts and other roadway improvements would be limited within well drained and predominantly nonhydric soils. The project does not contain any slopes subject to collapse and the project would replace the existing roadway with the same uses and would develop on areas within the existing roadways and areas that have previously graded soils. Thus, the project site is not at a substantial risk of collapse.

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur as a result of human activities. Common causes of land subsidence from human activity including pumping water, oil, and gas, and other mining activities from underground reservoirs leaving voids that can be collapse when exposed to seismic activity. According to the USGS areas of land subsidence mapping program in California, the project site is not in an area susceptible to subsidence.

Lastly, the project would comply with all International Building Code (IBC) and Uniform Building Code (UBC) construction standards to ensure the potential for geologic hazard effects on the project site are minimized. Thus, impacts would be less than significant, and mitigation is not required.

- 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?*

Less Than Significant Impact. Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections. Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. According to the USDA Web Soil survey, the project site contains primarily Ramona sandy loam with xerofluent west adjacent to the project site (USDA, 2024). Given the soils identified on site, adherence to applicable Federal, State, and Local rules and regulations, and conformance to the ICB and CBC during construction would ensure impacts from expansive soils are less than significant impact.

- 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?*

No Impact. The proposed project is a roadway improvements project and does not include any habitable structures that would require wastewater disposal. The proposed project does not include any elements of an alternative wastewater disposal system and no impacts would occur.

- f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant with Mitigation Incorporated. There are no known paleontological resources located in project area, however, the City of Lincoln General Plan EIR does note that there is potential for paleontological resources to occur within the City of Lincoln Planning area especially undeveloped areas.

However, because the project site is currently used as a roadway, has already been disturbed, and previous excavation and grading has occurred to prepare the site for roadway construction, it is unlikely to contain any unique paleontological resources. In addition, the area directly east of the project site also is highly urbanized and has undergone substantial development further reducing the potential for the site to contain such resources. Although the area west of the project site is zoned as open space, the project would not extend beyond the existing Class I path land has already been disturbed. The project proposes excavation to a maximum depth of approximately 10 feet for installation of light poles and trenching between two to three feet for installation of conduits. Therefore, it is unlikely that grading and excavation would inadvertently unearth unknown paleontological resources.

Nonetheless, there is a possibility that future ground-disturbing activities could uncover and cause damage to, or the destruction of, previously undiscovered paleontological resources or unique geologic features. Implementation of MM GEO-1 would reduce potential impacts to a less-than-significant level. MM GEO-1 would require notification of a qualified paleontologist if during initial site disturbance and excavation activities paleontological resources are uncovered. As part of the mitigation, a resource recovery plan would be implemented, and this would reduce impacts to less-than-significant.

Mitigation Measure

MM GEO-1: If any paleontological resources are encountered during ground-disturbance activities, all work within 50 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall

be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and City are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular site's soil characteristics, topography, and proposed land uses. Cumulative effects related to geology resulting from the implementation of proposed improvements would not expose more persons and property to a substantial increase in the potential to be affected by impacts due to seismic activity and construction of the project would not exacerbate existing geotechnical hazards. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. While implementation of the proposed project, taken in conjunction with other past present and reasonably foreseeable projects, the proposed project would not increase the number of people and structures subject to a seismic event or increase the potential for such events to occur. In addition, seismic and geologic significance are considered on a project-by-project basis typically through the preparation of a design-level geotechnical studies, and conformance to applicable policies related to design and conformance to applicable building codes. As such exposures are anticipated to be minimized through strict engineering guidelines that provide protection against known geologic hazards and potential geologic and soil related impacts. Thus, the proposed project would not contribute to a cumulatively considerable geologic and/or soils impacts and impacts would be less than significant.

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns and precipitation. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), as well as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These “greenhouse” gases (GHGs) allow solar radiation (sunlight) into the Earth’s atmosphere but prevent radiative heat from escaping, thus warming the Earth’s atmosphere. GHGs are emitted by both natural processes and human activities. Concentrations of GHG have increased in the atmosphere since the industrial revolution. Human activities that generate GHG emissions include combustion of fossil fuels (CO₂ and N₂O); natural gas generated from landfills, fermentation of manure and cattle farming (CH₄); and industrial processes such as nylon and nitric acid production (N₂O).

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the “cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas.” The reference gas for GWP is CO₂; therefore, CO₂ has a GWP factor of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP factor of 28, and N₂O, which has a GWP factor of 265. When accounting for GHGs, all types of GHG emissions are expressed in terms of CO₂ equivalents (CO₂e) and are typically quantified in metric tons (MT) or million metric tons (MMT).

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, established a State goal of reducing GHG emissions to 1990 levels by the year 2020, which would require a reduction of approximately 173 MMT net CO₂e below “business as usual” emission levels. SB 32 was signed into law in 2016 and establishes an interim GHG emission reduction goal for the State to reduce GHG emissions to 40 percent below 1990 levels by the year 2030. SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Additionally, AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG

emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels.

GHG Thresholds

In the absence of an adopted numerical threshold by the lead agency applicable at the project level, the significance of the project-related GHG emissions can be determined by evaluating the project's compliance with regulations or requirements adopted to implement statewide, regional, or local plans for the reduction or mitigation of GHG emissions. The State's 2030 target (to reduce GHG emissions to 40 percent below 1990 levels by 2030) as presented in the 2022 Scoping Plan has been codified in law through SB 32. Therefore, 2030 marks the next statutory statewide milestone target applicable to the project.

The proposed project site is located within the jurisdiction of the PCAPCD. The PCAPCD's CEQA Handbook provide significance thresholds for project GHG emissions that are used by the City of Lincoln. If the PCAPCD thresholds are exceeded, a potentially significant impact could result. These recommendations represent the best available science on the subject of what constitutes a significant GHG effect on climate change for this project. The PCAPCD's recommended thresholds are as follows:

- "Bright-line Threshold of 10,000 metric tons of CO₂e per year for the construction and operational phases of land use projects as well as the stationary source projects
- "Efficiency Matrix for the operational phase of land use development projects when emissions exceed the De Minimis Level, and
- "De Minimis Level for the operational phases of 1,100 metric tons of CO₂e per year."

The City of Lincoln currently does not have a GHG emission reduction plan. The City also does not address GHG emissions in its General Plan with the exception of policies promoting shade tree planting within residential lots and encouraging 50 percent of tree sharing within the parking lot.

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant Impact

Short-Term Construction Greenhouse Gas Emissions

Construction of the project would result in direct emissions of CO₂, N₂O, and CH₄ from construction equipment and the transport of materials and construction workers to and from the project site. Total GHG emissions generated during all phases of construction in 2026 and 2027 are presented in *Table 4.8-1, Construction Greenhouse Gas Emissions*. The CalEEMod outputs are contained within **Appendix A**.

Table 4.8-1: Construction Greenhouse Gas Emissions

Construction Year	Maximum Construction Emissions (MTCO ₂ e per Year)	PCAPCD Construction Emissions Threshold (MTCO ₂ e per Year)
2026	468	10,000
2027	35	
Source: CalEEMod version 2022. Refer to Appendix A for model data outputs.		

As shown in *Table 4.8-1*, the project construction would result in 468 MTCO₂e in 2026 and 35 MTCO₂e in 2027. Thus, the project's CO₂e levels are below the PCAPCD's threshold of 10,000 MTCO₂e per year. Once

construction is complete, the generation of construction-related GHG emissions would cease. Since the project's construction emissions are below the PCAPCD's threshold, the project would have less than significant impact.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of the proposed project. Generally, GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators.

The project consists of the construction of two roundabouts on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard to improve intersection operations and safety. Project operations would not result in new automobile trips. Therefore, no GHG emissions are expected to be generated from operation of the proposed project and impacts are less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. PCAPCD implemented significance thresholds of 10,000 metric tons of CO₂e per year for the construction-related emissions. As described in 4.8 (a), project construction emissions in both 2026 and 2027 would not exceed the PCAPCD significance threshold. In addition, the proposed project would comply with all PCAPCD applicable rules and regulations during construction and would not interfere with the State's goals of reducing GHG emission to 1990 levels by 2020 as stated in AB 32; a 40 percent reduction below 1990 levels by 2030 as noted in SB 32; and achieve carbon neutrality by 2045 per AB 1279. Therefore, the proposed project would have a less than significant impact on GHG emissions.

Cumulative Impacts

The project proposes two roundabouts and would not increase roadway capacity. The project would reduce traffic delay and pollutant emissions with less intersection delays and queues. The project would not generate increased emissions for new vehicle traffic and would potentially improve emissions from reduced idling and delay. The project would not conflict with any GHG reduction plan. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.

4.9 Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. Construction equipment and construction activities include the use of heavy equipment and paints and solvents and other petroleum-based products, typically used for on-site construction equipment and that would be used during operation of the project, primarily maintenance and repairs. These materials would be used during site preparation, removal and grading, excavation, slurry application and paving of the new roadways, installation of curb and gutter, utility installation and other associated construction needs. The use of these materials and equipment is typical for this type of construction and typically do not represent a substantial risk when property operated. However, if an accident or a release does occur, a spill of these materials could pose a threat to human health and safety, could contaminate water, species and habitat, and/or agricultural resources.

All potentially hazardous materials such as fuels, greases, lubricants, solvents, or other materials would be used during construction of the proposed project would be handled on-site in accordance with applicable recommendation and safe handling requirements. The use or handling of these potentially hazardous materials also would be short-term and only during the construction phase of proposed project.

All transport, removal, and disposal of hazardous materials to or from the project site would be conducted by a permitted and licensed service provider consistent with federal, state, and local requirements including the EPA, the California Department of Toxic Substances Control (DTSC), the California Occupational Safety and Health Administration (Cal/OSHA), Caltrans, the Resource Conservation and Recovery Act, and the City of Lincoln fire department. Compliance with local, state, and federal regulations would ensure that the short-term construction impacts associated with the handling, transport, use, and disposal of hazardous materials would be less than significant. No mitigation would be required.

- 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?*

Less Than Significant Impact. As previously mentioned, the project site is within an urbanized corridor and existing roadway. Within the project corridor there are no areas reported to have experienced a hazardous materials incident.

Adjacent to the project site, however, there are two locations, that are listed on the Department of Toxic Substances Control (DTSC) Envirostor list (DTSC, 2024) and the same two sites are listed on the Regional Water Quality Control Board (RWQCB) (RWQCB, 2024) Geotracker list as having experienced a hazardous materials incident. It should be noted that both sites have been closed. Each is discussed in additional detail as follows:

FORMER LINCOLN CORPORATION YARD (SL0606170352) (11 Mcbean Park Drive) – This case was opened on 5/1/2006 and closed on 9/6/2012. Before the hazardous site was closed, there was concern for the following contaminants: Metals, waste oil/motor/hydraulic/lubricating. However, based on the soil investigation, groundwater monitoring, and cleanup results, Central Valley Regional Water Quality Control Board staff believe there is no significant threat to groundwater resources, human health or the environment from this site. The hazardous site is also downgrade from our proposed project site, and any potential contaminants would not be exposed with implementation of the project. Furthermore, the closed status indicates a low risk for hazards. Therefore, impacts would be less than significant effect, and no mitigation required.

LINCOLN CITY CORPORATE YARD (T0606100279) (11 Mcbean Park Drive) – This case was opened on 9/12/1997 and closed on 10/6/1998. Before the site was closed, there was concern for the following contaminant: Gasoline. However, based on the soil investigation, groundwater monitoring, and cleanup results, Central Valley Regional Water Quality Control Board staff believe there is no significant threat to groundwater resources, human health or the environment from this site. The hazardous site is also downgrade from our proposed project site, and any potential contaminants would not be exposed with implementation of the project. Furthermore, the closed status indicates a low risk for hazards. Therefore, impacts would be less than significant effect with no mitigation required.

The use, clean up, and disposal of any potentially hazardous construction materials encountered during construction will be managed according to standard procedures to protect air quality, water quality, and the environment as per state laws and is not expected to result in a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Operation of the proposed project would not result in a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The proposed project includes roadway widening, infrastructure, and associated improvements. The proposed project does not include any uses that would result in the generation or disposal of hazardous materials. While the roadway could be used by vehicles transporting materials, these vehicles would already be using the existing roadways and the project would not substantially increase the use of the roads for such activities. In addition, transport of hazardous materials would be done in accordance with regulations pertaining to their transport.

Excavation at the proposed project would occur to a maximum depth of approximately 10 feet for installation of light poles and trenching, and between two to three feet for installation of conduits. Some of the materials are anticipated to be recycled and crushed for reuse such as for road base. Import of soils is not anticipated, however, if import is required the procedures and guidance in the DTSC Information Advisory Clean Imported Material Fact Sheet would be

followed. This would minimize the potential of introducing material that may result in a potential risk to human health or the environment at the project site.

Thus, compliance with federal, state, and local regulations and the incorporation of the proposed project design features would reduce impacts associated with the handling, transport, use, and disposal of hazardous materials, and the release of hazardous materials into the environment would be less than significant.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant Impact. The nearest school to the project site is Guiding Stars Academy, approximately 0.29 miles to the northwest. There are no schools within 0.25 miles of the project. The project site would be in compliance with federal, state, and local regulations. The proposed project would not create hazardous emissions or handle hazardous materials or increase the handling of materials or waste. The project consists of roadway improvements and does not include any industrial uses which could generate hazardous emissions or involve the handling of hazardous materials, substances, or waste that would have an impact to surrounding schools. Ferrari Ranch Road would continue to be used in the same way as present post construction, and the project would not increase the emission or handling or transport of hazardous or acutely hazardous materials. As such, all preventative measures would be in place to limit the hazardous emissions and waste in such a way that would not impact the neighboring school. Impacts would be less than significant, and no mitigation is required.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less Than Significant Impact. There are no superfund sites or hazardous waste and substances sites (Cortese List) within the project site boundaries. The nearest Cortese listed site is at the Union Pacific Railroad J.R. Davis Yard, which is approximately 10.5 miles south from the project site. Therefore, impact in this regard would be less than significant and mitigation is not required.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Less Than Significant Impact. The project is not located within an airport land use plan. The closest airport to the project site is Lincoln Regional Airport, which is approximately 3.4 miles away, and not within the area of influence of the existing airport land use plan. Furthermore, the proposed project consists of roadway improvements within an existing corridor and does not include any uses, such as residential or commercial, that would place a substantial number of people within an airport influence area (AIA) such that they would be exposed to substantial noise generated by aircraft approaching or taking off from the airport. Because the project would replace an existing roadway with a similar use, there would not be a substantial change in people's exposure to noise from airport operations. Therefore, impacts would be less than significant, and mitigation is not required.

- f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The project site is located within an existing roadway with open space land uses and residential neighborhoods in the adjacent areas. The proposed roundabouts and circulation improvements would allow for greater emergency access relative to existing conditions. During construction minor interruptions to service could occur, but full road closures are not anticipated and emergency services both for routine and emergency responses and evaluation would remain usable. Thus, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

- g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less Than Significant Impact. The project site is not located within an area identified as having a high wildland fire potential. The proposed project is not located within a Very High Fire Hazard Severity Zone (VHFHSZ). The project site consists of roadway improvements in a primarily urbanized area. The project does not include any uses that would result the construction of new uses that would place people in proximity to any area that would be in danger of exposure to a wildfire. Thus, the proposed project is not located in such an area and the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

The incremental effects of the proposed project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific. The proposed project is also not within an area classified as a VHFHSZ. Therefore, the proposed project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. The proposed project would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

4.10 Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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 substantial erosion or siltation on- or off-site?			X	
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
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?		X		
iv. Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

- a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less Than Significant Impact. The project site falls within the Auburn Ravine Watershed. The project site is completely disturbed but is adjacent to open space consisting of the Auburn Ravine located approximately 276 feet (0.05 miles) northwest of the project site and flows in a southwest direction. The Auburn Ravine Watershed is located north of the American River watershed and northeast of the City of Sacramento. The headwaters of the Auburn Ravine are located in the western Sierra Nevada foothills near the Town of Auburn. The Auburn Ravine is a stream that transitions into a channel that may also pass through a variety of culverts. Additionally, according to the National Wetlands Inventory, the proposed project would overlap with a riverine habitat at the intersection of Ingram Parkway and Ferrari Ranch Road and at two locations north of this intersection but south of the Sun City Boulevard and Ferrari Ranch Road intersection (USFWS, 2024). Although the project would widen the existing road, the project would remain within the existing roadways and areas that have previously graded or developed, and the proposed project would not impact these wetlands.

The project will require construction activities approximately 275 feet from the Auburn Ravine located northwest of the project site. During the project grading activities, trenching for utilities, and other standard ground-disturbing activities topsoil would be exposed. After grading and prior to overlaying the ground surface with the new roadway and impervious surfaces, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants. If not properly controlled, this has the potential to violate water quality standards or waste discharge requirements.

To ensure that stormwater runoff from the project site does not adversely increase pollutant levels, a stormwater pollution prevention plan (SWPPP) with BMPs would be implemented. BMPs would be used to reduce the potential for pollutants in stormwater runoff from leaving the site. BMPs could include, but are not limited to, tracking controls, perimeter sediment controls, drain inlet protection, wind erosion/dust controls, and waste management control. The BMPs would be implemented in accordance the site-specific SWPPP in compliance with the National Pollution Discharge Elimination System (NPDES). With these measures, the project would have a less than significant impact related to water quality and water discharge requirements. Additional mitigation would not be required.

- b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less Than Significant Impact. The proposed project is within the North American Subbasin of the larger Sacramento Valley Basin. The project would replace and widen an existing impervious hardscaped roadway with similar uses and does not include any uses such as residential, commercial, or industrial, that would result in a substantial increase in the demand for water, including groundwater. During construction, a minimal amount of water would be used for construction and would be needed for activities such as watering bare ground for erosion control. The completed project does include the addition of landscaping that would minimally increase permeable surfaces and potential for infiltration to groundwater. Thus, the project would not directly reduce groundwater or the potential for groundwater recharge in conflict with any groundwater management plan. Impacts would be less than significant, and mitigation is not required.

- 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 substantial erosion or siltation on- or off-site?*

Less Than Significant Impact. Implementation of the proposed project would potentially cause minor alterations to the Auburn Ravine. The existing roadway is an impervious surface and water drains to roadside drop inlets. The project improvements would increase impervious surfaces and incrementally increase the volume of stormwater runoff.

The project site and surrounding areas consist of urbanized land uses to the east and open space land uses to the west. The open space land uses to the west of the project site consist of the Auburn Ravine approximately 0.05 miles (276 feet) west of the project site. The existing roadway is an impervious surface and stormwater runoff drains to an existing stormwater drainage system. The project improvements would widen the existing roadways and may potentially result in changes to the existing drainage patterns. However, the project does include new landscaped areas, such as a landscaped median, that would encourage additional water infiltration. Furthermore, the project would limit grading to the amount necessary to provide stable areas for the street rights-of-way. Project construction would also follow BMPs for erosion and sediment control to prevent construction-related contaminants from leaving development sites and polluting local waterways. Thus, the project would not substantially alter the drainage pattern resulting in substantial siltation or erosion.

In addition, as discussed in a), above. The proposed project would comply with the NPDES permit and implement a SWPPP with BMPs that would reduce the potential for substantial siltation and erosion. Thus, impacts from project implementation and operation would be less than significant in this regard.

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

Less Than Significant Impact. Related to the volumes of surface runoff, the proposed project would be subject to the requirements outlined in the City of Lincoln Storm Water Management Program and Municipal Code Chapter 13.30 on Construction Storm Water Runoff Control which has the purpose of protecting and promoting the health, safety and general welfare of the citizens of the City by prohibiting non-authorized non-stormwater discharges to the stormwater conveyance system. These requirements assist with protection of waterbodies through compliance with the Clean Water Act, Porter Cologne Water Quality Control Act, and NPDES permitting process.

To ensure the drainage plans are sufficient, the proposed project would be designed with a site-specific storm drainage plan and improvements would be made consistent with the City of Lincoln Design Criteria, the West Placer Storm Water Quality Design Manual, and the Placer County Flood Control District Storm Water Management Manual as outlined in Section 6, Storm Drainage, of the City of Lincoln Public Facilities Improvement Standards. Prior to project approval, the City of Lincoln Engineering and Utilities Department would review the storm-water improvement plans to ensure they would be adequate infrastructure capacity to collect and direct stormwater runoff to the conveyance system and to downstream areas such that flooding would not occur on-site or off-site. Incorporation of these project design measures would ensure impacts are less than significant.

- 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?*

Less than Significant with Mitigation Incorporated. To further reduce the potential for effect related to flooding and water runoff, the project also would include a SWPPP with BMPs to reduce the potential for pollutants carried by stormwater from leaving the site and adversely affect downstream receiving water. The BMPs would reduce the volumes of disturbed soils, erosion, sediment, and pollutants from roadways to make their way into downstream waters. BMP's during both construction, such as the use of haybales, straw waddles, revegetation/hydroseeding, etc., and operations, such as the use of marked storm drains, filter socks, in drain screening media, etc., would be used during the two phases of the project. Mitigation Measure MM HYD-1 would be implemented and would require a detailed storm drainage infrastructure plan. MM HYD-1 would require a storm drainage plan to be designed and engineered to ensure that the post-project runoff is equal to or less than pre-project runoff and in on- off-site flooding impacts.

Mitigation Measure

MM HYD-1: The proposed project's storm drainage infrastructure plan shall, to the satisfaction of the City engineer demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site to proposed stormwater conveyance system and demonstrate that the

project will not result in on or off-site flooding impacts. If the City engineer determines that the proposed stormwater drainage system would not be adequate, comments would be provided, and amendments to the plans shall be made to the engineer's satisfaction.

iv. Impede or redirect flood flows?

Less Than Significant Impact. The project site and surrounding areas are mapped in the Federal Emergency Management Agency (FEMA) Flood Map Service Center. The project site would be located primarily on Zone X, area of minimal flood hazard, and Zone X, 0.2% annual chance flood hazard. However, a small portion of the project site would be adjacent to a Special Flood Hazard Area (SFHA) with a base flood elevation (BFE) of 166 feet. The project would be directly adjacent to a special flood hazard area without a BFE to the west. The project would be within approximately 275 feet of a regulatory floodway Zone AE consisting of the Auburn Ravine to the west and north of the project site and the Ingram Slough Overflow south of the project site. There is an effective Letter of Map Revision (LOMR) north of the project site listed as LOMR 21-09-1152P effective 6/24/2022. A LOMR is a result of physical measures that affect the hydrologic or hydraulic characteristic of a flooding source resulting in the modification of the existing regulatory floodway, the effective BFE, or SFHA. The project would replace and incrementally widen the existing roadway with the same uses and would be within the existing roadway areas and areas that have previously graded or developed. Project improvements would not be within a regulatory floodway. Therefore, the proposed project would not substantially alter the drainage pattern or place any structures or uses within the project corridor that have the potential to impede or redirect flood flows. Impacts in this regard would be less than significant and mitigation is not required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The proposed project is located approximately 126 miles inland from the Pacific Ocean and there are no contained water bodies in proximity. As such, the potential for the project site to be inundated by a tsunami or seiche would not occur. Impacts would not occur and mitigation is not required.

- e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less Than Significant Impact. As previously mentioned, the proposed project is within the North American Subbasin of the larger Sacramento Valley Groundwater Basin (SVGWB). The North American Subbasin is approximately 351,000 acres. The SVGWB is within the large Sacramento River Hydrologic Regions. The eastern portion of the Sacramento River Hydrologic Region is within the Northern Central Valley Drainage Area. The Sacramento River Hydrologic Region of the basin is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade and Trinity mountains to the north, and the Sacramento-San Joaquin River Delta to the south. Groundwater is used extensively in the San Joaquin Valley Groundwater Basin, primarily for agricultural and urban uses.

North American Subbasin Groundwater Sustainability Plan

A Groundwater Sustainability Plan was adopted for the North American Subbasin area. The North American Subbasin consists of the West Placer Groundwater Sustainability Agencies (GSAs), the South Sutter Water District GSA, Reclamation District 1001 GSA, Sutter County GSA, and the Sacramento Groundwater Authority (SGA) GSA. All five GSAs entered into a mutual agreement, or Memorandum of Agreement (MOA) for monitoring and reporting in the Subbasin. The North American Subbasin 2021 GSP was adopted by each GSA and submitted to the Department of Water Resources (DWR) on January 24, 2022. The GSA's have adopted the Final North American Subbasin Groundwater Sustainability Plan (GSP), which will be submitted to the California Department of Water Resources (DWR) who has up to two years to review. Prior to final approval the GSA will prepare an Annual Report for the subbasin. The Annual Report was submitted to the DWR for the Water Year 2021, 2022, and 2023. The GSAs will also continue to coordinate to monitor conditions in the Subbasin, implement projects and actions to manage the sustainability of the groundwater resources, and update the GSP every five years.

City of Lincoln 2020 Urban Water Management Plan

The City of Lincoln adopted the 2020 Urban Water Management Plan (UWMP) on June 8, 2021. The UWMP would help ensure the City of Lincoln maintains a safe and adequate water supply. The plan is consistent with the Urban Water Management Planning Act established by Assembly Bill (AB) 797 on September 21, 1983. Furthermore, the UWMP provides guidance as changes in water and management conditions arise. The project is within the City Water Service Area and Nevada Irrigation District Service Area. However, the project does not propose new uses that would substantially obstruct with the City of Lincoln UWMP. The City of Lincoln UWMP identifies a 16-inch or smaller pipeline diameter adjacent to the project site. However, the project site would not interfere with this pipeline. The project would maintain the existing uses and would not conflict with the goals of the UWMP.

As previously discussed, the proposed project includes the widening of an existing roadway and the construction of additional hardscapes. While this would reduce the potential for recharge in these specific areas, the reduction would not be substantial. In addition, runoff from these areas would be conducted off-site to the stormwater drainage facilities which would enable ground water infiltration. In addition, the proposed project would include landscaped medians that would allow

stormwater to infiltrate and recharge the aquifer. Lastly, the proposed project does not propose uses that would require ground water supplies that could reduce water volumes in the aquifer. Thus, the proposed project would not impede ground water recharge or conflict with an applicable ground water management plan. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

The potential impacts related to hydrology and storm water runoff are typically site specific and site specific BMPs are implemented at the project level. The analysis above determined that the implementation of the proposed project would not result in significant impacts. In regard to proposed project impacts that would be considered less than significant, and impacts are not anticipated to result in compounded or increased impacts when considered with similar effects from other past, present, and reasonably foreseeable probable future projects. Other projects also would be subject to similar laws and requirements regarding hydrology practices, and would undergo evaluation and the development review process which would ensure their implementation.

Projects would be required to adhere to applicable General Plans goals, policies, and action statements; the City of Lincoln's Municipal Zoning Code; the City's Public Facilities Improvement Standards; The City's Design Criteria and Procedures Manual; and the City's stormwater management guidelines regarding stormwater runoff and infrastructure. In addition, as discussed above, other projects would be required to implement stormwater pollution best management practices during construction and design measures to reduce water quality impacts and comply with the NPDES Municipal Regional Permit. Future developments in the watershed would also be required to comply with the State Water Resources Control Board (SWRCB) and RWQCB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits and the Water Quality Control Plan, as needed and prepare and implement SWPPPS, implement construction BMPs, including BMPs to minimize runoff, erosion, and storm water pollution, comply with other applicable requirements. As part of these requirements, projects would be required to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. Conformance to these measures would minimize runoff from those sites and reduce contamination of runoff with pollutants. Therefore, related projects are not expected to cause substantial increases in storm water pollution. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.11 Land Use and Planning

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?			X	
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?			X	

a) *Physically divide an established community?*

Less Than Significant Impact. Projects that typically have the potential to divide an established community include the construction of new freeways, highways, or roads, or other uses that physically separate and make travel between existing communities more difficult. Land uses surrounding the project site consist of a mix of residential and recreational uses. The project would occur within two major connectors and one local roadway within the City.

The proposed project would provide traffic, pedestrian and bicycle improvements that would increase safety and enhance mobility and connectivity for users travelling along Lincoln Ferrari Ranch Road. The proposed project would primarily occur within the existing right-of-way but would require minor property acquisitions; however, the property acquisitions would not disrupt any existing business or residences or result in the division of an established community.

The proposed project would improve the existing alignment, traffic flow, and safety. The proposed project would facilitate pedestrian improvements by calming traffic, making road crossing safer, and improving access to adjacent neighborhoods. While the project would alter the existing roadways and could create short term access restrictions, these changes would be temporary and only occur during the construction period. Thus, the proposed project is considered an improvement compared to the existing conditions, would not result in the construction of any new roadways or physical barriers that could divide or disrupt any community. Impacts would be less than significant, and mitigation is not required.

- 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?*

Less Than Significant Impact. The key planning documents that are directly related to, or that establish a framework for the development of the proposed project include the City of Lincoln General Plan, the Twelve Bridges Specific Plan, and Sun City Hills General Development Plan, the City of Lincoln Zoning Ordinance, the City of Lincoln Bicycle Transportation Plan. Land uses surrounding the project predominantly include residential and open space consistent with the General Plan designations and City zoning. Accordingly, the project would be consistent with the City's zoning and General Plan land use designations and the proposed project would not require any changes to any of the existing land uses that would result in impacts on the environment. Further, the project would not conflict with existing land use policies adopted for the purpose of avoiding or mitigation an environmental effect. Therefore, potential impacts are considered less than significant, and mitigation is not required.

Cumulative Impacts

Implementation of the proposed project would not create a significant cumulative impact to the surrounding region since its surrounding area is planned for uses that are consistent with the widening of the roadway and the intersection improvements to improve existing traffic conditions and serve future planned uses. As a result, no cumulative impacts related to land use and planning would occur.

4.12 Mineral Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
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?			X	

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

Less Than Significant Impact. The project site is disturbed and within an urbanized area with adjacent residential and open space land uses. It is unlikely that the project would extract mineral resources within the already disturbed project site. Additionally, the project is within the Greater Sacramento Area Production-Consumption Region, and the nearest mine within the region to the project site is the Teichert Aggregate Facility Lincoln Mine located approximately 3.8 miles northwest of the project site. (California Geological Survey, 2018). Therefore, the project would not affect this mineral resource identified significant within the region. Therefore, the proposed project would not inhibit the continued use of any other undeveloped or currently operating site for mineral extraction. Furthermore, there are no wells located on the project site. The closest well is located approximately 6.5 miles northwest of the project site (Department of Conservation, 2024). Therefore, the project would not result in the loss of availability of a known mineral resource and no impact would occur.

- 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?*

Less Than Significant Impact. The project site would occur within the existing roadways and areas that have been previously graded or developed. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones according to the known or inferred mineral potential of the area. The project site is classified as a MRZ-1 which defines an area where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits (CDOC, 1982). The project would be adjacent to MRZ-4, which is defined as areas where there is not enough information available to determine the presence or absence of mineral deposits. However, the project would occur on already disturbed land, and the likelihood of encountering a mineral resource is unlikely. The City of

Lincoln General Plan does list the Gladding-McBean Clay Mine as a mineral resources site; however, this is located approximately 2 miles northwest of the project site. The project would not result in the loss of a mineral resource site identified in the General Plan. Thus, the proposed project would not impact the ability to use a known mineral resource. No impacts would occur mitigation is not required.

Cumulative Impacts

The proposed project would not, in conjunction with any other past present or reasonably foreseeable project make any contribution to the loss of a mineral resource. Thus, no cumulative impacts to mineral resources would occur and mitigation is not required.

4.13 Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. For example, the equivalent continuous sound level (L_{eq}) is the average acoustic energy content of noise for a stated period of time; thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.

The Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

The primary existing noise source in the project area is vehicular traffic, including cars, trucks, buses, and motorcycles on roadways near or in the project vicinity. The level of vehicular noise generally varies with traffic volume, the number of trucks or buses, the speed of traffic, and the distance from the roadway.

The proposed project will comply with Policy HS-8.8 of the City of Lincoln 2050 General Plan which requires the City to provide guidelines to developers for reducing potential construction noise impacts on surrounding land uses. The proposed project will also comply with Policy HS-8.15 which establishes restrictions regarding the hours and days of construction activities throughout the City.

Construction activities would take place between 7:00 a.m. and 7:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. Saturday and Sunday, which would be consistent with City of Lincoln Noise Ordinance provisions, furthermore, all construction equipment would be fitted with factory installed muffling devices and all construction equipment would be maintained in good working order. While the City establishes limits to the hours during which construction activity may take place, it does not specify noise level limits for construction noise levels. Thus, this study uses the FTA’s threshold of 80 dBA (8-hour L_{eq}) for residential use.

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?

Less Than Significant Impact.

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g. land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, and material handlers can reach high levels. Typical noise levels associated with individual construction equipment are listed in *Table 4.13-1, Typical Construction Noise Levels*.

It should be noted that the values shown in *Table 4.13-1* are for the equipment when operating at full power 50 feet from the sensitive receptor, without any intervening structures or topography that may reduce noise levels. Construction noise was calculated accounting for each piece of equipment’s usage factor, or the fraction of time that the equipment would be in use at full power over a specific period of time¹. Other primary sources of acoustical disturbance may include random incidents, which would last less than one minute (such as dropping of materials or the hydraulic movement of machinery lifts). It should also be noted that due to project site constraints and standard construction practices, only a limited amount of equipment can operate on the project site at a particular time. Construction noise was

¹ Federal Highway Association, Roadway Construction Noise Model, User Guide 2005.

predicted at the nearest noise-sensitive receptors utilizing the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM). RCNM is a computer program used to assess construction noise impacts and allows for user-defined construction equipment and user-defined noise limit criteria.

Table 4.13-1: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA L_{max}) at 50 feet from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Jack Hammer	88
Loader	80
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Shovel	82
Truck	84
1. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20\log(d_1/d_2)$	
Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , September 2018.	

Noise levels were calculated for each construction phase and are based on the equipment used, distance to the nearest property/receptor, and acoustical use factor for equipment. The nearest sensitive receptors to the project site are the single-family residences located adjacent to the east and west of the proposed roundabout at Ferrari Ranch Road and Ingram Parkway and adjacent to the south of the proposed roundabout at Ferrari Ranch Road and Sun City Boulevard. However, it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the sensitive receptors. Construction equipment would operate throughout the project site and the associated noise levels would not occur at a fixed location for extended periods of time. Although sensitive uses may be exposed to elevated noise levels during project construction, these noise levels would be acoustically dispersed throughout the project site and not concentrated in one area near surrounding sensitive uses. Therefore, per the methodology described in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018), distances are measured from the nearby single-family residences property line to the center of construction activity.²

² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018

Table 4.13-2, *Project Construction Noise Level*, shows the project's exterior construction noise levels would range from approximately 74.9 dBA L_{eq} and 79.9 dBA L_{eq} at the nearest residential. Thus, project construction would not exceed the FTA's construction noise standards of 80 dBA for residential uses.

Table 4.13-2: Project Construction Noise Level

Construction Phase	Receptor Location			Modeled Noise Level, dBA $L_{eq}(8\text{-hour})$ ^{2, 3}	Noise Standard, dBA L_{eq} ³	Exceeds Noise Standard?
	Land Use	Location	Distance (feet) ¹			
Site Preparation	Residential	Ingram Parkway	138	74.9	80	No
	Residential	Sun City Boulevard	127	75.7	80	No
Grading	Residential	Ingram Parkway	138	78.9	80	No
	Residential	Sun City Boulevard	127	79.7	80	No
Paving	Residential	Ingram Parkway	138	79.2	80	No
	Residential	Sun City Boulevard	127	79.9	80	No
Infrastructure Improvement	Residential	Ingram Parkway	138	78.9	80	No
	Residential	Sun City Boulevard	127	79.6	80	No
1. Distance is from the nearest receptor property line to center of construction activity. 2. Modeled noise levels conservatively assume the simultaneous operation of all pieces of equipment. 3. There is solid barrier surrounding the receptors, which conservatively reduces the noise source by 5 dBA. 4. FTA Transit Noise and Vibration Impact Assessment Manual (September 2018) establishes construction noise thresholds of 80 dBA for residential use.						
Source: Federal Highway Administration, Roadway Construction Noise Model, 2006. Refer to Appendix E for noise modeling results.						

The proposed project construction would result in approximately 15 months of construction activities, including site preparation, grading, infrastructure improvement, and paving. The project would not include pile-driving. Based on the noise levels discussed above, the project would not result in a substantial temporary increase in ambient noise levels in the vicinity of the project and impacts related to construction noise would be less than significant. No mitigation is required.

Operational Noise

The project consists of the construction of two roundabouts on Ferrari Ranch Road at Ingram Parkway and at Sun City Boulevard to improve intersection operations and safety. Project operations would improve intersection operations and reduce congestion, which would not introduce new operational noise sources and noise levels would be consistent with those under existing conditions. The project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project. Impacts would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Project operations would be consistent with existing conditions. As such, operations would not generate any new groundborne vibration or noise. Increases in groundborne vibration levels from the project would be associated with short-term construction activities.

The FTA has published standard vibration velocities for construction equipment operations in the FTA Transit Noise and Vibration Manual (2018). The types of construction vibration impacts include human annoyance and building damage. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on soil composition and underground geological layer between vibration source and receiver. The FTA guidelines show that a vibration level of up to 0.30 inches-per-second (in/sec) peak particle velocity (PPV) is considered safe and would not result in any vibration damage.³ According to the California Department of Transportation (Caltrans), a vibration velocity of 0.20 in/sec PPV is when vibrations become annoying to people in buildings, and 0.40 in/sec PPV is when vibrations are considered unpleasant by people subjected to continuous vibrations.⁴

Table 4.13-3, Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet for typical construction equipment. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in *Table 4.13-3*, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.076 in/sec PPV at 25 feet from the source of activity. The nearest vibration-sensitive receptors are the single-family residential structures located approximately 50 feet to the east of the proposed roundabout at Sun City Boulevard and 65 feet to the east and west of residential structures at Ingram Parkway from the project site boundary.

Table 4.13-3: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 50 Feet (in/sec)	Peak Particle Velocity at 65 Feet (in/sec) ¹
Loaded Trucks	0.076	0.027	0.018
Small Bulldozer	0.003	0.012	0.001
Jackhammer	0.035	0.012	0.008
Notes:			
1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , 2018; D = the distance from the equipment to the receiver.			
Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , 2018.			

As shown in *Table 4.13-3*, construction equipment vibration velocities would not exceed the FTA's 0.30 in/sec PPV vibration damage threshold or Caltrans' 0.40 in/sec PPV for human annoyance threshold at the nearest sensitive receptors located approximately 50 and 65 feet from the construction area. In general, other construction activities would occur throughout the project site and would not be concentrated near vibration-sensitive uses. Therefore, vibration impacts would be less than significant.

³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018

⁴ California Department of Transportation, *Transportation Related Earthborne Vibrations Technical Advisory*, Vibration, January 23, 2004.

- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The nearest airports to the project site include the Lincoln Regional Airport, located approximately 3.37 miles to the northwest. The project site is not located within the Airport Influence Area and is not located within 65 dB CNEL noise contour for the Placer County Airport.⁵ Therefore, the project would not be exposed to aircraft overflight noise that exceeds noise exposure thresholds. There are no private airstrips within the vicinity of the project site. No impact would occur.

Cumulative Impacts

The project's construction activities would not result in a substantial temporary increase in ambient noise levels. The Placer County and the City of Lincoln do not have noise level standards; however City of Lincoln Noise Ordinance and Construction Working Hours per the City's Public Facilities Improvement Standards limits Normal working hours from 7:00 AM to 7:00 PM and a normal work day Monday through Friday. Work between 8:00 AM to 5:00 PM on Saturday, Sunday, and Holidays requires a written request to the City Engineer 72-hours, 3 full regular working days prior to the desired construction. There would be periodic, temporary, noise impacts that would cease upon completion of construction activities. The project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the project's construction-related noise impacts would be less than significant following compliance with local regulations and mitigation measures outlined in this study. Construction activities at other planned and approved projects would be required to take place during daytime hours, and the City and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Therefore, project construction would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

⁵ Placer County Transportation Agency, *Placer County Airport Land Use Compatibility Plans*, September 22, 2021.

4.14 Population and Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

- 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)?*

Less Than Significant Impact. The project site is a transportation corridor, and the proposed project would make improvements within the existing roadways and areas that have previously graded or developed. The proposed project does not include any residential uses that would directly generate new residents or increase the City's population. The proposed project also would not result in an intensification of land uses, increase roadways capacity, add any new habitable structures, or increase the capacity of infrastructure that could induce development resulting in population growth elsewhere. Thus, the proposed project would not directly or indirectly induce population growth. Impacts would be less than significant.

- b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed project would provide traffic, pedestrian and bicycle improvements within an existing roadway corridor. There are no existing residential structures located on the project site and none would be acquired requiring replacement housing elsewhere. Therefore, implementation of the proposed project would not displace housing or people. No impacts would occur.

Cumulative Impacts

The proposed project would not result in direct, or indirect permanent or temporary impacts related to population or housing. Therefore, the proposed project would not result in cumulative incremental effects

to population and housing that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. As a result, no cumulative impacts related to population and housing would occur.

4.15 Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
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:				
i) Fire protection?			X	
ii) Police protection?			X	
iii) Schools?			X	
iv) Parks?			X	
v) Other public facilities?			X	

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:*

i. *Fire protection?*

Less Than Significant Impact. The project site is within the service area of the Lincoln Fire Department. The nearest fire station to the project site is Lincoln Fire Station No. 33 approximately 0.17 miles west of the project site. The project, where applicable and required, would include access for emergency services including fire. In addition, the proposed project does not include additional residential units, commercial, industrial, or any other uses that would increase demand on fire protective services. It should be noted that the project does include roadway safety improvements designed to minimize both vehicle to vehicle and vehicle pedestrian conflicts which, depending on severity, can require an emergency response. Accordingly, the proposed project would not require the expansion or development

of a new fire station or any other fire infrastructure, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

ii. Police protection?

Less Than Significant Impact. Police protection is provided to the project site by the Lincoln Police Department and the main police station is located at 770 7th Street approximately 0.75 miles northwest of the project site. The project would maintain access for emergency services including police services. In addition, the proposed project does not include additional residential units, commercial, industrial, or any other uses that would increase demand on police protective services. It should be noted that the project does include roadway safety improvements designed to minimize both vehicle to vehicle and vehicle pedestrian conflicts which, depending on severity, can require an emergency response.

Accordingly, the proposed project would not require the expansion or development of a new police station, or any other infrastructure needed to maintain service levels, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

iii. Schools?

Less Than Significant Impact. The project site is located in the service area of the Western Placer Unified School District. There are no schools located in the immediate vicinity of the project site. The closest school is Guiding Stars Academy located approximately 0.29 miles northwest of the project site. The project does not include any residential units that would directly increase student population and does not include other uses that would lead to growth and induce population requiring the construction of new school facilities.

Thus, the proposed project would not require the expansion or development of a school or any other education related infrastructure, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

iv. Parks?

Less Than Significant Impact. The proposed project would not include additional residential units, or any other uses that would induce an increased population to the City. The proposed project includes the improvements and additions of roundabouts to the intersections of Ferrari Ranch Road and Ingram Parkway and Ferrari Ranch Road and Sun City Boulevard. These improvements and additions would not result in intensification of land use, or the addition of structures or uses that could increase demand for or use of parks within the City or region. Accordingly, the proposed project would not require the expansion or development of any park, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

v. Other public facilities?

Less Than Significant Impact. Other public facilities in the area such as health care, production, commercial, retail, residential, etc. would not be adversely impacted. The proposed project would not include additional residential units or other uses that would increase the population resulting in an increased demand for public services. Accordingly, the proposed project would not require the expansion or development of any of these resources, the construction of which could result in impacts to the environment. Thus, impacts would be less than significant, and no mitigation is required.

Cumulative Impacts

The proposed project does not include additional residential units or other uses that would increase the population or demand for public services. The proposed project includes roadway and circulation improvements that are intended to reduce vehicle to vehicle conflicts and vehicle pedestrian conflicts. These improvements would not result in intensification of land use, or the addition of structures or uses that would result in changes to land use patterns or enable the intensification of land uses. The proposed project also would not combine with past, present, and reasonably foreseeable project such that a cumulative impact would result. Lastly, the proposed project would not result in substantial incremental effects to public services or facilities that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable projects. The project alone would not result in cumulatively considerable impacts to public services or facilities.

4.16 Recreation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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?			X	
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?			X	

- b) *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?*

Less Than Significant Impact. The proposed project does not include any residential units or any other type of use that would increase the population, or park and recreation facility demand in the area, or include any other type of use that would directly increase the use of park and recreation facilities. The proposed project would not result in an intensification of land uses, or the addition of structures or uses that would result in a substantial increase on the demand for existing recreational resources such that substantial physical deterioration would occur or be accelerated. Thus, impacts of the proposed project would be less than significant in this regard, and mitigation is not required.

- c) *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?*

Less Than Significant Impact. The proposed project consists of roadway improvements that includes two roundabouts, bike lanes, and pedestrian improvements that could be used as recreational resources. Impacts from these improvements are considered as part of the project and have been analyzed within this document. Thus, the proposed project would not have a significant adverse physical effect on the environment in this regard. Impacts would be less than significant, and no mitigation is required.

Cumulative Impacts

Development of the proposed project would not create a significant cumulative increase of recreational facilities. In addition, the proposed project would not combine with other past, present, or reasonably foreseeable projects and result in significant cumulative impacts. The project would not impact any existing recreation facilities and would not create a substantial population increase to impact existing recreational facilities. Therefore, no cumulative impacts on recreational facilities would occur.

4.17 Transportation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The proposed project would occur within the existing roadways and areas that have previously graded or developed from the intersection of McBean Park Drive and Ferrari Ranch Road to west of the Ingram Parkway and Ferrari Ranch Road intersection. The project area is designated in the Lincoln General Plan as a roadway. The proposed project would be consistent with ongoing improvement standards of this plan and other goals and policies set forth by the City through enhancement of vehicle, pedestrian, and bicycle safety and access, and maintaining or improving levels of service (LOS). Installation of the roundabouts, crosswalks, and other roadway improvements would not conflict with any plan adopted by the community. As discussed in Section 4.11 Land Use and Planning, above, the proposed project improvements are aligned with and support the City's goals and policies proposed in the General Plan.

The proposed project includes design elements and roadway improvements that are identified in multiple City and regional planning documents, such as the City of Lincoln Design Criteria and Procedures Manual, the City of Lincoln 2020 Public Facilities Improvement Standards, the City of Lincoln 2018 Bicycle Transportation Plan Update, City of Lincoln 2021 Pavement Management Program Update Report, and the 2050 General Plan. The City and regional planning documents emphasize goals associated with improved circulation, less traffic congestion, and safer access for bicyclists, pedestrians, and vehicles with the proposed roundabouts. Pedestrian facilities would be highly improved and compliant with ADA standards. Bike lanes would be maintained as Class II Bike Facilities. Therefore, the proposed project would not impede a plan, policy, or regulation adopted to address the circulation system, including transit,

roadway, bicycle and pedestrian facilities. Therefore, impacts would be less than significant, and no mitigation is required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. The proposed project includes improvements to the existing intersections at Ingram Parkway and Ferrari Ranch Road and at Sun City Boulevard and Ferrari Ranch Road. Improvements at Ingram Parkway and Ferrari Ranch Road would replace the all-way stop control with a multi-lane roundabout. Improvements at Sun City Boulevard would replace the existing all-way stop control with a single lane roundabout. The proposed project also includes improvements for pedestrian and bicycle travel with proposed bike lane buffers, pedestrian refuge islands, and improved crosswalks at Ingram Parkway and at Sun City Boulevard. There are no new land uses such as residential, commercial, or industrial proposed. The proposed project would not increase the vehicle miles travelled or induce additional vehicle travel. The proposed project does not include any new roadways or expand the capacity of the existing roadway. The proposed improvements would enhance safety of vehicular traffic at the all-way stop-controlled intersections and would improve accessibility for bicyclists and pedestrians.

The proposed project would not include transit improvements. The project corridor is not included in any Placer County Transit bus route, and the nearest stop is located at McBean Park Drive and A Street approximately 0.23 miles west of the northernmost portion of the project area. The project would connect to an existing multi-use trail and would improve connectivity within the site and to the surrounding areas. In addition to improving access to these recreational amenities, the project would enhance safety for pedestrians and bicyclists and would encourage non-vehicular travel. This too, would serve to reduce overall VMT. In sum, the proposed project has been designed to consider the transportation system as a whole including vehicles, transit, bicyclists, and pedestrians. Therefore, because the proposed project is not considered a trip generating use, and includes uses intended to reduce vehicle trips, and would improve efficiency and safety of the intersection, impacts in this regard would be less than significant.

It should be noted that the proposed project would have a short-term incremental increase on vehicle trips and VMT associated with construction of the project. To facilitate construction, workers would be required to drive to the project site on a daily basis. Due to the relatively small scale of the project, the fact it includes roadway improvements and does not include the building of structures, the workforce needed for the project would be relatively small. In addition, it is anticipated that many workers would be located within the City or surrounding region and the distance travelled to the worksite would be relatively short. These trips also would cease upon completion of the proposed project, and due to this and their temporary nature, the slight increase in VMT in this regard is less than significant.

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

Less Than Significant Impact. The proposed project is designed to improve traffic operations in addition to pedestrian and bicycle access and safety. The intersections at Ingram Parkway and Ferrari Ranch Road and at Sun City Boulevard and Ferrari Ranch Road are currently all-way stop controlled. Although crosswalks exist at these intersections, the existing crosswalks are worn out and visibility issues exist. In addition, Ferrari Ranch Road is curved at the roadway, and although views of the Ingram Parkway intersection are generally open for southbound traffic, northbound views of the intersection are obscured

by fencing and vegetation on the easterly side of the road. Furthermore, views at the Sun City Boulevard intersection for southbound traffic is obscured by vegetation on the easterly side of the road.

Implementation of the proposed project would consist of roadway improvements and added traffic calming elements, such as buffered bike lanes, pedestrian refuge islands, curb extensions, high visibility crosswalk markings, raised medians, and the proposed roundabouts. The proposed project would remove the stop signs and enable safer conduction of vehicles through the proposed roundabouts at slower speeds. The roundabouts have been designed to enhance safety and would include truck aprons to accommodate for the potential off-tracking larger commercial vehicles.

The project is proposed to alleviate current congestion, reduce intersection delays and queues, and better accommodate pedestrian and bicycle traffic, thereby minimizing delays along the project corridor roadway and reducing potential safety hazards. These improvements would be designed in accordance with all applicable roadway design standards set forth by the City and Caltrans, which have been established to ensure safe and efficient vehicular circulation on roadway facilities. As such, no sharp curves, dangerous intersections, or incompatible uses would be introduced by the proposed project. Therefore, impacts would be less than significant, and no mitigation is required.

d) Result in inadequate emergency access?

Less Than Significant Impact. The roadways planned for improvement under the proposed project are anticipated to remain open during construction. However, at times depending on the construction scheduling and other demands, there may be temporary lane closures during non-commute times or traffic may be limited to one-way travel. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles. Project plans would be reviewed by the appropriate City departments to ensure conformance with all applicable fire safety code and ordinance requirements for emergency access. Standard management practices such as communication with the department, having flagmen, minimizing closures, and having unobstructed alternate routes would maintain the efficiency of emergency access. Furthermore, the proposed project would install truck aprons at the proposed roundabouts that would allow emergency vehicles, such as fire trucks, to mount on the roundabout and would maintain emergency access. Therefore, impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

Cumulative transportation impacts are typically considered over a wide area, sometimes regionally, but typically smaller projects, such as the proposed project are considered at the City level. The proposed project consists of roadway improvements to improve traffic flow and improve safety for pedestrians and bicyclists. The proposed project itself was found not to have impacts associated with VMT and has elements that could serve to reduce VMT. Taken in sum with other past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to number of vehicle miles travelled. The proposed project is not considered a trip generating use, and it would not increase the roadway capacity inducing more vehicle trips, but instead would improve the efficiency of traffic conduction. For these reasons cumulative traffic impacts would be less than significant and mitigation is not required.

4.18 Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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				
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)?		X		
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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		X		

a) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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:*

- 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)?*

And,

- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less Than Significant with Mitigation Incorporated. An *Archaeological Resources Inventory Report* for project site was conducted by ECORP Consulting, Inc in August 2024. As previously mentioned, there were no historical resources found to be impacted by the proposed project, this is substantiated through a CHRIS records search, background research, review of historical topographic and aerial imagery, a Sacred Land File Search, and a pedestrian survey. However, the absence of substantial surface prehistoric or historic-period archeological remains within the project vicinity and the existing level of disturbance does not preclude the possibility of subsurface resources.

A request was made via email to the Native American Heritage Commission (NAHC) on June 17, 2024 to request a search of the Sacred Lands File for the presence of recorded sacred sites on the proposed project site. The NAHC responded on June 25, 2024, stating that no significant resources were identified in the APE as a result of a search of their files. The NAHC also provided a list of 22 tribal contacts representing six tribes with a traditional and cultural affiliation with the project area for notification pursuant to PRC Section 21080.3.1 (Assembly Bill [AB] 52).

In a letter dated January 7, 2025, the City contacted United Auburn Indian Community of the Auburn Rancheria via U.S. mail with certified receipt. The letter provided project information as the initiation of Section 106 consultation pursuant to the NHPA and as formal notification of a proposed project as required under CEQA, specifically PRC 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52). One request for consultation was received from the United Auburn Indian Community of the Auburn Rancheria. The request by Anna Starkey, Cultural Regulatory Manager, indicated the potential for presence of unrecorded resources within the project area or vicinity. The City is currently conducting consultation at the time of this publication.

Examples of significant archaeological discoveries that may meet the tribal cultural resource definition would include villages and cemeteries. Due to the possible presence of unknown tribal cultural resources within the project site, construction related impacts on tribal cultural resources would be potentially significant. Though the circumstances would present a low possibility, the following mitigation measure (MM) would reduce impacts in the unanticipated discovery of cultural resources during construction. With the implementation of **MM CUL-1**, **MM CUL-2**, and **MM CUL-3** above in Section 4.5 Cultural Resources, impacts would be less than significant.

Cumulative Impacts

The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the local area would be required to comply with all applicable State, federal, and County and local regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required mitigation. Similar to the proposed project, these projects also would be required to implement and conform to mitigation measures, which would be likely to reduce impacts to less than significant. Although in the process of roadway improvements, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. In addition, implementation of Mitigation Measures **MM CUL-1**, **MM CUL-2**, and **MM CUL-3** would reduce project-specific impacts to a less than significant level. Therefore, the project's contribution to cumulative impacts would be less than significant.

4.19 Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

- 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?*

Less Than Significant Impact. The proposed project includes transportation improvements that would alter the existing roadway configuration and install roundabouts, pedestrian, and bicycle improvements. The proposed project does not include any uses which would intensify land use or result in the generate increased demand for water, wastewater, storm drainage, electrical power, natural gas, or telecommunications facilities. The proposed project includes replacement of existing hardscape, street and safety lighting in addition to landscaping within the medians, on roadsides, and within the proposed roundabouts. The landscaping would require only a nominal amount of additional electric power and water, and all lights would be energy efficient LEDs or similar, and plantings would be use a drought tolerant planting palette.

Implementation of the proposed project would have nominal water demand during the temporary, short-term construction phase such as watering of disturbed areas to minimize fugitive dust. Because of the nature of the proposed improvements the project would not increase the demand for water during operations. The proposed project would include excavation and could expose existing dry utility lines (electrical and communications) during work efforts. During excavation and reconstruction an adjustment to the location of existing underground utilities, including electrical, telephone, and cable, could be needed but would occur within the project footprint.

Thus, the proposed project would be served by the existing utilities and no new or expanded water, wastewater, stormwater, electric power, natural gas, or telecommunications facilities or line outside the project footprint (areas already proposed for disturbance) would be required. As such, all improvements and associated impacts are considered within the individual impact's discussions in this document and mitigation has been proposed as needed. Impacts would be less than significant, and no mitigation is required.

- b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less Than Significant Impact. The proposed project will not result in intensification of land use, or the addition of structures or uses (i.e. residential, commercial, industrial, etc.) that are typically associated with increased water demand. The project consists of roadway and safety improvements for pedestrians and cyclists and would not increase population density or substantially increase water demand with or without future planned development within the City.

The proposed project aligns with the water supply provisions outlined in the City of Lincoln's General Plan (2008) and adheres to the Urban Water Management Plan's guidelines for water supply and demand during normal and dry years (City of Lincoln, 2021). During construction activities such as soil watering for dust control, vehicle washing, and material mixing, water usage will be limited and temporary in nature. These activities will not require substantial volumes of water.

Additionally, the project will necessitate a small amount of water for the proposed landscaped areas. However, any increase in water demand will be minimal compared to the existing landscaping within the corridor. Furthermore, the proposed vegetation would be drought tolerant and would require minimal watering. Further, as stated in the Urban Water Management Plan, sufficient water supplies are anticipated to be available even during normal and dry years (City of Lincoln, 2021). Thus, impacts would be less than significant in this regard and mitigation is not required.

- 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?*

Less Than Significant Impact. As previously stated, the proposed project would not result in intensification of land use and consists of roadway safety improvements for vehicles, pedestrians, and cyclists. No additional demand for wastewater treatment, or other water treatment facilities would be needed or are proposed as part of the project. Because the proposed project would not generate any new demand resulting in the need for off-site wastewater treatment improvements, impacts would be less than significant, and mitigation is not required.

- 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?*

Less Than Significant Impact. As previously stated, the proposed project will not result in an intensification of land use or new uses that would increase the demand for solid waste disposal services. The proposed project would result in removal of some existing hardscape and underlying earthen materials. These materials would be recycled and reused (i.e. crushed for road base, used in concrete, etc.), to the extent feasible. This would minimize the need for off-site disposal and reduction of landfill capacity. The proposed project also would not result in any new uses that would result in a substantial generation of waste that would be typical of residential, commercial, or industrial uses that would require disposal at a landfill. Construction of the proposed project, however, would result the generation of minor volumes of solid waste. Moreover, the project does not include any structures that require building materials (i.e. wood, siding, roofing, etc.) and waste generation would be minimal. Therefore, impacts would be less than significant, and no mitigation is required.

- e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less Than Significant Impact. As noted above, the proposed project would generate construction waste during the construction phase but would not generate a substantial volume of waste that would require off-site disposal as part of project operations. The proposed project would be required to comply with the City's General Plan and would be consistent with waste reduction goals with recycle or reuse of construction materials to the extent feasible. The Proposed Project would not compromise the City's compliance with federal, State and local statutes and regulations related to management and reduction of solid waste. Impacts would be less than significant, and no mitigation is required.

Thus, the proposed project would not interfere with regulations related to solid waste or generate waste in excess of the capacity of local infrastructure. The proposed project would have a less than significant impact in this regard.

Cumulative Impacts

Utilities are generally provided or delivered on a local level but often originate from sources outside local areas as most areas are served through the regional distribution system. As discussed above, the proposed project does not include any uses that would require long term utilities services within the exception of a minimal increase in electricity demand for new traffic signals and lights. Taken in conjunction with past, present, and reasonably foreseeable projects the overall increased demand for utilities would be incrementally small and the project would not make a substantial cumulative contribution. Therefore, implementation of the project would not result in a cumulatively considerable contribution to impacts on water supply and wastewater, stormwater, or solid waste generation.

4.20 Wildfire

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	
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?			X	
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?			X	

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. During construction, emergency access through the project area could be affected. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles. The contractor would be required to comply with applicable City codes and regulations to ensure emergency access to the project site. Standard management practices would be implemented during construction to maintain the efficiency of fire protection services to ensure adequate fire protection staffing, performance levels, and facilities, and redirect emergency vehicle routes. Therefore, impacts to fire protection services would be less than significant.

- 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?*

Less Than Significant Impact. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project would not result in development of structures or housing which would subject residents, visitors, or workers to long-term wildfire danger. The project is in an urbanized area and is not in a VHFHSZ. Therefore, impacts from project implementation would be considered less than significant in this regard.

- 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?*

Less Than Significant Impact. The proposed project includes standard infrastructure improvements associated with roadway and transportation safety improvements. The proposed project is not located in a very high or high wildfire hazard severity zone and is in an urbanized area. These areas are not prone to wildfire. The proposed project does not include construction of roadways, fuel breaks, or water sources that could exacerbate wildfire hazards. Therefore, impacts would be less than significant, and no mitigation is required.

- 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?*

Less Than Significant Impact. The proposed project site is not in a VHFHSZ, is in an urbanized area that is relatively flat and is not prone to wildfire. Thus, the proposed project would not expose people to downstream flooding or landslides as a result of runoff. Impacts would be less than significant.

Cumulative Impacts

The proposed project area is not subject to natural wildfire areas. Consequently, implementation of the proposed project would not create a significant cumulative impact that would exacerbate wildfires. Impacts would be less than significant.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Does the project:				
a) 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?		X		
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)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

- a) *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 Impact with Mitigation Incorporated. The analysis in this Initial Study includes an evaluation of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas

emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, utilities and service systems, and wildfire. The analysis covers a broad spectrum of topics relative to the potential for the proposed Project to have environmental impacts. This includes the potential for the proposed project 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, 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.

The proposed project would occur within an existing roadway that do not contain resources that would be commonly used by sensitive species or contain sensitive biological resources. Although the proposed project is adjacent to open space that may have the potential to be used by sensitive species or contain sensitive biological resources, the project would avoid these areas. In addition, due to past development efforts the potential for cultural resources or tribal cultural resources to be present or located during construction activities is considered to be low. Thus, for the reasons presented throughout this document, the proposed project would not 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, 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.

Nonetheless, the proposed project would be approved with adoption of mitigation to reduce potential impacts to nesting birds and Crotch's bumble bee and includes mitigation for inadvertent discovery of cultural resources. Thus, it was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures.

- 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)?*

Less Than Significant Impact with Mitigation Incorporated. The analysis in this Initial Study includes an evaluation of the project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, utilities and service systems, and wildfire. The analysis covers a broad spectrum of topics relative to the potential for the proposed project to have environmental impacts. It was found that the proposed project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the project's contribution to cumulative impacts.

The proposed project would not increase the population or the use of public services and systems and would not conflict with any applicable plans for the area. The proposed project would not

increase the capacity of the roadway system or other utilities and would not extend services to any unserved area. Thus, the project would not encourage, induce, or allow for future development near the project area. Furthermore, any future projects within the City in the surrounding areas would be subject to environmental review under CEQA and the project would not make a substantial contribution to impacts of other projects. Accordingly, there are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed project after the implementation of all mitigation measures. With the implementation of all mitigation measures proposed in this Initial Study, the proposed project would have a less than significant impact relative to this topic.

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

Less Than Significant Impact with Mitigation Incorporated. Potential adverse project effects on human beings were discussed in Section, *Air Quality*; Section, *Geology and Soils (seismic hazards)*; Section, *Hazards and Hazardous Materials*; Section, *Hydrology and Water Quality (flooding)*; Section, *Transportation (traffic hazards)*; and Section, *Wildfire*. No potential adverse effects on human beings were identified. Potential adverse effects that were identified would be reduced to levels considered less than significant through compliance with applicable laws, regulations, and City ordinances and standards, along with mitigation measures where necessary.

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Appendix A

Air Quality and GHG Data

Lincoln Ferrari Ranch Roundabout

CalEEMod Assumptions

Land Use

Land Use	Size	Metric
Parking – Other asphalt use	427	KSF
KSF = thousand square feet; DU = dwelling unit		

Construction

Schedule

Phase Name	Start Date	End Date	Workdays
Site Preparation	6/1/2026	8/31/2026	66
Grading	7/1/2026	9/30/2026	66
Infrastructure Improvement	9/1/2026	12/31/2026	88
Paving	3/1/2027	8/31/2027	132

Equipment

Construction Phase	Equipment	Number per Day	Hours Per Day
Site Preparation	Air Compressor	2	8
	Backhoe/Front End Loader	2	8
	Hydraulic Break Ram	1	8
	Paver	1	8
	Truck (Dump/Flat Bed)	4	8
Grading	Bobcat/skid steer loader	1	8
	Concrete Saw	2	8
	Truck (Dump/Flat Bed)	4	4
Infrastructure Improvement	Backhoe/Front End Loader	2	8
	Bobcat/skid steer loader	1	8
	Concrete Mixer Truck	5	8
	Excavator	2	8
	Truck (Dump/Flat Bed)	4	8
Paving	Bobcat/skid steer loader	1	8
	Truck (Dump/Flat Bed)	4	8

Grading/Earthwork

Phase	Import (CY)	Export (CY)	Haul Distance (mi)
Site Preparation	--	--	
Grading	--	13,000 CY	
CY = cubic yards; mi = miles			

Worker, Vendor, and Haul Trips

Trip Type	# One-Way Trips/Day	Trip Length (miles)
Site Preparation		

Lincoln Ferrari Ranch Roundabout

CalEEMod Assumptions

Worker	20	14.30
Vendor	8	8.80
Hauling	0	20.00
On-Site Truck	0	0
Grading		
Worker	20	14.3
Vendor	8	8.80
Hauling	25	20.00
On-Site Truck	0	0
Infrastructure Improvement		
Worker	20	14.3
Vendor	18	8.80
Hauling	0	20.00
On-Site Truck	0	0
Paving		
Worker	20	14.3
Vendor	8	8.80
Hauling	0	20.00
On-Site Truck	0	0

** Area of widening = 190,000 SF = 4.362 acres

Demolition

Phase	Amount (CY)
Demolition	N/A
CY = cubic yards	

Lincoln Ferrari Ranch Road Roundabout Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Lincoln Ferrari Ranch Road Roundabout
Construction Start Date	6/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	7.80
Location	38.883142139900116, -121.28625577963678
County	Placer-Sacramento
City	Lincoln
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	433
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Other Asphalt Surfaces	427	1000sqft	9.80	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.41	3.68	27.4	30.9	0.11	0.86	0.70	1.56	0.79	0.18	0.98	—	11,148	11,148	0.39	0.37	4.66	11,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.51	2.95	19.4	23.6	0.08	0.66	0.14	0.80	0.61	0.03	0.64	—	8,258	8,258	0.33	0.09	0.02	8,293
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.21	1.01	7.55	8.82	0.03	0.25	0.15	0.40	0.23	0.04	0.27	—	2,799	2,799	0.10	0.08	0.41	2,825
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22	0.18	1.38	1.61	< 0.005	0.04	0.03	0.07	0.04	0.01	0.05	—	463	463	0.02	0.01	0.07	468

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.41	3.68	27.4	30.9	0.11	0.86	0.70	1.56	0.79	0.18	0.98	—	11,148	11,148	0.39	0.37	4.66	11,274

2027	0.49	0.42	2.70	2.98	0.01	0.09	0.10	0.19	0.08	0.02	0.11	—	598	598	0.02	< 0.005	0.32	600
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.51	2.95	19.4	23.6	0.08	0.66	0.14	0.80	0.61	0.03	0.64	—	8,258	8,258	0.33	0.09	0.02	8,293
2027	0.49	0.42	2.71	2.85	0.01	0.09	0.10	0.19	0.08	0.02	0.11	—	585	585	0.02	0.01	0.01	588
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.21	1.01	7.55	8.82	0.03	0.25	0.15	0.40	0.23	0.04	0.27	—	2,799	2,799	0.10	0.08	0.41	2,825
2027	0.18	0.15	0.98	1.03	< 0.005	0.03	0.04	0.07	0.03	0.01	0.04	—	213	213	0.01	< 0.005	0.05	214
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.22	0.18	1.38	1.61	< 0.005	0.04	0.03	0.07	0.04	0.01	0.05	—	463	463	0.02	0.01	0.07	468
2027	0.03	0.03	0.18	0.19	< 0.005	0.01	0.01	0.01	0.01	< 0.005	0.01	—	35.2	35.2	< 0.005	< 0.005	0.01	35.4

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.07	0.07	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.07	0.07	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.01	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09	0.91	7.74	9.91	0.02	0.28	—	0.28	0.26	—	0.26	—	1,497	1,497	0.06	0.01	—	1,503
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.20	0.16	1.40	1.79	< 0.005	0.05	—	0.05	0.05	—	0.05	—	271	271	0.01	< 0.005	—	272
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.26	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	44.8	44.8	< 0.005	< 0.005	—	45.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	109	109	< 0.005	< 0.005	0.36	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	< 0.005	3.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	5.70	6.18	0.01	0.17	—	0.17	0.15	—	0.15	—	978	978	0.04	0.01	—	982
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.03	1.12	< 0.005	0.03	—	0.03	0.03	—	0.03	—	177	177	0.01	< 0.005	—	177
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.03	0.02	0.19	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.3	29.3	< 0.005	< 0.005	—	29.4
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	109	109	< 0.005	< 0.005	0.36	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	0.04	2.30	0.44	0.02	0.03	0.46	0.49	0.03	0.12	0.16	—	1,790	1,790	0.02	0.28	3.60	1,877
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.44	0.08	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	324	324	< 0.005	0.05	0.28	339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	< 0.005	3.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.08	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.05	56.1

3.5. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.30	2.68	2.51	0.01	0.09	—	0.09	0.08	—	0.08	—	490	490	0.02	< 0.005	—	492
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.30	2.68	2.51	0.01	0.09	—	0.09	0.08	—	0.08	—	490	490	0.02	< 0.005	—	492
Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.97	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	177	177	0.01	< 0.005	—	178
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.18	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.4	29.4	< 0.005	< 0.005	—	29.5
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	107	107	< 0.005	< 0.005	0.32	108
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.01	96.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.3	35.3	< 0.005	< 0.005	0.05	35.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	5.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Infrastructure Improvement (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.47	2.91	19.2	23.2	0.07	0.66	—	0.66	0.61	—	0.61	—	8,022	8,022	0.33	0.07	—	8,049
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.47	2.91	19.2	23.2	0.07	0.66	—	0.66	0.61	—	0.61	—	8,022	8,022	0.33	0.07	—	8,049
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.70	4.62	5.60	0.02	0.16	—	0.16	0.15	—	0.15	—	1,934	1,934	0.08	0.02	—	1,941
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.84	1.02	< 0.005	0.03	—	0.03	0.03	—	0.03	—	320	320	0.01	< 0.005	—	321
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.49	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	109	109	< 0.005	< 0.005	0.36	110
Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	140	140	< 0.005	0.02	0.34	146
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.36	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	96.6	96.6	< 0.005	< 0.005	0.01	97.8
Vendor	0.01	< 0.005	0.19	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	140	140	< 0.005	0.02	0.01	146
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.9	23.9	< 0.005	< 0.005	0.04	24.2
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.7	33.7	< 0.005	0.01	0.04	35.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.96	3.96	< 0.005	< 0.005	0.01	4.01
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.58	5.58	< 0.005	< 0.005	0.01	5.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.07	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.07	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2026	8/31/2026	5.00	66.0	—
Grading	Grading	7/1/2026	9/30/2026	5.00	66.0	—
Paving	Paving	3/1/2027	8/31/2027	5.00	132	—
Infrastructure Improvement	Trenching	9/1/2026	12/31/2026	5.00	88.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Site Preparation	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48
Site Preparation	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Site Preparation	Dumpers/Tenders	Diesel	Average	4.00	8.00	16.0	0.38
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Average	2.00	8.00	33.0	0.73
Grading	Dumpers/Tenders	Diesel	Average	4.00	8.00	16.0	0.38
Paving	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Paving	Dumpers/Tenders	Diesel	Average	4.00	8.00	16.0	0.38
Infrastructure Improvement	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Infrastructure Improvement	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Infrastructure Improvement	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Infrastructure Improvement	Dumpers/Tenders	Diesel	Average	4.00	8.00	16.0	0.38
Infrastructure Improvement	Off-Highway Trucks	Diesel	Average	5.00	8.00	376	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	10.0	14.3	LDA,LDT1,LDT2

Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	24.6	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Infrastructure Improvement	—	—	—	—
Infrastructure Improvement	Worker	10.0	14.3	LDA,LDT1,LDT2
Infrastructure Improvement	Vendor	5.00	8.80	HHDT,MHDT
Infrastructure Improvement	Hauling	0.00	20.0	HHDT
Infrastructure Improvement	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	0.00	0.00	—
Grading	—	13,000	0.00	0.00	—
Paving	0.00	0.00	0.00	0.00	4.36

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Asphalt Surfaces	4.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	25,620

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	—	annual days of extreme heat
Extreme Precipitation	—	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	—	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	66.8
AQ-PM	12.0
AQ-DPM	7.84
Drinking Water	19.3
Lead Risk Housing	0.00
Pesticides	0.00
Toxic Releases	17.0
Traffic	26.1
Effect Indicators	—
CleanUp Sites	4.12
Groundwater	31.7

Haz Waste Facilities/Generators	57.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	28.2
Cardio-vascular	63.3
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	1.46
Housing	46.0
Linguistic	22.2
Poverty	31.5
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	84.71705377
Employed	0.128320287
Median HI	58.96317208
Education	—
Bachelor's or higher	69.62658796
High school enrollment	100
Preschool enrollment	76.85102015
Transportation	—
Auto Access	86.34672142
Active commuting	60.22071089

Social	—
2-parent households	69.39561145
Voting	99.98716797
Neighborhood	—
Alcohol availability	92.24945464
Park access	8.263826511
Retail density	17.22058257
Supermarket access	22.0967535
Tree canopy	59.98973438
Housing	—
Homeownership	95.86808674
Housing habitability	75.87578596
Low-inc homeowner severe housing cost burden	27.01142051
Low-inc renter severe housing cost burden	36.68677018
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	90.86359553
Arthritis	0.0
Asthma ER Admissions	63.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	50.6
Cognitively Disabled	38.1
Physically Disabled	0.6

Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	99.4
Elderly	0.1
English Speaking	72.4
Foreign-born	15.4
Outdoor Workers	64.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.2
Traffic Density	34.9
Traffic Access	23.0
Other Indices	—
Hardship	66.1
Other Decision Support	—
2016 Voting	99.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	9.00
Healthy Places Index Score for Project Location (b)	47.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Trips and VMT	Updated per construction questionnaire. Added dump trucks and concrete trucks as vendor trip (x2 for roundtrip)
Construction: Construction Phases	Per construction questionnaire
Construction: Off-Road Equipment	Per construction questionnaire
Construction: Paving	Per construction questionnaire

Appendix B

Biological Resources Assessment

Biological Resources Assessment for the Ferrari Ranch Road Improvement Project

Placer County, California

Prepared For:

Kimley-Horn and Associates, Inc.

Prepared By:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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DRAFT

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	degrees Fahrenheit
BCC	USFWS Bird of Conservation Concern
BIOS	Biogeographic Information and Observation System
BO	Biological Opinion
BRA	Biological Resource Assessment
BSA	Biological Study Area
CARP	County Aquatic Resources Program
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBH	diameter at breast height
DPS	Distinct Population Segment
ECORP	ECORP Consulting, Inc.
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
HCP	Habitat Conservation Plan
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
NCCP	Natural Community Conservation Plan
NCCP	Natural Community Conservation Plan
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PCA	Placer Conservation Authority
PCCP	Placer County Conservation Program
Project	Ferrari Ranch Road Improvements Project
RWQCB	Regional Water Quality Control Board
SSC	California Species of Special Concern
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WL	State Watch List

1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) has conducted a Biological Resources Assessment (BRA) at the request of Kimley-Horn and Associates, Inc., for the proposed Ferrari Ranch Road Improvements Project (Project) located in the City of Lincoln, Placer County, California. The results of this assessment will support environmental review of the Project in accordance with the California Environmental Quality Act (CEQA), provide the basis for identifying appropriate measures to lessen or avoid significant impacts to biological resources, and support participation in the Placer County Conservation Program (PCCP).

1.1 Project Location and Description

The Project is located within the City of Lincoln's public Right-of-Way on Ferrari Ranch Road south of McBean Park Drive, which includes Ingram Parkway and Sun City Boulevard (Figure 1). The Proposed Project entails the construction of two roundabout controls at the Ferrari Ranch Road intersections with Ingram Parkway and Sun City Boulevard.

1.2 Biological Study Area

The Biological Study Area (BSA) includes all areas where Project-related activities may result in impacts to sensitive biological resources. The approximately 15.75-acre BSA corresponds to a portion of Sections 14, 15, and 22, Township 12 North, and Range 6 East (Mount Diablo Base and Meridian) of the Lincoln, California 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1992; Figure 1). The approximate center of the BSA is located at 38.884969° latitude and -121.284984° longitude within the Upper Coon-Upper Auburn watershed (Hydrological Unit Code 18020161; USGS 2024).

1.3 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitats, and other sensitive or protected resources such as migratory birds, sensitive natural communities, riparian habitat, oak woodlands, and potential Waters of the U.S. or state, including wetlands, within the BSA. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of available literature and the results of site reconnaissance field surveys.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;
- meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- are identified as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- are identified as an SSC by the CDFW;

- are birds identified as Birds of Conservation Concern (BCC) by the U.S. Fish and Wildlife Service (USFWS);
- are included on the CDFW Watch List;
- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Ranks [CRPR] 1 and 2), plants listed by CNPS as species about which more information is needed to determine their status (CRPR 3), and plants of limited distribution (CRPR 4);
- are plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes); or
- are PCCP Covered Species.

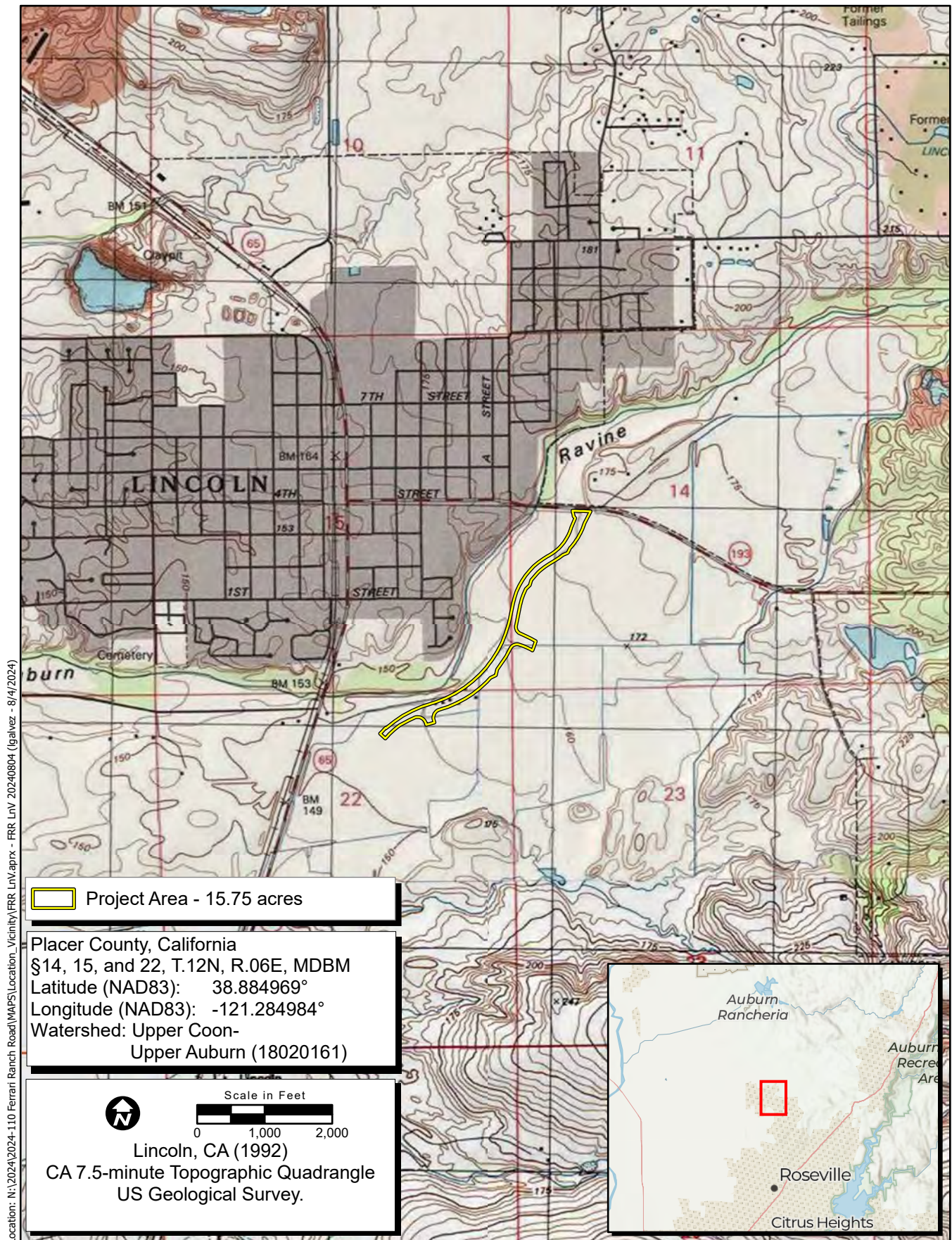


Figure 1. Project Location and Vicinity

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the USFWS or the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, the ESA prohibits removing or possessing any listed plant on federal land, maliciously damaging or destroying any listed plant in any area, or removing, cutting, digging up, damaging, or destroying any such species in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its designated Critical Habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement allowing take of a listed species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The protections of the MBTA extend to disturbances that result in abandonment of a nest with eggs or young. The USFWS may issue permits to qualified applicants as authorized by the MBTA for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits.

2.1.3 Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas:

...that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7b).

The U.S. Environmental Protection Agency also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

Western Placer County includes a County Aquatic Resources Program (CARP), which allows for streamlined permitting pursuant to CWA Sections 404 and 401 for impacts to Waters of the U.S. The CARP is discussed further in Section 2.2.6.

2.2 State or Local Regulations

2.2.1 California Fish and Game Code

2.2.1.1 California Endangered Species Act

The California ESA (California Fish and Game Code Sections 2050-2116) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Section 2081 allows CDFW to authorize incidental take permits if species-specific minimization and avoidance measures are incorporated to fully mitigate the impacts of the project.

2.2.1.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the state and/or federal ESAs. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code Sections 4700 for mammals, 3511 for birds, 5050 for reptiles and amphibians, and 5515 for fish) provided that fully protected species may not be taken or possessed at any time. However, on July 10, 2023, Senate Bill 147 was signed into law, authorizing CDFW to issue take permits under the California ESA for fully protected species for qualifying projects through 2033. Qualifying projects include:

- a maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources;

- a maintenance, repair, or improvement project to critical regional or local water agency infrastructure;
- a transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency, that does not increase highway or street capacity for automobile or truck travel;
- a wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the State to a point of junction with any California based balancing authority; or
- a solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the State to a point of junction with any California-based balancing authority.

CDFW may also issue licenses or permits for take of these species for necessary scientific research or live capture and relocation, and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

2.2.1.3 *Native Plant Protection Act*

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by CDFW and provided in California Fish and Game Code Sections 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.1.4 *Special Protections for Birds*

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protect birds. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 prohibits the take, possession, or destruction of any birds in the orders Strigiformes (owls) or Falconiformes (hawks and eagles), as well as their nests and eggs. Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that, with limited exceptions, it is unlawful to take any nongame bird, defined as all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. These provisions, along with the federal MBTA, serve to protect all nongame birds and their nests and eggs, except as otherwise provided in the code.

2.2.1.5 *Lake or Streambed Alteration Agreements*

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The notification must

incorporate proposed measures to protect affected fish and wildlife resources. CDFW may suggest additional protective measures during their review. A Lake or Streambed Alteration Agreement (LSAA) is the final proposal mutually agreed upon by CDFW and the applicant. Projects that require an LSAA often also require a permit from the USACE under Section 404 of the CWA. The conditions of the Section 404 permit and the LSAA frequently overlap in these instances.

The PCCP/CARP does not provide a streamlined process for obtaining an LSAA; therefore, if the Project would impact aquatic features under the jurisdiction of CDFW pursuant to Fish and Game Code Sections 1600-1616, an LSAA would need to be obtained through the standard LSAA Notification procedure.

2.2.2 California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was passed in 2001 to address loss of oak woodland habitats throughout the State. As a result of the Act, the Oak Woodland Conservation Program was established to provide funding for conservation and protection of California oak woodlands. Public Resources Code Section 21083.4 went into effect as of January 1, 2005 and requires lead agencies to analyze potential effects to oak woodlands during the CEQA process. The lead agency must implement one of several mitigation alternatives, including conservation of oak woodlands through conservation easements, planting or restoration of oak woodlands, contribution of funds to the Oak Woodlands Conservation Fund, or other appropriate mitigation measures if it is determined that a project may have a significant effect on oak woodlands.

2.2.3 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb 1 or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB also regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (Water Code 13260(a)). Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, which are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

The CARP allows for streamlined permitting pursuant to the CWA and complies with the Porter-Cologne Water Quality Act for impacts to Waters of the U.S. The CARP is discussed further in Section 2.2.6.

2.2.4 California Environmental Quality Act

Per CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in

the federal and California ESAs, and Sections 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

2.2.4.1 CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant. Generally, impacts to listed (i.e., rare, threatened, or endangered) species are considered significant. Assessment of *impact significance* to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Pursuant to Appendix G, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts

would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.2.4.2 Species of Special Concern

An SSC, as defined by the CDFW, is a species, subspecies, or distinct population of an animal native to California that is not legally protected under the ESA, the California ESA or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the State or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not State) threatened or endangered, and meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with threatened habitats. Projects that result in substantial impacts to SSC may be considered significant under CEQA.

2.2.4.3 USFWS Bird of Conservation Concern

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA." To meet this requirement, the USFWS published a list of BCC (USFWS 2021) for the U.S. The list identifies the migratory and nonmigratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities. Depending on the policy of the lead agency, projects that result in substantial impacts to BCC may be considered significant under CEQA.

2.2.4.4 Watch List Species

The CDFW maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Depending on the policy of the lead agency, projects that result in substantial impacts to species on the Watch List (WL) may be considered significant under CEQA.

2.2.4.5 California Rare Plant Ranks

The CNPS maintains the *Rare Plant Inventory* (CNPS 2024a), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. The rank system was developed in collaboration with government, academic, non-governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 0.1 through 0.3, with 0.1 being the most threatened and 0.3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

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

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank; and differences in Threat Ranks do not constitute additional or different protection (CNPS 2024a). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, 2A, or 2B are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

2.2.4.6 Sensitive Natural Communities

Sensitive natural communities are vegetation communities that are imperiled or vulnerable to environmental effects of projects. CDFW maintains the California Natural Community List (CDFW 2023a), which provides a list of vegetation alliances, associations, and special stands as defined in *A Manual of*

California Vegetation Online (MCV; CNPS 2024b), along with their respective state and global rarity ranks, if applicable. Natural communities with a state rarity rank of S1, S2, or S3 are considered sensitive natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

2.2.4.7 Wildlife Movement Corridors and Nursery Sites

Impacts to wildlife movement corridors or nursery sites may be considered significant under CEQA. As part of the California Essential Habitat Connectivity Project, CDFW and California Department of Transportation maintain data on Essential Habitat Connectivity areas. This data is available in the CNDDDB. The goal of this project is to map large intact habitat or natural landscapes and potential linkages that could provide corridors for wildlife. In urban settings, riparian vegetated stream corridors can also serve as wildlife movement corridors. Nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries, bat maternity roosts, and mule deer critical fawning areas. These data are available through CDFW's Biogeographic Information and Observation System (BIOS) database or as occurrence records in the CNDDDB and are supplemented with the results of the field reconnaissance.

2.2.5 Placer County Conservation Program

The PCCP is a regional effort that provides development and infrastructure projects with streamlined federal and state permitting processes while creating a preserve system to protect habitat, open space, and agricultural lands (Placer County 2020a). In addition to streamlining the ESA permitting processes, a parallel process has been developed to address permitting pursuant to the CWA Sections 404 and 401 permitting processes: the CARP. This process is further described in Section 2.2.6. The PCCP was prepared by local agencies (who will become the Permittees) including Placer County, the City of Lincoln, South Placer Regional Transportation Authority, Placer County Water Agency, and the Placer Conservation Authority (PCA), an entity created to implement the PCCP on behalf of the other Permittees. The PCCP will allow the aforementioned local agencies to receive incidental take permits for certain fish and wildlife species (i.e., Covered Species) from USFWS and CDFW for activities and projects overseen by the PCA.

The PCCP includes three separate, but complementary, components that support two sets of state and federal permits:

- Western Placer County HCP/NCCP. The PCCP is a joint HCP and NCCP that will protect fish and wildlife and their habitats and fulfill the requirements of the federal ESA and the California Natural Community and Conservation Planning Act.
- Western Placer CARP. The CARP will protect streams, wetlands, and other water resources and fulfill the requirements of the federal CWA and analogous state laws and regulations.
- In-Lieu Fee Program is a program under which compensatory mitigation requirements under Section 404 of the CWA can be fulfilled by payment of a fee. The In-Lieu Fee Program will provide wetland mitigation credits that can be used to fulfill Section 404 compensatory mitigation requirements. The In-Lieu Fee Program will provide compensatory mitigation for impacts on

aquatic resources for all projects and activities that are covered under the HCP/NCCP and the CARP.

Table 1 provides a list of the PCCP Covered Species.

Table 1. PCCP Covered Species				
Common Name	Scientific Name	Status*		
		ESA	CESA	Other
Birds				
Swainson's hawk	<i>Buteo swainsoni</i>	–	T	–
California black rail	<i>Laterallus jamaicensis coturniculus</i>	–	T	–
Burrowing owl	<i>Athene cunicularia</i>	–	–	SSC
Tricolored blackbird	<i>Agelaius tricolor</i>	–	T	–
Reptiles				
Giant garter snake	<i>Thamnophis gigas</i>	T	T	–
Northwestern pond turtle	<i>Actinemys marmorata</i>	–	–	SSC
Amphibians				
Foothill yellow-legged frog	<i>Rana boylei</i>	–	T	–
California red-legged frog	<i>Rana draytonii</i>	T	–	–
Fish				
Steelhead (California Central Valley Distinct Population Segment)	<i>Oncorhynchus mykiss irideus</i>	T	–	–
Chinook salmon (Central Valley fall/late fall-run Evolutionarily Significant Unit)	<i>Oncorhynchus tshawytscha</i>	–	–	SC, SSC
Invertebrates				
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	–	–
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	E	–	–
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	–	–
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E	–	–

Notes: CESA = California Endangered Species Act; ESA = federal Endangered Species Act; PCCP = Placer County Conservation Program

* Status Abbreviations: E = Endangered; SC = Federal Species of Concern; SSC = California Species of Special Concern; T = Threatened

2.2.6 Placer County Aquatic Resources Program

The Placer CARP is a program within the PCCP that uses the PCCP fees and conservation strategy to satisfy the mitigation requirements of impacting affected aquatic features, including Waters of the U.S. and Waters of the State in Placer County (Placer County 2020b). The purpose of the CARP is to provide a mechanism that streamlines the environmental permitting process as it pertains to impacts to aquatic

features that fall under the jurisdiction of the USACE and RWQCB. For projects with impacts that exceed 3.0 acres of Waters of the U.S. in total, or exceed 1.0 acre of impacts to vernal pools, or result in the loss of more than a total of 500 linear feet of streambed, a Letter of Permission will need to be obtained through the USACE. For projects that do not exceed these thresholds, a permit can be obtained through the CARP coverage under the PCCP Programmatic General Permit.

In addition to the aquatic features under the jurisdiction of the USACE and RWQCB, the PCCP/CARP also regulates activities being conducted within the *Stream System*, defined as primary streams and creeks as well as tributaries that contribute to the hydrology of primary streams and creeks located within the PCCP Plan Area.

2.2.7 Placer County Tree Preservation Article (Article 12.16)

Projects approved through the PCCP do not have to conform to the Placer County Tree Preservation Article. As such, projects mitigate through payment of land conversion and special habitat conversion fees.

The Placer County Tree Preservation Article (Article 12.16; Tree Preservation Article) requires tree permits for all development activities (except those that qualify under an exemption) within the protected zone of any protected tree on public or private land. The Tree Preservation Article does not allow for any person, firm, corporation, or county agency to harm, destroy, kill, or remove any protected tree unless authorized by a tree permit or as permitted pursuant to approval of a discretionary project.

The Tree Preservation Article is applicable to all native trees, landmark trees, riparian zone trees, and certain commercial firewood operations, except as exempted, with a single main stem or trunk at least 6 inches diameter at breast height (DBH), or a multiple trunk with an aggregate of at least 10 inches DBH. Foothill pine (*Pinus sabiniana*) is exempt from this article. In addition, certain plants commonly found as "brush," such as manzanita, are not considered to be trees in this article regardless of size.

3.0 METHODS

3.1 Literature Review

ECORP biologists performed a review of existing available information for the BSA. Literature sources included current and historical aerial imagery, any previous biological studies conducted for the area, topographic mapping, soil survey mapping available from the Natural Resources Conservation Service (NRCS) *Web Soil Survey*, USFWS National Wetlands Inventory (NWI) mapping, USFWS Critical Habitat Mapper, NMFS Essential Fish Habitat Mapper, and other relevant literature as cited throughout this document. ECORP reviewed the following resources to identify special-status plant and wildlife species that have been documented in or near the BSA:

- CDFW's CNDDDB data for the "Lincoln, California" 7.5-minute quadrangle and the surrounding eight quadrangles (CDFW 2024d);
- CNPS Rare Plant Inventory data for the "Lincoln, California" 7.5-minute quadrangle and the surrounding eight quadrangles (CNPS 2024a);
- USFWS Information for Planning and Consultation Resource Report List for the BSA (USFWS 2024b);
- NMFS Resources data for the "Lincoln, California" 7.5-minute quadrangle (National Oceanic and Atmospheric Administration [NOAA] 2022);
- PCCP Modeled Habitat for Covered Species information (Table 3-9 in the HCP/NCCP; Placer County 2020b).

The results of the database queries are provided in Appendix A. Each special-status species identified in the literature review is evaluated for its potential to occur in the BSA in Section 4 based on available information concerning species habitat requirements and distribution, occurrence data, and the findings of the site reconnaissance.

3.2 Site Reconnaissance

ECORP biologist Carmen David conducted the site reconnaissance visit on August 1, 2024. The biologist visually assessed the BSA while walking meandering transects through all portions of the site, using binoculars to scan inaccessible areas. The biologist collected the following biological resource information:

- Characteristics and approximate boundaries of vegetation communities and other land cover types;
- Plant and animal species or their sign directly observed;
- Elderberry (*Sambucus* sp.) shrub locations and characteristics;
- Characteristics and approximate extents of potential aquatic resources observed; and

- Incidental observations of special habitat features such as burrows, active raptor nests, potential bat roost sites.

The biologist qualitatively assessed and mapped vegetation communities based on dominant plant composition. Vegetation community classification was based on the classification systems presented in the MCV, paying special attention to identifying those portions of the BSA with the potential to support special-status species or sensitive habitats. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were taken during the survey to provide visual representation of the conditions within the BSA.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The BSA is located on level terrain along a paved road in an urban area. The BSA is situated at an elevational range of approximately 159 to 170 feet above mean sea level in the Northern Sierra Nevada Foothills Subregion of the Sierra Nevada Region in the California Floristic Province (Jepson eFlora 2024). The average winter low temperature is 38.3 degrees Fahrenheit (°F), and the average summer high temperature is 90.1°F; the average annual precipitation is approximately 36.12 inches at the Auburn, CA station, which is approximately 10.9 miles from the BSA (NOAA 2024).

The BSA is currently occupied by Ferrari Ranch Road and associated road infrastructure, sidewalks, and landscaping. Vegetation communities and plant species composition are described in further detail below.

Land uses surrounding the BSA include residential development to the south and the Auburn Ravine open space corridor to the north.

Representative photographs of the BSA are provided in Appendix B.

4.2 Soils and Geology

The BSA is completely developed, so there are no native soils present at the surface. Prior to development, two soil units were mapped in the BSA (Figure 2; NRCS 2024b). Table 2 provides an overview of the soil series mapped within the BSA and key features of the soil series, such as hydric rating or presence of serpentine or gabbroic soil material.

Table 2. Soil Series Mapped within the Biological Study Area			
Map Unit Symbol	Map Unit Name	Rating	Hydric Soil Rating
174	Ramona sandy loam, 0 to 2 percent slopes	Alluvium derived from granite	Yes
194	Xerofluvents, frequently flooded	Alluvium	Yes

Source: Natural Resources Conservation Service 2024a, 2024b

No soil units derived from serpentinite or gabbroic parent materials are known to occur within the BSA or its immediate vicinity (Horton 2017; Jennings et al. 1977).



Map Contents

Biological Study Area - 15.75 acres

Series Number - Series Name

174 - Ramona sandy loam, 0 to 2 percent slopes

194 - Xerofluvents, frequently flooded

Natural Resources Conservation Service (NRCS)
Soil Survey Geographic (SSURGO) Database for
Placer County, CA

Sources: Esri World Imagery, Maxar 2022

Location: N:\2024\2024-110 Ferrari Ranch Road\MAPS\Soils_and_Geology\FRR Soils.aprx - FRR Soils 20240807 (lgalvez - 8/8/2024)

4.3 Placer County Conservation Program Terrestrial Land-Cover Types and Vegetation Communities

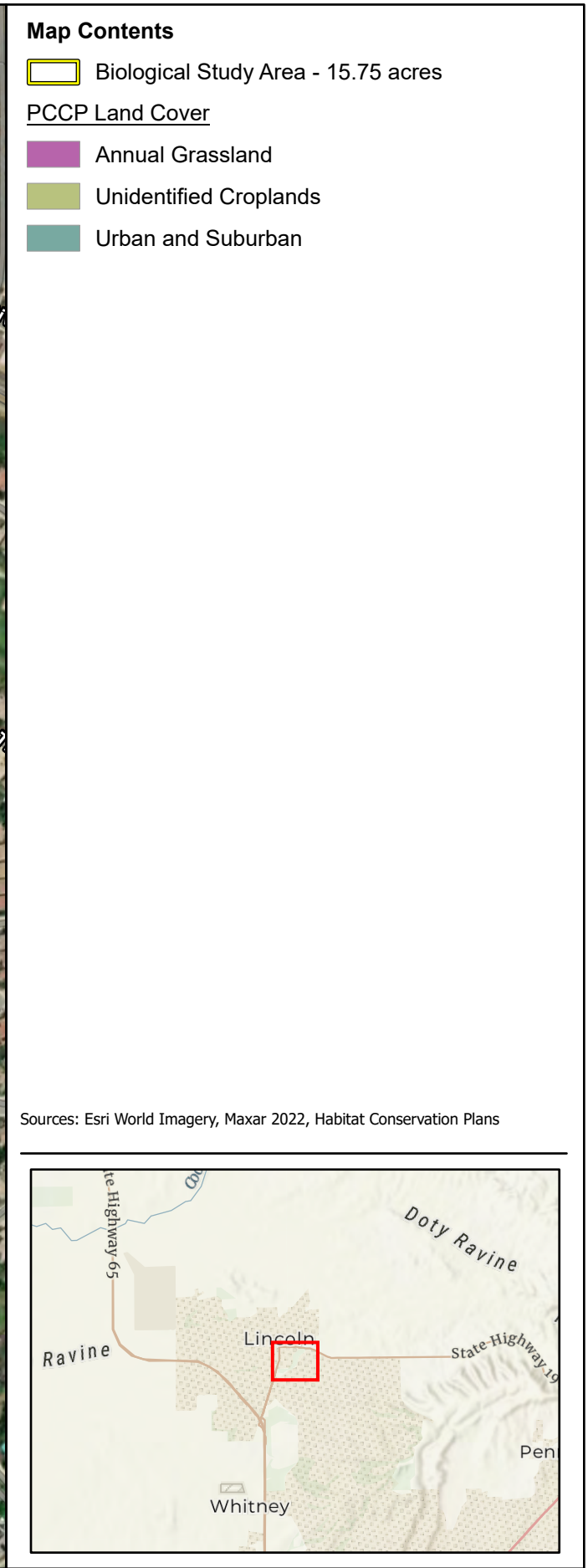
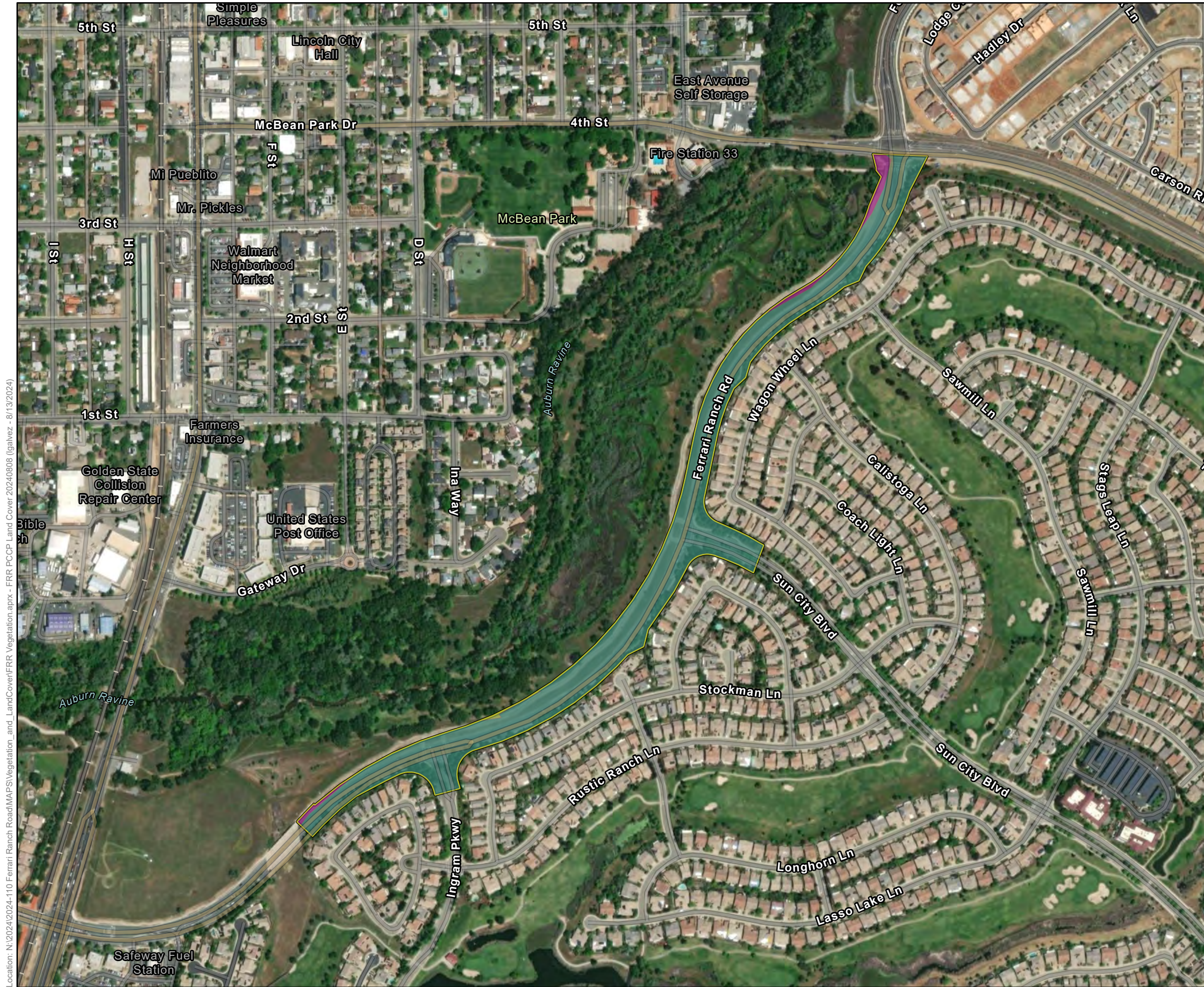
PCCP Land Cover data (i.e., PCCP-Covered Species Modeled Habitat data) within the BSA were reviewed and are presented in Figure 3. Pending PCCP approval, due to the level of disturbance throughout the BSA including previous removal of native soils, planting of seed mix for erosion control, landscaping, and management activities including mowing, the land cover types onsite were reevaluated (Table 3; Figure 4; Appendix B).

Table 3. PCCP Land Cover Types within the Biological Study Area	
PCCP Land Cover Type	Acreage
Urban	
<i>Urban and Suburban</i>	<i>15.75</i>
Total	15.75

Notes: PCCP = Placer County Conservation Program

One PCCP land cover type, Urban and Suburban, occurs within the BSA. Urban and suburban areas, as defined in the PCCP, are areas where development is denser than one dwelling unit per acre and are located along with intensive non-residential land uses, including commercial, industrial, office, and related uses. Urban neighborhoods that were built in the last 40 or 50 years tend to have younger or smaller trees and less structural diversity than older neighborhoods. Intensively developed areas with highly manicured yards typically have very low wildlife habitat values. Small lawns and mature hedges in urban and suburban areas include many introduced fruiting species that may be attractive to birds and other wildlife (Placer County 2020a).

The entirety of the BSA is composed of the Urban and Suburban land cover type. Ferrari Ranch Road, which comprises the majority of the BSA, is a paved road that is devoid of vegetation. Sparse ruderal vegetation, including puncture vine (*Tribulus terrestris*), turkey mullein (*Croton setiger*), and stinkwort (*Dittrichia graveolens*), is scattered along the western border of the BSA. The eastern border consists of maintained landscaping with a variety of horticultural tree and shrub species including coast redwood (*Sequoia sempervirens*), box-elder (*Acer negundo*), eastern redbud (*Cercis canadensis*), creeping manzanita (*Arctostaphylos* sp.), Japanese cheesewood (*Pittosporum tobira*), and Indian hawthorn (*Rhaphiolepis indica*). A full list of plants observed onsite can be found in Appendix C.



4.4 Aquatic Resources

4.4.1 Preliminary Aquatic Resources Assessment

A preliminary aquatic resources assessment was conducted to identify potential Waters of the U.S./State within the BSA concurrent with the reconnaissance-level field assessment. No aquatic features were observed within the BSA.

Review of the NWI showed one mapped aquatic feature within the BSA (USFWS 2024a; Figure 5). The NWI mapping designation (NWI code) indicates the presence of a riverine feature and flows in and out of the BSA. The BSA is completely developed so this feature is no longer present. Note that the NWI inventory mapping is a national dataset based on data prepared from the analysis of high-altitude imagery in conjunction with collateral data sources and field work. A margin of error is inherent in the use of imagery; thus, on-the-ground inspection of a particular study area is needed to confirm wetland boundaries and classifications.

4.4.2 Placer County Conservation Program Stream System

Auburn Ravine, which is located offsite to the northwest of the BSA, is part of the PCCP Stream System (Placer County 2020a). The waterway is not located within the BSA boundaries, but a portion of the PCCP Stream System buffer is (Figure 6).

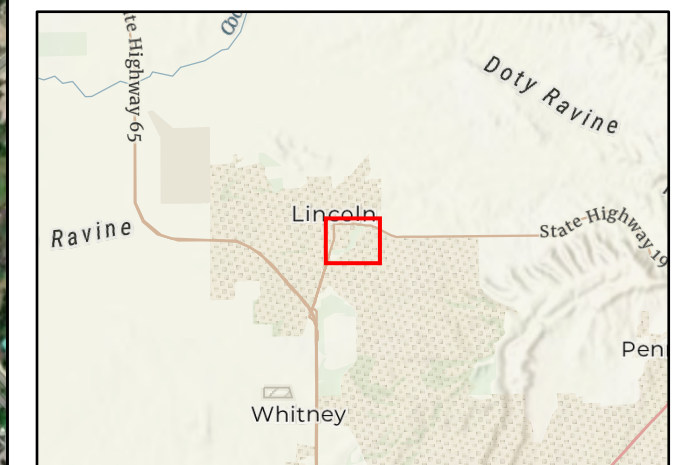
Location: N:\2024\2024-110 Ferrari Ranch Road\Maps\Aquatic_Resources\FRR NWI 20240807 (lgalvez - 8/8/2024)



Map Contents

- Biological Study Area - 15.75 acres
- NWI Type
- Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Riverine

Sources: Maxar (2022), ESRI, National Wetlands Inventory



Map Date: 8/8/2024

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

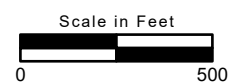
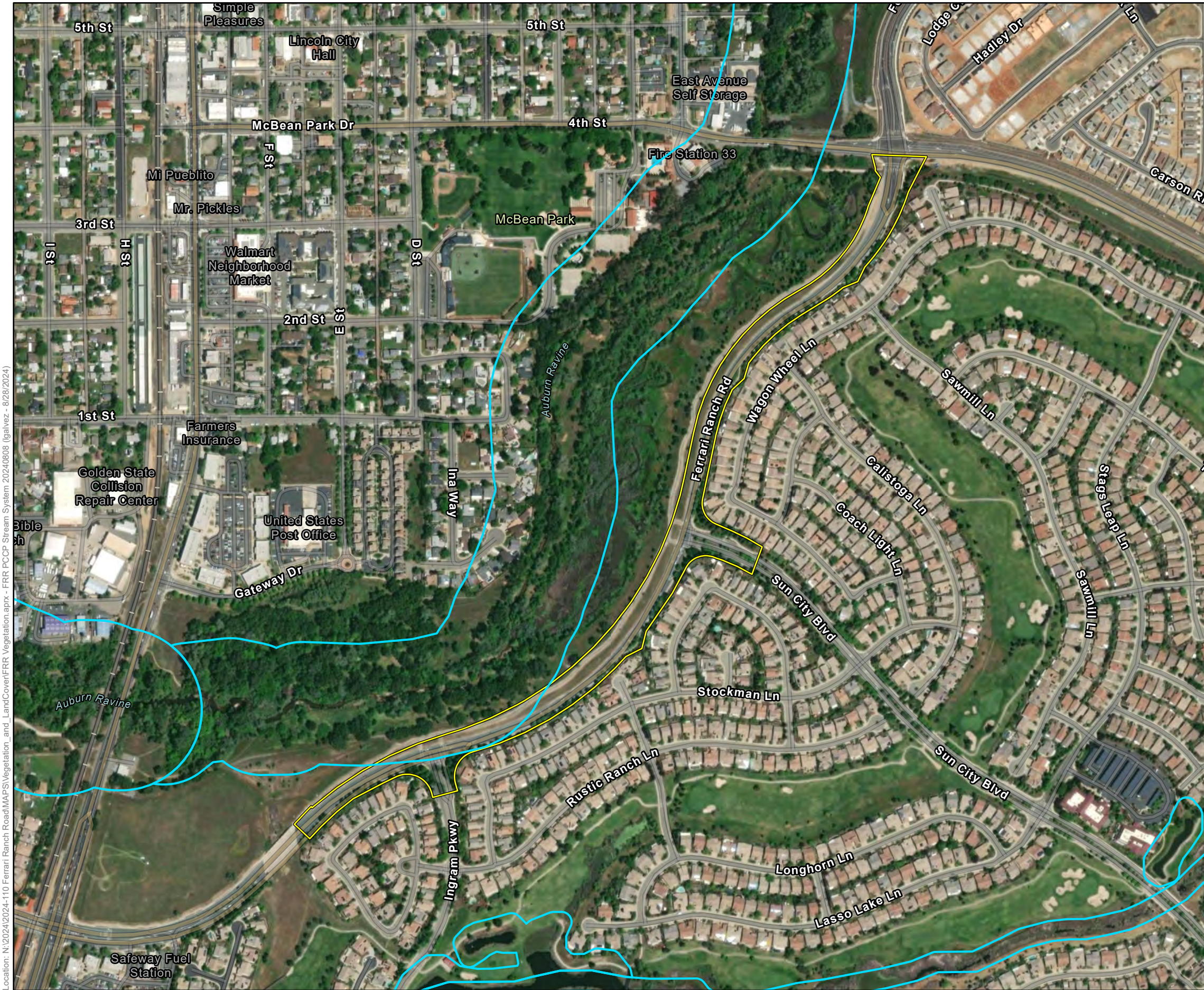


Figure 5. National Wetlands Inventory

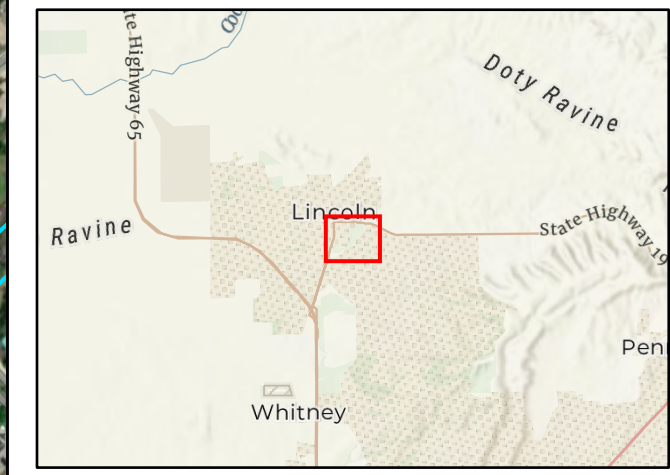
2024-110 Ferrari Ranch Road Improvements



Map Contents

- Biological Study Area - 15.75 acres
- PCCP Stream System

Sources: Esri World Imagery, Maxar 2022



Location: N:\2024\2024-110 Ferrari Ranch Road\Maps\Vegetation_and_LandCover\FRR PCCP Stream System 20240808 (Jgalvez - 8/28/2024)

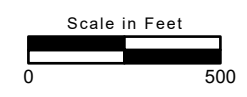


Figure 6. PCCP Stream System
2024-110 Ferrari Ranch Road Improvements

4.5 Wildlife

The urban setting in the BSA provides minimal habitat for wildlife species. Bird species observed onsite or in the vicinity include Anna's hummingbird (*Calypte anna*), red-shouldered hawk (*Buteo lineatus*) from the adjacent open space area, turkey vulture (*Cathartes aura*) soaring overhead, California scrub-jay (*Aphelocoma californica*), bushtit (*Psaltiriparus minimus*), and house finch (*Haemorhous mexicanus*). Landscaping trees and shrubs could support nesting habitat for native and non-native birds such as mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), and house finch. Other species that could be found in the BSA include Sierran treefrog (*Pseudacris sierra*), western fence lizard (*Sceloporus occidentalis*), house mouse (*Mus musculus*), and brown rat (*Rattus norvegicus*).

4.6 Special-Status Species

Table 4 presents the list of special-status plant and animal species identified through the literature review. For each species, the table provides the listing status, a brief description of habitat requirements and/or species ecology, a determination of the potential to occur within the BSA, and the rationale for that determination. The potential for each species to occur onsite was assessed using the following criteria:

- Present – Species was observed during the site visit or is known to occur within the BSA based on recent documented occurrences within the CNDDDB or other literature.
- Potential to Occur – Suitable habitat (including soils and elevation requirements) occurs in the BSA, and the species is known or expected to occur in the Project vicinity based on available data sources or professional knowledge/experience.
- Low Potential to Occur – Marginal or limited amounts of habitat occur, or the species is not known to occur in the vicinity of the Project based on CNDDDB records and other available information.
- Presumed Absent – No suitable habitat (including soils and elevation requirements) or the species is not known to occur within the vicinity of the Project based on CNDDDB records and other documentation.

Following the table is a brief description and discussion of each special-status species that was determined to have potential to occur onsite.

Table 4. Special-Status Species Evaluation					
Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Plants					
Mexican mosquito fern (<i>Azolla microphylla</i>)	–	–	4.2	Marshes and swamps, ponds or slow-moving bodies of water. Elevation: 100'–330' Bloom Period: August	Presumed absent. There is no suitable habitat within the BSA.
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	–	–	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils. Elevation: 150'–5,100' Bloom Period: March–June	Presumed absent. There is no suitable habitat within the BSA.
Valley brodiaea (<i>Brodiaea rosea</i> ssp. <i>vallicola</i>)	–	–	4.2	Occurs in old alluvial terraces and silt, sandy, or gravelly soils in vernal pools and swales within valley and foothill grassland. Elevation: 35'–1,100' Bloom Period: April–May	Presumed absent. There is no suitable habitat within the BSA.
Sierra foothills brodiaea (<i>Brodiaea sierrae</i>)	–	–	4.3	Usually found on serpentine or gabbroic soils within chaparral or cismontane woodland. Elevation: 165'–3,215' Bloom Period: May–August	Presumed absent. There is no suitable habitat within the BSA.
Spicate calycadenia (<i>Calycadenia spicata</i>)	–	–	1B.3	Adobe, clay, disturbed areas, dry, gravelly, openings, roadsides, and rocky sites within cismontane woodland and valley and foothill grassland. Elevation: 130'–4,595' Bloom Period: May– September	Presumed absent. There is no suitable habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Hispid salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	–	–	1B.1	Alkaline soils in meadows and seeps, playas, and valley and foothill grasslands. Elevation: 5'–510' Bloom Period: June–September	Presumed absent. There is no suitable alkaline habitat within the BSA.
Brandegee's clarkia (<i>Clarkia biloba</i> ssp. <i>brandegeae</i>)	–	–	4.2	Chaparral, cismontane woodlands, and lower montane coniferous forest often along roadcuts. Elevation: 245'–3,000' Bloom Period: May–July	Presumed absent. There is no suitable habitat within the BSA.
Dwarf downingia (<i>Downingia pusilla</i>)	–	–	2B.2	Mesic areas in valley and foothill grassland, and vernal pools. Species has also been found in disturbed areas such as tire ruts and scraped depressions (CDFW 2024d). Elevation: 5'–1,460' Bloom Period: March–May	Presumed absent. There is no suitable habitat within the BSA.
Stinkbells (<i>Fritillaria agrestis</i>)	–	–	4.2	Clay and sometimes serpentine soils in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 35'–5,100' Bloom Period: March–June	Presumed absent. There is no suitable habitat within the BSA.
Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>)	–	CE	1B.2	Clay substrates of marshes and swamps (lake margins) and vernal pools. Elevation: 35'–7,790' Bloom Period: April–August	Presumed absent. There is no suitable habitat within the BSA.
Woolly rose-mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	–	–	1B.2	Marshes and freshwater swamps. Often in riprap on sides of levees. Elevation: 0'–395' Bloom Period: June–September	Presumed absent. There is no suitable habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Ahart's dwarf rush (<i>Juncus leiospermus</i> var. <i>ahartii</i>)	–	–	1B.2	Mesic areas in valley and foothill grassland. Species has an affinity for slight disturbance such as farmed fields (USFWS 2005). Elevation: 100'–750' Bloom Period: March–May	Presumed absent. There is no suitable habitat within the BSA.
Red Bluff dwarf rush (<i>Juncus leiospermus</i> var. <i>leiospermus</i>)	–	–	1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. Elevation: 115'–4,100' Bloom Period: March–June	Presumed absent. There is no suitable habitat within the BSA and the BSA is outside the known geographic range for this species (CDFW 2024d).
Legenere (<i>Legenere limosa</i>)	–	–	1B.1	Various seasonally inundated areas including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages (USFWS 2005). Elevation: 5'–2,885' Bloom Period: April–June	Presumed absent. There is no suitable habitat within the BSA.
Bristly leptosiphon (<i>Leptosiphon aureus</i>)	–	–	4.2	Chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. Elevation: 180'–4,920' Bloom Period: April–July	Presumed absent. There is no suitable habitat within the BSA.
Humboldt lily (<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>)	–	–	4.2	Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 295'–4,200' Bloom Period: May–July	Presumed absent. There is no suitable habitat within the BSA.
Pincushion navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>)	–	–	1B.1	Often acidic soils in vernal pools. Elevation: 65'–1,085' Bloom Period: April–May	Presumed absent. There is no suitable habitat within the BSA.

Table 4. Special-Status Species Evaluation					
Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Oval-leaved viburnum (<i>Viburnum ellipticum</i>)	–	–	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities. Elevation: 705'–4,595' Bloom Period: May–June	Presumed absent. There is no suitable habitat within the BSA.
Brazilian watermeal (<i>Wolffia brasiliensis</i>)	–	–	2B.3	Assorted shallow freshwater marshes and swamps. Elevation: 65'–330' Bloom Period: April–December	Presumed absent. There is no suitable habitat within the BSA.
Invertebrates					
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	–	PCCP	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	–	PCCP	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE	–	PCCP	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Presumed absent. There is no suitable aquatic habitat or PCCP Modeled Habitat present within the BSA.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	–	PCCP	Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California's Central Valley from Shasta to Madera counties.	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Monarch butterfly (overwinter population) <i>(Danaus plexippus)</i>	FC	–	–	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.	Presumed absent. No overwintering habitat is present within the BSA.
Crotch bumble bee <i>(Bombus crotchii)</i>	–	CC	–	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico. Survey Period: March-September	Low potential to occur. The BSA is in the current mapped range, however the high level of disturbance of the BSA may only provide suitable foraging and marginally suitable nesting habitat for this species.
Fish					
Green sturgeon <i>(Acipenser medirostris)</i>	FT	–	CDFW: SSC	Anadromous; undammed cold-water rivers having relatively deep pools with large substrates. Survey Period: N/A	Presumed absent. There is no suitable aquatic habitat within the BSA.
Steelhead (CA Central Valley DPS) <i>(Oncorhynchus mykiss irideus)</i>	FT	–	PCCP	Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems. Survey Period: N/A	Presumed absent. Auburn Ravine is PCCP Modeled Habitat but there is no suitable aquatic habitat within the BSA.
Chinook salmon (Central Valley spring-run ESU) <i>(Oncorhynchus tshawytscha)</i>	FT	CT	–	Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems. Survey Period: N/A	Presumed absent. There is no suitable aquatic habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Chinook salmon (Central Valley fall/late fall-run ESU) (<i>Oncorhynchus tshawytscha</i>)	–	–	SSC, PCCP	Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems. Survey Period: N/A	Presumed absent. Auburn Ravine is PCCP Modeled Habitat but there is no suitable aquatic habitat within the BSA.
Amphibians					
California red-legged frog (<i>Rana draytonii</i>)	FT	–	SSC, PCCP	Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down. Survey Period: January – Sept.	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.
Foothill yellow-legged frog Northeast/Northern Sierra Clade (<i>Rana boylei</i>)	–	CT	SSC, PCCP	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Yuba River to Middle Fork American River and Sutter Buttes. Survey Period: May–October.	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.

Table 4. Special-Status Species Evaluation					
Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Western spadefoot (Northern DPS) <i>(Spea hammondi)</i>	FPT	–	SSC	California endemic species of vernal pools, swales, and seasonal wetlands in grassland, scrub and woodland habitats throughout the Central Valley and South Coast Ranges. Prefers open areas with sandy or gravelly soils. Survey Period: Winter-Spring.	Presumed absent. There is no suitable habitat within the BSA.
Reptiles					
Northwestern pond turtle <i>(Actinemys marmorata)</i>	FPT	–	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches. Survey Period: April-September	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.
Giant garter snake <i>(Thamnophis gigas)</i>	FT	CT	PCCP	Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range. Survey Period: April-October	Presumed absent. There is no PCCP Modeled Habitat present within the BSA and the BSA is outside the known geographic range of this species (Placer County 2020a).
Birds					
Western grebe <i>(Aechmophorus occidentalis)</i>	–	–	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Nests on freshwater lakes and marshes with open water bordered by emergent vegetation. Nesting: June-August	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Clark's grebe (<i>Aechmophorus clarkii</i>)	–	–	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Breeds on freshwater to brackish marshes, lakes, reservoirs and ponds, with a preference for large stretches of open water fringed with emergent vegetation. Nesting: June-August	Presumed absent. There is no suitable nesting habitat within the BSA.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	–	CT	CFP, PCCP	Salt marsh, shallow freshwater marsh, wet meadows, and flooded grassy vegetation. In California, primarily found in coastal and Bay-Delta communities, but also in Sierran foothills (Butte, Yuba, Nevada, Placer, El Dorado counties). Nesting: March-September	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 250 feet of the BSA.
Marbled godwit (<i>Limosa fedoa</i>)	–	–	BCC	Nests in Montana, North and South Dakota, Minnesota, into Canada. Winter range along Pacific Coast from British Columbia south to Central America, with small numbers wintering in interior California. Wintering habitat includes coastal mudflats, meadows, estuaries, sandy beaches, sandflats, and salt ponds. Migrant/Wintering in CA: August-April	Presumed absent. There is no suitable overwintering habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Short-billed Dowitcher (<i>Limnodromus griseus</i>)	–	–	BCC	Nests in Canada, southern Alaska; winters in coastal California south to South America; wintering habitat includes coastal mudflats and brackish lagoons. Migrant/Wintering: late-August-May	Presumed absent. There is no suitable habitat within the BSA.
Willet (<i>Tringa semipalmata</i>)	–	–	BCC	Breeds locally in interior of western North America. In California, breeding range includes the Klamath Basin and Modoc Plateau and portions of Mono and possibly Inyo counties. Breeding habitat includes prairies, Breeds in wetlands and grasslands on semiarid plains; in uplands near brackish or saline wetlands; prefers temporary, seasonal, and alkali wetlands over semipermanent and permanent wetlands. Nesting: April-August	Presumed absent. There is no suitable habitat within the BSA.
California gull (nesting colony) (<i>Larus californicus</i>)	–	–	BCC, CDFW WL	Nesting occurs in the Great Basin, Great Plains, Mono Lake, and south San Francisco Bay. Breeding colonies located on islands on natural lakes, rivers, or reservoirs. Winters along Pacific Coast from southern British Columbia south to Baja California and Mexico. In California, winters along coast and inland (Central Valley, Salton Sea). Nesting: April-August	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation					
Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Black tern (<i>Chlidonias niger</i>)	–	–	BCC, SSC	Breeding range includes northeastern California, Central Valley, Great Plains of U.S., and Canada; winters in Central and South America; nesting habitat includes shallow freshwater marsh with emergent vegetation, prairie sloughs, lake margins, river islands, and cultivated rice fields. Nesting: May-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Osprey (<i>Pandion haliaetus</i>)	–	–	CDFW WL	Nesting habitat requires close proximity to accessible fish, open nest site free of mammalian predators, and extended ice-free season. Nest in large trees, snags, cliffs, transmission/communication towers, artificial nest platforms, channel markers/buoys. Nesting: April-September	Presumed absent. There is no suitable nesting habitat within the BSA.
White-tailed kite (<i>Elanus leucurus</i>)	–	–	CFP	Nesting occurs within trees in low elevation grassland, agricultural, wetland, oak woodland, riparian, savannah, and urban habitats. Nesting: March-August	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Golden eagle (<i>Aquila chrysaetos</i>)	–	–	CFP, CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g., windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter. Nesting: February-August Wintering in Central Valley: October-February	Presumed absent. Due to the high level of disturbance in and around the BSA, the BSA does not provide suitable nesting habitat.
Northern harrier (<i>Circus hudsonius</i>)	–	–	BCC, SSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrub-steppe, and (rarely) riparian woodland communities. Nesting: April-September	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Bald eagle <i>(Haliaeetus leucocephalus)</i>	De-listed	CE	CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands. Nesting: February-September Wintering: October-March	Presumed absent. Due to the high level of disturbance in and around the BSA, the BSA does not provide suitable nesting habitat.
Swainson's hawk <i>(Buteo swainsoni)</i>	–	CT	PCCP	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, irrigated pastures. Nesting: March-August	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 0.25 mile of the BSA.
Western screech-owl <i>(Megascops kennicottii)</i>	–	–	BCC	Breeding habitat includes vegetation communities with deciduous trees, such as riparian, desert, and oak and pine-oak woodlands. Nesting: March-July	Presumed absent. There is no suitable habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Burrowing owl (<i>Athene cunicularia</i>)	–	–	BCC, SSC, PCCP	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds. Nesting: February-August	Presumed absent. There is no PCCP Modeled Habitat present within the BSA.
Nuttall's woodpecker (<i>Dryobates nuttallii</i>)	–	–	BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands. Nesting: April-July	Presumed absent. There is no suitable nesting habitat within the BSA.
Yellow-billed magpie (<i>Pica nuttallii</i>)	–	–	BCC	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah with large in large expanses of open ground; also found in urban parklike settings. Nesting: April-June	Presumed absent. There is no suitable nesting habitat within the BSA.
Oak titmouse (<i>Baeolophus inornatus</i>)	–	–	BCC	Nests in tree cavities within dry oak or oak-pine woodland and riparian; where oaks are absent, they nest in juniper woodland, open forests (gray, Jeffrey, Coulter, pinyon pines and Joshua tree). Nesting: March-July	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Bank swallow (<i>Riparia riparia</i>)	–	CT	–	Nests colonially along coasts, rivers, streams, lakes, reservoirs, and wetlands in vertical banks, cliffs, and bluffs in alluvial, friable soils. May also nest in sand, gravel quarries and road cuts. In California, breeding range includes northern and central California. Nesting: May-July	Presumed absent. There is no suitable nesting habitat within the BSA.
Purple martin (<i>Progne subis</i>)	–	–	SSC	In California, breeds along coast range, Cascade-northern Sierra Nevada region and isolated population in Sacramento. Nesting habitat includes montane forests, Pacific lowlands with dead snags; the isolated Sacramento population nests in weep holes under elevated highways/bridges. Winters in South America. Nesting: May-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Wrentit (<i>Chamaea fasciata</i>)	–	–	BCC	Coastal sage scrub, northern coastal scrub, chaparral, dense understory of riparian woodlands, riparian scrub, coyote brush and blackberry thickets, and dense thickets in suburban parks and gardens. Nesting: March-August	Presumed absent. There is no suitable nesting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Grasshopper sparrow <i>(Ammodramus</i> <i>savannarum)</i>	–	–	BCC, SSC	In California, breeding range includes most coastal counties south to Baja California; western Sacramento Valley and western edge of Sierra Nevada region. Nests in moderately open grasslands and prairies with patchy bare ground. Avoids grasslands with extensive shrub cover; more likely to occupy large tracts of habitat than small fragments; removal of grass cover by grazing often detrimental. Nesting: May-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Belding's savannah sparrow <i>(Passerculus</i> <i>sandwichensis beldingi)</i>	–	CE	BCC	Resident coastally from Point Conception south into Baja California; coastal salt marsh. Year-round resident; nests March-August	Presumed absent. There is no suitable nesting habitat within the BSA.
Santa Barbara song sparrow <i>(Melospiza melodia</i> <i>graminea)</i>	-	-	BCC	Breeding habitat includes dense shrubs and thickets of giant coreopsis (<i>Coreopsis gigantea</i>), grasslands with scattered shrubs, Artemisia-Opuntia grass associations, and dense grasslands. Resident on California Channel Islands (San Clemente, San Miguel, Santa Cruz, Santa Rosa, Anacapa) and Isla Los Coronados, Baja California. Nesting: February-July	Presumed Absent. This subspecies is endemic to the Channel Islands.

Table 4. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Song sparrow "Modesto" <i>(Melospiza melodia heermanni)</i>	–	–	SSC	Resident in central and southwest California, including Central Valley; nests in marsh, scrub habitat. Nesting: April-June	Presumed absent. There is no suitable nesting habitat within the BSA.
Yellow-breasted chat <i>(Icteria virens)</i>	–	–	SSC	Early successional riparian habitats with a well-developed shrub layer and an open canopy. Narrow borders of streams, creeks, sloughs, and rivers. Taller trees like cottonwood (<i>Populus</i> sp.) and alder (<i>Alnus</i> sp.) are necessary for song perches. Nesting: March-September	Presumed absent. There is no suitable nesting habitat within the BSA.
Tricolored blackbird <i>(Agelaius tricolor)</i>	–	CT	BCC, SSC, PCCP	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields (Beedy et al. 2020). Nesting: March-August	Potential to occur. There is no PCCP Modeled Habitat present within the BSA, however there is PCCP Modeled Habitat within 1,640 feet of the BSA.
Bullock's oriole <i>(Icterus bullockii)</i>	–	–	BCC	Breeding habitat includes riparian and oak woodlands. Nesting: March-July	Presumed absent. There is no suitable habitat within the BSA.

Table 4. Special-Status Species Evaluation					
Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	–	–	BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County. Nesting: March-July	Presumed absent. There is no suitable habitat within the BSA.
Mammals					
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	–	–	SSC	Occurs throughout the west and is distributed from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains, with isolated populations occurring in the central and eastern United States. It has been reported in a wide variety of habitat types ranging from sea level to 3,300 meters. Habitat associations include: coniferous forests, mixed meso-phytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Roosting can occur within caves, mines, buildings, rock crevices, trees. Survey Period: April- September	Presumed absent. There is no suitable roosting habitat within the BSA.

Table 4. Special-Status Species Evaluation

Common Name (<i>Scientific Name</i>)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other		
Pallid bat <i>(Antrozous pallidus)</i>	–	–	SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of redwoods, cavities of oaks, exfoliating pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as vacant buildings (WBWG 2024). Survey Period: April-September	Presumed absent. There is no suitable roosting habitat within the BSA.

Notes: CESA = California Endangered Species Act; DPS = Distinct Population Segment; ESA = Federal Endangered Species Act; ESU = Evolutionary Significant Unit; NPPA = Native Plant Protection Act

Status Codes:

BCC	USFWS Bird of Conservation Concern (USFWS 2021)
SSC	CDFW Species of Special Concern
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5050-reptiles/amphibians)
CDFW	CDFW Watch List
WL	CDFW Watch List
1A	CRPR/Presumed extinct
1B	CRPR/Rare or Endangered in California and elsewhere
2A	CRPR/Plants presumed extirpated in California but common elsewhere
2B	CRPR/Plants rare, threatened, or endangered in California but more common elsewhere
3	CRPR/Plants About Which More Information is Needed – A Review List
4	CRPR/Plants of Limited Distribution – A Watch List
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)
PCCP	Placer County Conservation Program Covered Species

4.6.1 Crotch Bumble Bee

The Crotch bumble bee (*Bombus crotchii*) is a candidate for listing as endangered under the California ESA. The historic range of the Crotch bumble bee extends from coastal areas east to the edges of the desert in central California south to Baja California del Norte, Mexico, excluding mountainous areas (Thorp et al. 1983; Williams et al. 2014). The species was historically common throughout the southern two-thirds

of its range but is now largely absent from much of that area and is nearly extirpated from the center of its historic range, the Central Valley (Hatfield et al. 2014).

The Crotch bumble bee inhabits open grassland and scrub habitats (Williams et al. 2014). The species visits a wide variety of flowering plants, although its very short tongue makes it best suited to forage at open flowers with short corollas (Xerxes Society 2018). Plant families most commonly associated with Crotch bumble bee include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (Xerxes Society 2018). The species primarily nests underground (Williams et al. 2014). Little is known about overwintering sites for the species, but bumble bees generally overwinter in soft, disturbed soils or under leaf litter or other debris (Goulson 2010; Williams et al. 2014). The flight period for Crotch bumble bee queens in California is from late February to late October, peaking in early April with a second pulse in July (Thorp et al. 1983). The flight period for workers and males in California is from late March through September with peak abundance in early July (Thorp et al. 1983).

There are no documented CNDDDB occurrences of Crotch bumble bee within 5 miles of the BSA (CDFW 2024d). Due to the high level of disturbance within the BSA, the BSA may only provide suitable foraging and marginally suitable nesting habitat for this species. Crotch bumble bee has low potential to occur onsite.

4.6.2 California Black Rail

California black rail (*Laterallus jamaicensis coturniculus*) is listed as a threatened species and protected pursuant to the California ESA, is fully protected pursuant to California Fish and Game Code Section 3511, and is a PCCP Covered Species. Typical habitat for black rails includes coastal saltmarsh, shallow freshwater marsh, wet meadows, and flooded grassy vegetation (Eddleman et al. 2020). They are found in marshes and meadows where the water depth is less than three centimeters, and the difficulty of maintaining these shallow depths may limit distribution (Eddleman et al. 2020). California black rails are a year-round resident in the San Francisco Bay region and a discontinuous resident breeding population in the Sierra Nevada foothills (elevation range of 300 feet to 1,000 feet) within Placer, Yuba, Butte, and Nevada counties (Beedy and Pandalfino 2013). According to the CNDDDB, black rails nested in El Dorado Hills, El Dorado County in 2017 (CDFW 2024d). Nesting typically occurs from March through September (Eddleman et al. 2020).

There is one documented CNDDDB occurrence of California black rail within 5 miles of the BSA (CDFW 2024d). There is no PCCP Modeled Habitat within the BSA, however there is PCCP Modeled Habitat within 250 feet of the BSA.

4.6.3 Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species and is protected pursuant to the California Endangered Species Act and is a PCCP Covered Species. This species nests in North America (Canada, western U.S., and Mexico) and typically winters from South America north to Mexico. However, a small population has been observed wintering in the Sacramento-San Joaquin River Delta (Bechard et al. 2020). In California, the nesting season for Swainson's hawk ranges from mid-March to late August.

Swainson's hawks nest in tall trees in a variety of wooded communities including riparian, oak woodland, roadside landscape corridors, urban areas, and agricultural areas, among others. Foraging habitat includes open grassland, savannah, low-cover row crop fields, and livestock pastures. In the Central Valley, Swainson's hawks typically feed on a combination of California vole (*Microtus californicus*), California ground squirrel (*Otospermophilus beecheyi*), ring-necked pheasant (*Phasianus colchicus*), many passerine birds, and grasshoppers (*Melanoplus* species). Swainson's hawks are opportunistic foragers and will readily forage in association with agricultural mowing, harvesting, discing, and irrigating (Estep 1989). The removal of vegetative cover by such farming activities results in more readily available prey items for this species.

There are two documented CNDDDB occurrences of Swainson's Hawk within 5 miles of the BSA (CDFW 2024d). There is no PCCP Modeled Habitat within the BSA, however there is PCCP Modeled Habitat within 0.25 miles of the BSA.

4.6.4 Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) was granted emergency listing for protection under the California ESA in December 2014, but the listing status was not renewed in June 2015. After an extensive status review, the California Fish and Game Commission listed tricolored blackbirds as a threatened species in 2018. In addition, it is currently considered a USFWS BCC, a CDFW SSC, and a PCCP Covered Species. This colonial nesting species is distributed widely throughout the Central Valley, Coast Range, and into Oregon, Washington, Nevada, and Baja California (Beedy et al. 2020). Tricolored blackbirds nest in colonies that can range from several pairs to several thousand pairs, depending on prey availability, the presence of predators, or level of human disturbance. Tricolored blackbirds nesting habitat includes emergent marsh, riparian woodland/scrub, blackberry thickets, densely vegetated agricultural and idle fields (e.g., wheat, triticale, safflower, fava bean fields, thistle, mustard, cane, and fiddleneck), usually with some nearby standing water or ground saturation (Beedy et al. 2020). They feed mainly on grasshoppers during the breeding season but may also forage upon a variety of other insects, grains, and seeds in open grasslands, wetlands, feedlots, dairies, and agricultural fields (Beedy et al. 2020). The nesting season is generally from March through August.

There are 13 documented CNDDDB occurrences of tricolored blackbird within 5 miles of the BSA (CDFW 2024d). There is no PCCP Modeled Habitat within the BSA, however there is PCCP Modeled Habitat within 1,640 feet of the BSA.

4.7 Critical Habitat or Essential Fish Habitat

There is no designated critical habitat mapped within the BSA (USFWS 2024b).

Based on the literature review, anadromous fish critical habitat for steelhead (California Central Valley Distinct Population Segment) and Essential Fish Habitat for chinook salmon has the potential to occur in the *Lincoln, California* 7.5-minute quadrangle (NOAA 2022). However, there is no habitat for fish within the BSA. Therefore, there is no Essential Fish Habitat present within the BSA.

4.8 Wildlife Movement Corridors and Nursery Sites

The Essential Connectivity Areas map identifies larger, relatively natural habitat blocks that support native biodiversity and areas essential for connectivity between them. The BSA does not fall within an Essential Habitat Connectivity area (CDFW 2024a), is not a small natural area that could support ecological value (CDFW 2024b), and is not a natural habitat block (CDFW 2024c).

For the purposes of this analysis, nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries or bat maternity roosts. This data is available through CDFW's BIOS database or as occurrence records in the CNDDDB and is supplemented with the results of the site reconnaissance. No nursery sites have been documented within the BSA (CDFW 2024d) and none were observed or expected to occur.

5.0 RECOMMENDATIONS

This section summarizes recommended measures to avoid or minimize potential impacts to biological resources from the Proposed Project. Applicable conditions for Project PCCP Covered Activities are identified in the "Master Conditions on Covered Activities Checklist" (Appendix D) and the CARP Best Management Practices (Appendix E). Potential project impacts have not been finalized at this time, so these recommended measures are subject to change.

The PCCP includes conditions that must be implemented for Covered Activities. These conditions are grouped into the following categories: (1) general, (2) natural community, (3) stream system, (4) rural, (5) public project, (6) species, and (7) reserve management conditions. The PCCP also includes conditions that are required for activities that may affect Covered Species or where potential for take can be avoided or reduced. The Project shall comply with the following PCCP Conditions as the mechanism for avoiding, minimizing, and mitigating for the Proposed Project impacts in accordance with the PCCP.

5.1 General Recommendations and Best Management Practices

The Project applicant shall implement erosion control measures and Best Management Practices to reduce the potential for sediment or pollutants. Measures may include the following:

- Comply with the general conditions outlined in PCCP Section 6.3.1, conditions of approval in CARP Section 7, and best management practices in CARP Appendix C (Appendix E).
- To the extent feasible, implement erosion control measures and Best Management Practices to reduce the potential for sediment or pollutants within the BSA. Measures may include flagging of work areas, erosion control native seed mixtures, removal of trash, refueling in upland areas only and use of appropriate secondary containment, and a mandatory Worker Environmental Awareness Program for all contractors, work crews, and any onsite personnel.

5.2 Special-Status Species

5.2.1 Crotch Bumble Bee

The BSA contains suitable habitat for Crotch's bumble bee. Project implementation could result in impacts to Crotch's bumble bee if present.

The following measures are recommended to minimize potential impacts to Crotch's bumble bee:

- If the Crotch bumble bee is no longer a Candidate or formally Listed species under the California ESA at the time ground-disturbing activities occur, then no additional protection measures are required.
- If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species and ground-disturbing activities are scheduled to begin between February 1 and October 31, preconstruction surveys shall be conducted by a qualified biologist. Based on CDFW's *Survey Considerations for CESA Candidate Bumble Bee Species* (CDFW 2023b), it is recommended that

three Crotch bumble bee surveys be conducted at 2-to-4-week intervals during the colony active period (April-August) if possible.

- If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take, and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season (October 31) and/or once the qualified biologist deems the nesting colony is no longer active.
- If initial grading is phased or delayed for any reason, preconstruction surveys will be repeated prior to ground-disturbing activities if nesting habitat is still present or has re-established and will be affected.

5.2.2 Nesting Birds (Including Raptors)

The BSA and its immediate vicinity contains potential habitat for three PCCP Covered birds and a variety of other birds protected under the MBTA and the California Fish and Game Code. The following measure is recommended to avoid or minimize potential impacts to special-status and other protected birds:

5.2.2.1 California Black Rail

The Project applicant shall comply with PCCP Species Condition 2, California Black Rail (PCCP Section 6.3.5.7) regarding avoidance and minimization of impacts to California black rail.

5.2.2.2 Swainson's Hawk

The Project applicant shall comply with PCCP Species Condition 1, Swainson's Hawk (PCCP Section 6.3.5.6) regarding avoidance and minimization of impacts to Swainson's hawk.

5.2.2.3 Tricolored Blackbird

The Project applicant shall comply with PCCP Species Condition 4, Tricolored Blackbird (PCCP Section 6.3.5.9) regarding avoidance and minimization of impacts to tricolored blackbird.

5.2.2.4 Migratory Bird Treaty Act-Protected Birds

- A preconstruction nesting bird survey shall be conducted within 14 days prior to the commencement of Project-related activities to identify active nests that could be impacted by construction.

- The preconstruction nesting bird survey shall include accessible areas within 100 feet of the Project boundaries, including any temporary disturbance areas. For raptors, the preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundary.
- If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with the CDFW, shall establish a buffer distance. The buffer shall be maintained until the nestlings have fledged (e.g., are capable of flight and become independent of the nest), to be determined by a qualified biologist. The avoidance buffer can be removed, and no further measures are necessary once the young have fledged or the nest is no longer occupied, as determined by a qualified biologist.

5.3 Placer County Protected Trees

As currently proposed, there are no anticipated impacts to Placer County protected trees. If the Project proposes to impact any protected trees, tree impacts will be mitigated through payment of land conversion and special habitat conversion fees under the PCCP.

5.4 Mitigation Requirements

As currently proposed, there are no anticipated mitigation requirements because the entire BSA is made up of developed land. Mitigation requirements for this Project would be expected if new ground disturbance occurs or if the proposed PCCP Landcover revisions (Figure 4) are not accepted by the PCCP. Fees associated with mitigation are outlined in Chapter 9 of the PCCP.

5.4.1 Land Conversion Mitigation, Placer County Conservation Program General Condition 3

PCCP General Condition 3 states that “Covered Activities that would result in permanent conversion of natural land cover must pay fees or otherwise contribute to establishing the Reserve System and are subject to the maximum extent of take proposed under the Plan.” If the Project proposes any new ground disturbance, based on the PCCP Land Conversion Fee Schedule, the Project meets the criteria of Land Conversion Fee.

5.4.2 Stream System Condition 2, Stream System Mitigation: Restoration

PCCP Stream System Condition 2 states that “where Covered Activities result in the permanent or temporary impacts on the Stream System, regardless of the community or constituent habitat type affected, effects shall be mitigated by appropriate restoration or enhancement.”

Pending PCCP approval to revise the landcover, the PCCP Stream System within the BSA occurs within the Urban/Suburban land cover type. Pending final Project design and PCCP approval, due to the previous development, impacts to the PCCP Stream System in this area may not be subject to Special Habitat Fee Schedule 4f Stream System Encroachment.

If the Project proposes new ground disturbance within the PCCP Stream System, the Special Habitat Fee Schedule 4f Stream System Encroachment will apply to the Project.

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LIST OF APPENDICES

Appendix A – Results of Database Queries

Appendix B – Representative Photographs

Appendix C – Plant Species Observed

Appendix D – Master Conditions on Covered Activities Checklist

Appendix E – CARP Best Management Practices



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (Camp Far West (3912113) OR Wolf (3912112) OR Roseville (3812173) OR Rocklin (3812172) OR Lincoln (3812183) OR Gold Hill (3812182) OR Pleasant Grove (3812174) OR Sheridan (3812184) OR Wheatland (3912114))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABF02020	<i>Spea hammondi</i> western spadefoot	Proposed Threatened	None	G2G3	S3S4	SSC
ABNGA04010	<i>Ardea herodias</i> great blue heron	None	None	G5	S4	
ABNKC01010	<i>Pandion haliaetus</i> osprey	None	None	G5	S4	WL
ABNKC06010	<i>Elanus leucurus</i> white-tailed kite	None	None	G5	S3S4	FP
ABNKC11011	<i>Circus hudsonius</i> northern harrier	None	None	G5	S3	SSC
ABNKC19070	<i>Buteo swainsoni</i> Swainson's hawk	None	Threatened	G5	S4	
ABNME03041	<i>Lateralus jamaicensis coturniculus</i> California black rail	None	Threatened	G3T1	S2	FP
ABNSB10010	<i>Athene cunicularia</i> burrowing owl	None	None	G4	S2	SSC
ABPAU01010	<i>Progne subis</i> purple martin	None	None	G5	S3	SSC
ABPAU08010	<i>Riparia riparia</i> bank swallow	None	Threatened	G5	S3	
ABPBX03010	<i>Setophaga petechia</i> yellow warbler	None	None	G5	S3	SSC
ABPBX24010	<i>Icteria virens</i> yellow-breasted chat	None	None	G5	S4	SSC
ABPBXA0020	<i>Ammodramus savannarum</i> grasshopper sparrow	None	None	G5	S3	SSC
ABPBXA3013	<i>Melospiza melodia</i> pop. 1 song sparrow ("Modesto" population)	None	None	G5T3?Q	S3?	SSC
ABPBXB0020	<i>Agelaius tricolor</i> tricolored blackbird	None	Threatened	G1G2	S2	SSC
AFCAA01031	<i>Acipenser medirostris</i> pop. 1 green sturgeon - southern DPS	Threatened	None	G2T1	S1	SSC
AFCHA0209K	<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	Threatened	None	G5T2Q	S2	SSC
AMACC08010	<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None	None	G4	S2	SSC
AMACC10010	<i>Antrozous pallidus</i> pallid bat	None	None	G4	S3	SSC



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ARAAD02031	<i>Actinemys marmorata</i> northwestern pond turtle	Proposed Threatened	None	G2	SNR	SSC
CTT44110CA	<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	None	None	G3	S3.1	
CTT44132CA	<i>Northern Volcanic Mud Flow Vernal Pool</i> Northern Volcanic Mud Flow Vernal Pool	None	None	G1	S1.1	
CTT45310CA	<i>Alkali Meadow</i> Alkali Meadow	None	None	G3	S2.1	
CTT45320CA	<i>Alkali Seep</i> Alkali Seep	None	None	G3	S2.1	
ICBRA03010	<i>Branchinecta conservatio</i> Conservancy fairy shrimp	Endangered	None	G2	S2	
ICBRA03030	<i>Branchinecta lynchi</i> vernal pool fairy shrimp	Threatened	None	G3	S3	
ICBRA06010	<i>Lindieriella occidentalis</i> California lindieriella	None	None	G2G3	S2S3	
ICBRA10010	<i>Lepidurus packardii</i> vernal pool tadpole shrimp	Endangered	None	G3	S3	
IICOL48011	<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	Threatened	None	G3T3	S3	
IICOL5V010	<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	None	None	G2?	S2?	
IIHYM24260	<i>Bombus pensylvanicus</i> American bumble bee	None	None	G3G4	S2	
IIHYM35210	<i>Andrena subapasta</i> An andrenid bee	None	None	G1G2	S1S2	
PDAST11061	<i>Balsamorhiza macrolepis</i> big-scale balsamroot	None	None	G2	S2	1B.2
PDAST1P090	<i>Calycadenia spicata</i> spicate calycadenia	None	None	G3?	S3	1B.3
PDCAM060C0	<i>Downingia pusilla</i> dwarf downingia	None	None	GU	S2	2B.2
PDCAM0C010	<i>Legenere limosa</i> legenere	None	None	G2	S2	1B.1
PDONA05053	<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	None	None	G4G5T4	S4	4.2
PDPLM0C0X1	<i>Navarretia myersii ssp. myersii</i> pincushion navarretia	None	None	G2T2	S2	1B.1
PDSCR0J0D1	<i>Chloropyron molle ssp. hispidum</i> hispid salty bird's-beak	None	None	G2T1	S1	1B.1
PDSCR0R060	<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	None	Endangered	G2	S2	1B.2



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PMJUN011L1	<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	None	None	G2T1	S1	1B.2
PMJUN011L2	<i>Juncus leiospermus</i> var. <i>leiospermus</i> Red Bluff dwarf rush	None	None	G2T2	S2	1B.1
PMLEM03020	<i>Wolffia brasiliensis</i> Brazilian watermeal	None	None	G5	S2	2B.3





Record Count: 43









[CNPS Rare Plant Inventory](#)





Search Results

19 matches found. Click on scientific name for details

Search Criteria: [9-Quad](#) include [3912113:3912112:3812173:3812172:3812183:3812182:3812174:3812184:3912114]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<i>Azolla microphylla</i>	Mexican mosquito fern	Azollaceae	annual/perennial herb	Aug	None	None	G5	S4	4.2		1994-01-01	No Photo Available
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
<i>Brodiaea rosea</i> ssp. <i>vallicola</i>	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
<i>Brodiaea sierrae</i>	Sierra foothills brodiaea	Themidaceae	perennial bulbiferous herb	May-Aug	None	None	G3	S3	4.3	Yes	2012-11-20	 © 2006 George W. Hartwell
<i>Calycadenia spicata</i>	spicate calycadenia	Asteraceae	annual herb	May-Sep	None	None	G3?	S3	1B.3		2023-04-05	 © 2023 Christopher Bronny
<i>Chloropyron molle</i> ssp. <i>hispidum</i>	hispid salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	None	None	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available

<u><i>Downingia</i></u> <u><i>pusilla</i></u>	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
<u><i>Fritillaria</i></u> <u><i>agrestis</i></u>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
<u><i>Gratiola</i></u> <u><i>heterosepala</i></u>	Boggs Lake hedge- hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
<u><i>Hibiscus</i></u> <u><i>lasiocarpus</i></u> var. <u><i>occidentalis</i></u>	woolly rose- mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
<u><i>Juncus</i></u> <u><i>leiospermus</i></u> var. <u><i>ahartii</i></u>	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984-01-01	 © 2004 Carol W. Witham
<u><i>Juncus</i></u> <u><i>leiospermus</i></u> var. <u><i>leiospermus</i></u>	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	None	None	G2T2	S2	1B.1	Yes	1974-01-01	 ©2016 Dylan Neubauer
<u><i>Legenere</i></u> <u><i>limosa</i></u>	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game
<u><i>Leptosiphon</i></u> <u><i>aureus</i></u>	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-01-01	 © 2007 Len Blumin

<u><i>Lilium</i></u> <u><i>humboldtii</i></u> <u>ssp.</u> <u><i>humboldtii</i></u>	Humboldt lily	Liliaceae	perennial bulbiferous herb	May- Jul(Aug)	None	None	G4T3	S3	4.2	Yes	1994- 01-01	 © 2008 Sierra Pacific Industries
<u><i>Navarretia</i></u> <u><i>myersii</i></u> ssp. <u><i>myersii</i></u>	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994- 01-01	 © 2020 Leigh Johnson
<u><i>Viburnum</i></u> <u><i>ellipticum</i></u>	oval-leaved viburnum	Viburnaceae	perennial deciduous shrub	May-Jun	None	None	G4G5	S3	2B.3		1974- 01-01	 © 2006 Tom Engstrom
<u><i>Wolffia</i></u> <u><i>brasiliensis</i></u>	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr-Dec	None	None	G5	S2	2B.3		2001- 01-01	 © 2021 Scot Loring

Showing 1 to 19 of 19 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 28 June 2024].

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Placer County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Reptiles

NAME

STATUS

Northwestern Pond Turtle *Actinemys marmorata*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1111>

Amphibians

NAME

STATUS

Western Spadefoot *Spea hammondi*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5425>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Valley Elderberry Longhorn Beetle *Desmocerus californicus*

Threatened

dimorphus

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8246>

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2246>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below.

Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (●)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

Belding's Savannah Sparrow *Passerculus sandwichensis beldingi*

Breeds Apr 1 to Aug 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8>

Black Tern *Chlidonias niger surinamensis*

Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3093>

Bullock's Oriole *Icterus bullockii*

Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe *Aechmophorus clarkii*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat *Geothlypis trichas sinuosa*

Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

<p>Northern Harrier <i>Circus hudsonius</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/8350</p>	Breeds Apr 1 to Sep 15
<p>Nuttall's Woodpecker <i>Dryobates nuttallii</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Santa Barbara Song Sparrow <i>Melospiza melodia graminea</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/5513</p>	Breeds Mar 1 to Sep 5
<p>Short-billed Dowitcher <i>Limnodromus griseus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>Tricolored Blackbird <i>Agelaius tricolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Western Grebe <i>aechmophorus occidentalis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/6743</p>	Breeds Jun 1 to Aug 31
<p>Western Screech-owl <i>Megascops kennicottii cardonensis</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 1 to Jun 30
<p>Willet <i>Tringa semipalmata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

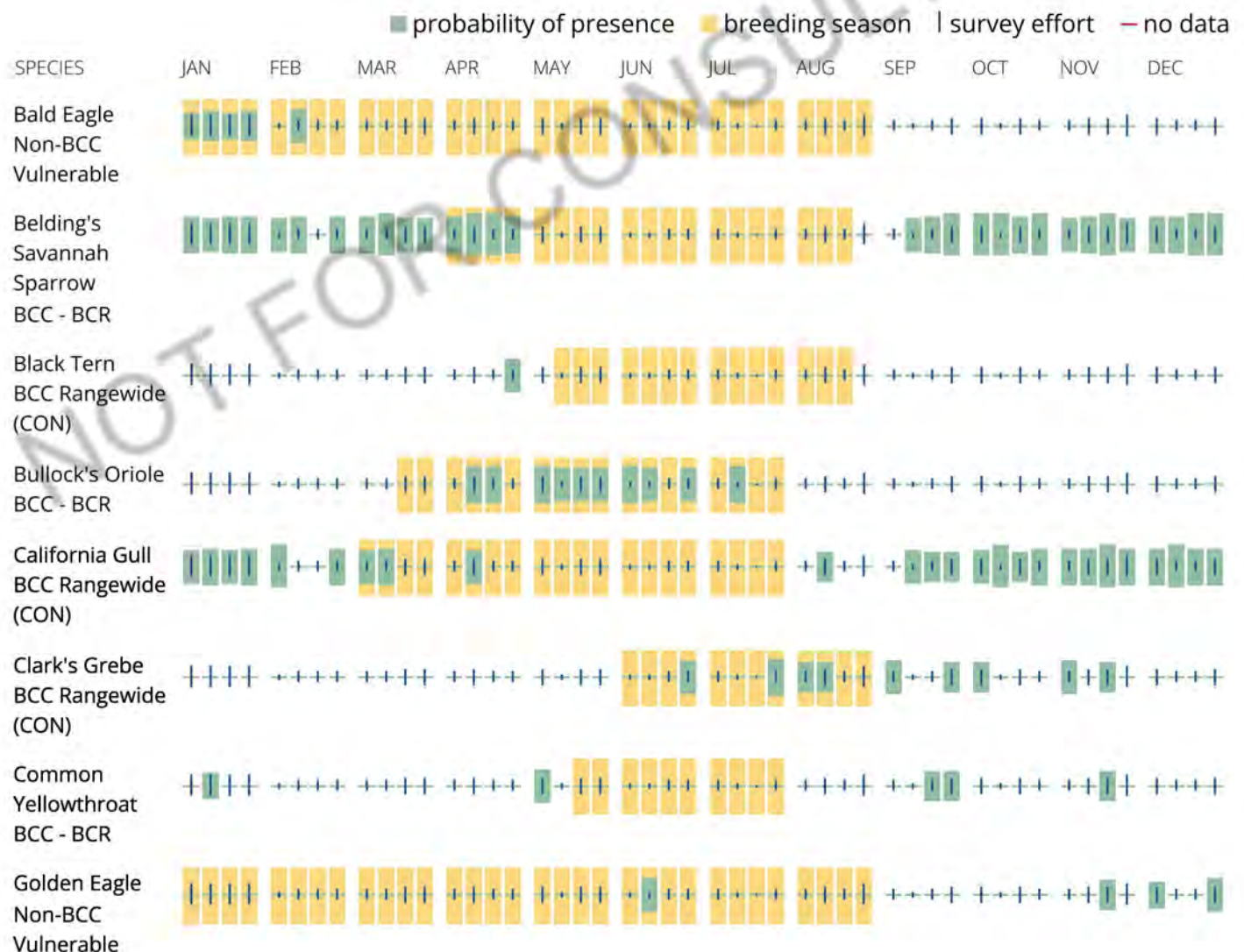
To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

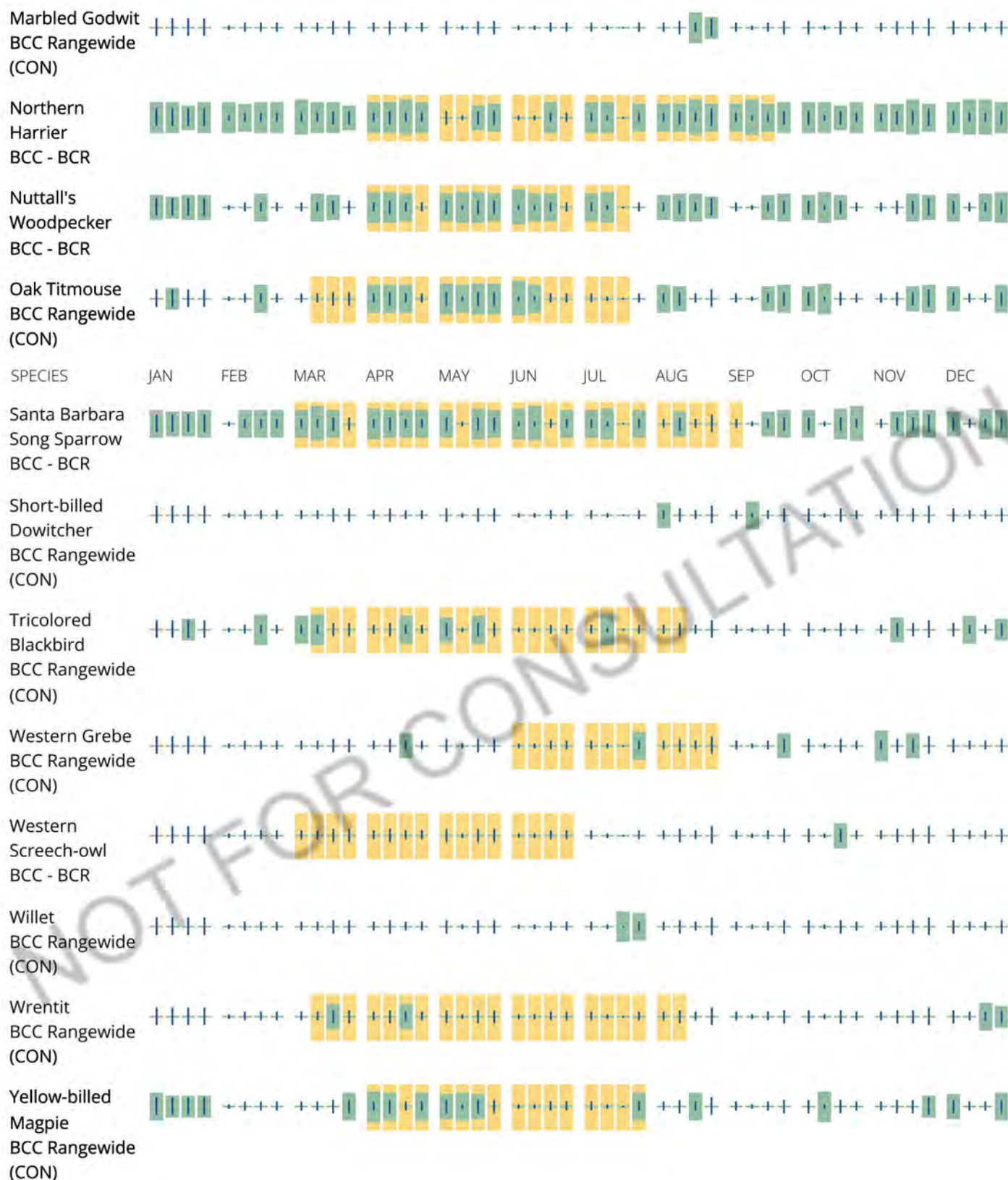
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

A week is marked as having no data if there were no survey events for that week.

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in

offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Quad Name **Lincoln**
Quad Number **38121-H3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - **X**
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

APPENDIX B

Representative Photographs



Photo 1. Overview of Biological Study Area, Facing Southwest.
Photo Taken August 1, 2024.



Photo 2. Overview of Biological Study Area, Facing Southwest.
Photo Taken August 1, 2024.

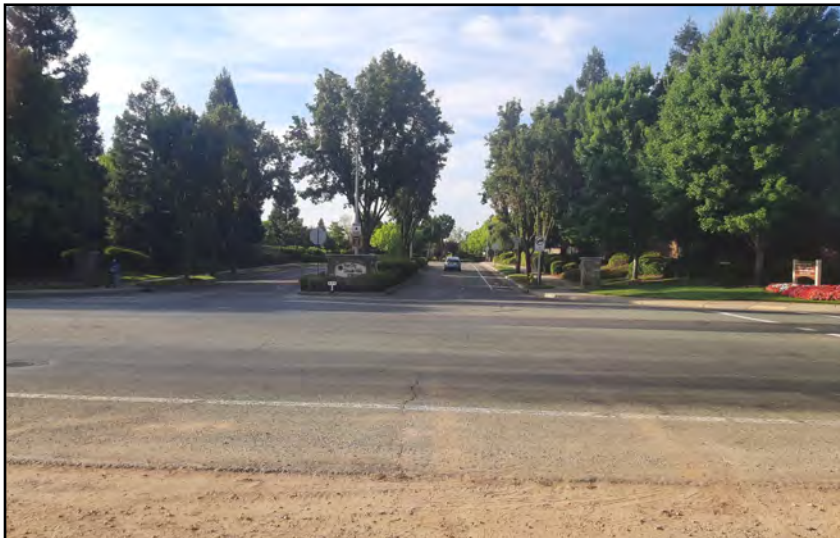


Photo 2. Intersection of Ferrari Ranch Road and Sun City Boulevard, Facing Southeast. Photo Taken August 1, 2024.



Photo 4. Intersection of Ferrari Ranch Road and Ingram Parkway, Facing South. Photo Taken August 1, 2024.



Photo 5. Auburn Ravine Located outside of the Biological Study Area, Facing West. Photo Taken August 1, 2024.



Photo 7. Unidentified Cropland PCCP Landcover Proposed to be Redefined to Urban/Suburban, Facing Southwest. Photo Taken August 1, 2024.



Photo 6. Annual Grassland PCCP Landcover Proposed to be Redefined to Urban/Suburban, Facing Southeast. Photo Taken August 1, 2024.



Photo 8. Annual Grassland PCCP Landcover Proposed to be Redefined to Urban/Suburban, Facing Northeast. Photo Taken August 1, 2024.

APPENDIX C

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
AMARYLLIDACEAE	AMARYLLIS FAMILY
<i>Agapanthus africanus*</i>	Lily of the Nile (cultivated)
ANACARDIACEAE	SUMAC FAMILY
<i>Pistacia chinensis*</i>	Chinese pistache
<i>Schinus terebinthifolius*</i>	Brazilian pepper tree
APIACEAE	CARROT FAMILY
<i>Daucus carota*</i>	Queen Anne's lace
APOCYNACEAE	DOGBANE FAMILY
<i>Catharanthus roseus*</i>	Madagascar periwinkle (cultivated)
<i>Nerium oleander*</i>	Oleander (cultivated)
ASPARAGACEAE	ASPARAGUS FAMILY
<i>Dasylirion wheeleri*</i>	Common sotol (cultivated)
ASPHODELACEAE	ASPHODELUS FAMILY
<i>Hemerocallis lilioasphodelus*</i>	Yellow daylily (cultivated)
ASTERACEAE	SUNFLOWER FAMILY
<i>Baccharis pilularis</i>	Coyote brush
<i>Centaurea solstitialis*</i>	Yellow star-thistle
<i>Chondrilla juncea*</i>	Skeleton weed
<i>Cichorium intybus*</i>	Chicory
<i>Dittrichia graveolens*</i>	Stinkwort
<i>Erigeron canadensis</i>	Canada horseweed
<i>Grindelia camporum</i>	Common gumplant
<i>Holocarpha virgata</i>	Narrow tarplant
<i>Hypochaeris radicata*</i>	Rough cat's-ear
<i>Lactuca serriola*</i>	Prickly lettuce
<i>Leontodon saxatilis*</i>	Hairy hawkbit
<i>Sonchus oleraceus*</i>	Common sowthistle
BERBERIDACEAE	BARBERRY FAMILY
<i>Nandina domestica*</i>	Sacred bamboo (cultivated)
BRASSICACEAE	MUSTARD FAMILY
<i>Hirschfeldia incana*</i>	Shortpod mustard
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
<i>Abelia sp.*</i>	Abelia (cultivated)

SCIENTIFIC NAME	COMMON NAME
CONVOLVULACEAE	MORNING-GLORY FAMILY
<i>Convolvulus arvensis</i> *	Field bindweed
CUPRESSACEAE	CYPRESS FAMILY
<i>Juniperus</i> sp.	Juniper (cultivated)
CYPERACEAE	SEDGE FAMILY
<i>Cyperus eragrostis</i>	Tall flatsedge
ERICACEAE	HEATH FAMILY
<i>Arctostaphylos</i> sp.	Creeping manzanita (cultivated)
EUPHORBIACEAE	SPURGE FAMILY
<i>Croton setiger</i>	Turkey mullein
<i>Euphorbia maculata</i> *	Spotted spurge
FABACEAE	LEGUME FAMILY
<i>Acmispon americanus</i>	Spanish clover
<i>Arachis</i> sp.*	Arachis
<i>Cercis canadensis</i> *	Eastern redbud (cultivated)
<i>Robinia pseudoacacia</i> *	Black locust (cultivated)
<i>Trifolium hirtum</i> *	Rose clover
<i>Trifolium incarnatum</i> *	Crimson clover
<i>Trifolium repens</i> *	White clover
FAGACEAE	OAK FAMILY
<i>Quercus wislizeni</i>	Interior live oak
GERANIACEAE	GERANIUM FAMILY
<i>Erodium botrys</i> *	Broadleaf filaree
LAMIACEAE	MINT FAMILY
<i>Rosmarinus officinalis</i> *	Rosemary (cultivated)
LYTHRACEAE	LOOSESTRIFE FAMILY
<i>Lagerstroemia indica</i> *	Crape myrtle (cultivated)
MAGNOLIACEAE	MAGNOLIA FAMILY
<i>Magnolia</i> sp.*	Magnolia (cultivated)
MYRTACEAE	MYRTLE FAMILY
<i>Callistemon</i> sp.*	Bottlebrush (cultivated)
ONAGRACEAE	EVENING PRIMROSE FAMILY
<i>Epilobium brachycarpum</i>	Panicked willow-herb

SCIENTIFIC NAME	COMMON NAME
PINACEAE	PINE FAMILY
<i>Cedrus deodara</i> *	Deodar cedar (cultivated)
PITTOSPORACEAE	PITTOSPORUM FAMILY
<i>Pittosporum tobira</i> *	Japanese cheesewood (cultivated)
PLANTAGINACEAE	PLANTAIN FAMILY
<i>Plantago lanceolata</i> *	English plantain
POACEAE	GRASS FAMILY
<i>Avena sp.</i> *	Wild oat
<i>Bromus diandrus</i> *	Ripgut brome
<i>Bromus hordeaceus</i> *	Soft brome
<i>Cynodon dactylon</i> *	Bermuda grass
<i>Elymus caput-medusae</i> *	Medusahead grass
<i>Festuca microstachys</i>	Small fescue
<i>Festuca myuros</i> *	Rat-tail fescue
<i>Festuca perennis</i> *	Italian ryegrass
<i>Hordeum murinum</i> *	Foxtail barley
<i>Sorghum halepense</i> *	Johnson grass
<i>Stipa pulchra</i>	Purple needle grass
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Rumex crispus</i> *	Curly dock
<i>Rumex pulcher</i> *	Fiddle dock
ROSACEAE	ROSE FAMILY
<i>Pyrus calleryana</i> *	Callery pear (cultivated)
<i>Rhamphiolepis indica</i> *	Indian hawthorn (cultivated)
SAPINDACEAE	SOAPBERRY FAMILY
<i>Acer negundo</i>	Box-elder (cultivated)
<i>Acer sp.</i> *	Maple (cultivated)
SAPINDACEAE	SOAPBERRY FAMILY
<i>Aesculus californica</i>	California buckeye
TAXODIACEAE	BALD CYPRESS FAMILY
<i>Sequoia sempervirens</i>	Coast redwood (cultivated)

SCIENTIFIC NAME	COMMON NAME
ZYGOPHYLLACEAE	CALTROP FAMILY
Tribulus terrestris*	Puncture vine

Notes: * = non-native species

Master Conditions on Covered Activities Checklist



Placer County Conservation Program Master Conditions on Covered Activities Checklist

(Certain conditions apply to all projects and have already been marked with a 'Yes')

Measure	Applies to Project	How Condition is/will be Met
General Conditions (refer to User's Guide Chapter 7.2 and PCCP Chapter 6.3)		
General Condition 1, Watershed Hydrology and Water Quality (PCCP 6.3.1.1) General Condition 1 applies to project applicants if the project disturbs 1 or more acres of soil or whose project disturbs less than 1 acre, but the project is part of a larger common plan of development that in total disturbs 1 or more acres, then the applicant must obtain coverage under the State Water Board General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ).		
General Condition 2, Conservation Lands: Development Interface Design Requirements (PCCP 6.3.1.2) General Condition 2 applies when new infrastructure projects, and urban and rural development occur in or adjacent to Plan reserves, mitigation and conservation banks, and any other property protected by an in-perpetuity conservation mechanism for natural lands management. The applicant will incorporate design requirements to minimize the indirect effects of development on these types of conservation lands in the permit area.		
General Condition 3, Land Conversion (PCCP 6.3.1.3) General Condition 3 applies to project applicants whose projects result in permanent natural land cover conversion and therefore must pay land conversion fees or contribute to the Reserve System. This condition also includes criteria for permanent effect avoidance in the PFG and for low density rural development.	Yes	
General Condition 4, Temporary Effects (PCCP 6.3.1.4) General Condition 4 applies when the project results in temporary effects on natural land cover and the applicant wishes to apply temporary effect fees (lower than the fees applied under General Condition 3). The applicant must describe how an area qualifies for the temporary effect fee.		
General Condition 5, Conduct Worker Training (PCCP 6.3.1.5) General Condition 5 applies to projects for which any avoidance and minimization measures must be conducted during construction.		
Conditions to Avoid and Minimize Effects on Specific Natural Communities (PCCP Section 6.3.2)		
Community Condition 1, Wetland Avoidance and Minimization (Vernal Pool and Aquatic/Wetland Complex) (PCCP Section 6.3.2.1)		
Community Condition 1.1 Avoidance of Vernal Pool Complex Constituent Habitat Community Condition 1.1 requires projects to first evaluate whether avoidance of effects on vernal pool complex constituent habitat (also termed vernal pool wetlands) is advisable and feasible, as described below, and then mitigate for unavoidable effects to vernal pool wetlands, generally through payment of fees. Vernal pool wetlands include vernal pools, seasonal wetland in vernal pool complex, and seasonal swales (referred to in the HCP/NCCP as vernal pool constituent habitats). Applicant must identify AMMs specific to the project.		

Measure	Applies to Project	How Condition is/will be Met
Community Condition 1.2 Avoidance of Aquatic/Wetland Complex Habitat Community Condition 1.2 requires projects to first evaluate whether avoidance of effects on aquatic/wetland complex constituent habitat (also termed non-vernal pool wetlands) is advisable and feasible, as described below, and then mitigate for unavoidable effects to non-vernal pool wetlands, generally through payment of fees. Non-vernal pool wetlands include fresh emergent marsh, lacustrine, and non-vernal pool seasonal wetlands. This category includes flowing springs and long-duration seeps (associated with groundwater seepage) not located inside the Stream System. Applicant must identify AMMs specific to the project.		
Community Condition 1.3 Aquatic/Wetland Complex Impact Minimization Measures Community Condition 1.3, requires projects with temporary effects on non-vernal pool wetlands or their buffers to implement Community Condition 1.3. If the project results in impacts on non-vernal pool wetlands or their buffers and the applicant cannot comply with Community Condition 1.3, then the impacts will be treated as permanent and addressed under Community Conditions 1.1 or 1.2. Applicant must identify Wetland Impact Minimization Criteria to qualify for temporary effects.		
Community Condition 1.4 Salvage of Vernal Pool Constituent Habitat Community Condition 1.4 applies to projects that impact vernal pool constituent habitat. The applicant will coordinate with the PCA to grant adequate and timely access for potential salvage of wetland soil and biota as deemed appropriate.		
Community Condition 2, Riverine and Riparian Avoidance and Minimization (PCCP Section 6.3.2.2)		
Community Condition 2.1 Riverine and Riparian Avoidance and Minimization Community Condition 2.1, focusing specifically on riverine and riparian constituent habitat components and the 50-foot buffer off the edge of riparian vegetation associated with the Riverine/Riparian Complex community, is supplemental to Stream System Condition 1, Stream System Avoidance and Minimization.		
Community Condition 2.2 Minimize Riverine and Riparian Effects Community Condition 2.2 requires projects that cannot avoid riverine/riparian effects to minimize these effects. Projects with unavoidable impacts to riverine/riparian habitat will be required to adhere to minimization measures described in PCCP Table 6-1. In-stream and Stream System BMPs. Applicant must identify BMPs/AMMs specific to the project.		
Community Condition 2.3 Riverine and Riparian Restoration Community Condition 2.3 requires projects to contribute to restoration as mitigation to compensate for loss of riverine or riparian constituent habitat either by onsite replacement and restoration and/or payment of additional fees to the PCA so that the restoration actions are undertaken by PCA offsite.		

Measure	Applies to Project	How Condition is/will be Met
Community Condition 3, Valley Oak Woodland Avoidance, Minimization, and Mitigation (PCCP Section 6.3.2.3)		
Community Condition 3.1 Valley Oak Woodland Avoidance and Minimization Projects avoiding impacts to > 1 acre of valley oak woodland may consider that valley oak stand avoided and therefore the area may not be subject to land conversion fees. Community Condition 3.1 establishes the circumstances under which valley oak woodlands can be considered avoided under the PCCP.		
Community Condition 3.2 Valley Oak Woodland and Individual Valley Oak Trees Restoration Projects must compensate for loss of Valley Oak Woodland natural community, and individual valley oak trees by paying the Plan land conversion fee.		
Conditions to Avoid, Minimize, and Mitigate Effects on the Stream System (PCCP Chapter Section 6.3.3)		
Stream System Condition 1, Stream System Avoidance and Minimization Stream System Condition 1 requires design and implementation of projects in such a way as to avoid and minimize adverse effects to the Stream System. Applicants can avoid or minimize Stream System impacts to reduce fees.		
Stream System Condition 2, Stream System Mitigation: Restoration Stream System Condition 2 applies to all projects with unavoidable effects on the Stream System. Where the project results in permanent or temporary impacts on the Stream System, effects shall be mitigated by appropriate restoration or enhancement.		
Conditions to Minimize Effects on Covered Species (PCCP Section 6.3.5)		
Species Condition 1, Swainson's Hawk (PCCP Section 6.3.5.6)		
<i>SWHA 1 Surveys: Conduct planning-level surveys within modeled habitat in the Valley of the project site and within 1,325 feet of project site well in advance of project implementation. If the project cannot be designed to avoid active SWHA nest trees and the construction must occur during the nesting season (approximately February 1 to September 15), a preconstruction survey must be conducted no more than 15 days prior to ground disturbance.</i>		
<i>SWHA 2 Applicable Measure: During the nesting season, ground-disturbing activities within 1,320 feet of occupied nests or nests under construction will be prohibited. See PCCP Section 6.3.5.6.2 for further details on minimizing disturbance and buffer waivers.</i>		
<i>SWHA 3 Applicable Measure: Active (within the last 5 years) SWHA nest trees on a project site will not be removed during the nesting season.</i>		
<i>SWHA 4 Construction Monitoring: If an active nest is present within the project site or 1,320 feet of the project site, construction monitoring will be conducted by a qualified biologist and will focus on ensuring that activities do not occur within the buffer zone and that effects on SWHA are minimized.</i>		
Species Condition 2, California Black Rail (PCCP Section 6.3.5.7)		
<i>CA Black Rail 1 Surveys: If a project/Covered Activity is within 500 feet of the perimeter of a fresh emergent wetland greater than 0.2 acre in size, a minimum of 4 surveys initiated between March 15 and May 31 and completed by June/early July must be</i>		

Measure	Applies to Project	How Condition is/will be Met
conducted the year in which ground disturbance activities commence.		
CA Black Rail 2 Applicable Measure: If the wetlands are occupied by CA black rail and the PCA does not grant take coverage, a buffer around the avoided wetland will be demarcated 500 feet from the outside perimeter of the occupied wetland and an exclusion fence installed.		
CA Black Rail 3 Applicable Measure: If the PCA grants take coverage, clearing the habitat (or dewatering) will occur between September 15 and February 1 (outside the breeding season). If the project will not convert all of the wetland habitat, a buffer around the avoided wetland will be demarcated with exclusion fencing as a no-work area.		
CA Black Rail 4 Construction Monitoring: If a wetland is occupied by CA black rail, construction monitoring will be conducted by a qualified biologist to ensure that no Covered Activities occur within the buffer zone established around the occupied wetland, or if take allowance is granted outside of the breeding season, to ensure that adverse effects are minimized.		
Species Condition 3, Western Burrowing Owl (PCCP Section 6.3.5.8)		
BUOW 1 Surveys: Conduct preconstruction surveys within modeled habitat in the Valley, or as determined by a qualified biologist, of the project site and within a 250-foot accessible radius of project site. Two surveys must be conducted within 15 days prior to ground disturbance to establish the presence or absence of burrowing owls.		
BUOW 2 Applicable Measure: If BUOW or evidence of presence is found during the breeding season (approximately February 1 – August 31), the applicant will avoid all nests that could be disturbed and establish a 250-foot non-disturbance buffer zone around nests. The buffer zone will be flagged or otherwise clearly marked.		
BUOW 3 Applicable Measure: If BUOW or evidence of presence is found during the non-breeding season (approximately September 1 – January 31), the applicant will establish a 160-foot non-disturbance buffer zone around active burrows. The buffer zone will be flagged or otherwise clearly marked.		
BUOW 4 Applicable Measure: During the non-breeding season only, if a project cannot avoid occupied burrows after all alternative avoidance and minimization measures are exhausted, as confirmed by the Wildlife Agencies, a qualified biologist may passively exclude birds from those burrows. A burrowing owl exclusion plan must be developed by a qualified biologist consistent with the most recent guidelines from the Wildlife Agencies and submitted to and approved by the PCA and Wildlife Agencies.		
BUOW 5 Construction Monitoring: If a BUOW nest or active burrow is present within the project site, construction monitoring will be conducted by a qualified biologist and will focus on ensuring that activities do not occur within the buffer zone and that effects on BUOW are minimized.		
Species Condition 4, Tricolored Blackbird (PCCP Section 6.3.5.9)		
Tricolored Blackbird 1 Surveys: Preconstruction planning-level surveys for nest colony sites must be conducted by a qualified biologist if the PCA-provided map indicates an active colony site occurs on the project site or within 1,300 feet of a colony site as well as those project sites located below 300 feet in elevation within modeled habitat. Surveys should be conducted at least twice with at least month between surveys during the nesting		

Measure	Applies to Project	How Condition is/will be Met
<i>season 1 year prior to initial ground disturbance if feasible, and the year of ground disturbing for the Covered Activity (required). If Covered Activities will occur in the project work area during the nesting season, three surveys shall be conducted within 15 days prior to the Covered Activity, with one of the surveys occurring within 5 days prior to the start of the Covered Activity.</i>		
<i>Tricolored Blackbird 2 Surveys: If an active colony site is within 3 miles of the project site, a qualified biologist will conduct two surveys of foraging habitat within the project site and within a 1,300-foot radius around the project site to determine whether foraging habitat is being actively used by foraging tricolored blackbirds. The surveys will be conducted approximately one week apart, with the second survey occurring no more than 5 calendar days prior to ground-disturbing activities.</i>		
<i>Tricolored Blackbird 3 Applicable Measures: If a tricolored blackbird nesting colony is found, avoidance and minimization measures shall be applied as outlined in PCCP Section 6.3.5.9.2. These AMMs include prohibiting work during the nesting season (March 15 – July 31, or until chicks have fledged or the colony abandoned on its own) and establishing buffers.</i>		
<i>Tricolored Blackbird 4 Applicable Measures: If construction activity or other Covered Activities disturb foraging tricolored blackbirds, as determined by a qualified biologist, avoidance and minimization measures shall be applied as outlined in PCCP Section 6.3.5.9.2. These AMMs include prohibiting work during the nesting season (March 15 – July 31, or until chicks have fledged or the colony abandoned on its own) and establishing buffers.</i>		
<i>Tricolored Blackbird 5 Construction Monitoring: If a tricolored blackbird nesting colony is present within the project site, construction monitoring will be conducted by a qualified biologist and will focus on ensuring that activities do no occur within the buffer zone and that effects on tricolored blackbird nesting are minimized.</i>		
<i>Tricolored Blackbird 6 Construction Monitoring: If actively used foraging habitat is present within the project site, construction monitoring will be conducted by a qualified biologist and will focus on ensuring that activities do no occur within the buffer zone and that effects on tricolored blackbird foraging are minimized.</i>		
Species Condition 5, Giant Garter Snake (PCCP Section 6.3.5.10)		
<i>If certain communities are present on or adjacent to a project site and within the geographic range of GGS habitat in the Plan Area (see PCCP Appendix D, Species Accounts), a qualified biologist will conduct a survey to assess whether the communities provide suitable habitat for GGS.</i>		
<i>GGS 1 Applicable Measures: To avoid effects on GGS aquatic habitat, the project applicant will conduct no in-water/in-channel activity and will maintain a permanent 200-foot non-disturbance buffer from the outer edge of suitable habitat. If the project cannot avoid effects of construction activities, the project applicant will implement AMMs outlined in PCCP Section 6.3.5.10.2.</i>		
Species Condition 6, California Red-legged Frog, Foothill Yellow-legged Frog, and Western Pond Turtle (PCCP Section 6.3.5.11) No specific measures--refer to Section 6.3.5.11 for list of conditions on covered activities that apply to these species		
Species Condition 7, Central Valley Steelhead and Central Valley Fall-/Late Fall-Run Chinook Salmon (Salmonids) (PCCP Section 6.3.5.12)		

Measure	Applies to Project	How Condition is/will be Met
Identify which Guidelines for Salmonid Passage at Stream Crossings apply for the project. Salmonid 1: Fish Passage Design Salmonid 2: Fish Passage During Construction Salmonid 3: Pre-construction Relocation Salmonid 4: Spawning Gravel Cleaning Salmonid 5: Use of Riprap When Necessary		
Invertebrate Species Conditions		
Species Condition 8, Valley Elderberry Longhorn Beetle (PCCP Section 6.3.5.13) Planning surveys for VELB are required for Covered Activities within modeled habitat. The project applicant will apply avoidance and minimization measures as specified in the USFWS's Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999) or current Wildlife Agency approved avoidance and minimization procedure. When take is authorized, the project applicant must coordinate with the PCA to provide transplants and seedlings/cuttings for planting in suitable habitat on the Reserve System.		
Species Condition 9, Conservancy Fairy Shrimp (PCCP Section 6.3.5.14) Conservancy Fairy Shrimp 1: Surveys for Conservancy fairy shrimp are required if vernal pools and seasonal wetlands occur on the project site and if the project site falls within the survey boundary depicted in PCCP Figure 5-7. This area is limited, Conservancy Fairy Shrimp 2 – 5 apply if species occurrences are identified during the survey. Please see PCCP Sections 6.3.5.14.2 – 6.3.5.14.3		
Species Condition 10, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp (PCCP Section 6.3.5.15) Surveys are required in vernal pools that will be lost to Covered Activities to determine the occupancy rate of vernal pool fairy shrimp and vernal pool tadpole shrimp in these wetlands. The Occupancy Rate Standards will be determined after at least 37 wetted acres of vernal pools have been surveyed, known as the Initial Survey Phase.		
<i>Vernal Pool Fairy Shrimp and Tadpole Shrimp 1: Wet season surveys will be conducted for vernal pool fairy shrimp and vernal pool tadpole shrimp in vernal pools, as determined by wetland delineation during the Initial Survey Phase. The PCA can advise applicants if the Initial Survey Phase applies to their project.</i>		

CARP Condition	Applies to Project	How Condition is/will be Met
CARP Condition 1a: All work within the Plan Area that impacts Aquatic Resources of Placer County shall be completed according to the plans and documents included in the PCCP/CARP application, Standard USACE 404 permit if applicable, Water Quality Certification, or, if applicable, WDR. All changes to those plans shall be reported to the Local Jurisdiction. Minor changes may require an amendment to the CARP Authorization, Water Quality Certification, or, if applicable, WDR. Substantial changes may render the CARP authorization, USACE permit, Water Quality Certification, if applicable, WDR, void, and a new application may be required.		

CARP Condition	Applies to Project	How Condition is/will be Met
CARP Condition 1b: All deviations from plans and documents provided with the Application and approved by the Local Jurisdiction must be reported to the Local Jurisdiction immediately.	Yes	
CARP Condition 2: Any construction within the Stream System shall be implemented in a way to avoid and minimize impacts to vegetation outside the construction area. All preserved wetlands, other Aquatic Resources of Placer County, and the Stream Zone shall be protected with bright construction fencing. Temporary fencing shall be removed immediately upon completion of the project.		
CARP Condition 3: Erosion control measures shall be specified as part of the CARP application, and the application is not complete without them. All erosion control specified in the permit application shall be in place and functional before the beginning of the rainy season and shall remain in place until the end of the season. Site supervisors shall be aware of weather forecasts year-round and shall be prepared to establish erosion control on short notice for unusual rain events. Erosion control features shall be inspected and maintained after each rainfall period. Maintenance includes, but is not limited to, removal of accumulated silt and the replacement of damaged barriers and other features.	Yes	
CARP Condition 4: All required setbacks shall be implemented according to the HCP/NCCP Condition 4 (HCP/NCCP Section 6.1.2).	Yes	
CARP Condition 5: All work in aquatic resources within the Stream System shall be restricted to periods of low flow and dry weather between April 15 and October 15, unless otherwise permitted by Local Jurisdictions and approved by the appropriate State and federal regulatory agency. Work within aquatic resources in the Stream System outside of the specified periods may be permitted under some circumstances. The Applicant must provide the Local Jurisdiction with the following information: a) the extent of work already completed; b) specific details about the work yet to be completed; and c) an estimate of the time needed to complete the work in the Stream System.		
CARP Condition 6: Weather forecasts should be monitored, and erosion control established before all storm events.	Yes	
CARP Condition 7: Following work in a stream channel, the low flow channel shall be returned to its natural state to the extent possible. The shape and gradient of the streambed shall be restored to the same gradient that existed before the work to the extent possible.		
CARP Condition 8: Except for site preparation for the installation and removal of dewatering structures, no excavation is allowed in flowing streams unless dredging WDRs are issued by the RWQCB. Detailed plans for dewatering must be part of the Application.		
CARP Condition 9: Temporary crossings as described in the Application shall be installed no earlier than April 15 and shall be removed no later than October 15, unless otherwise permitted by Local Agencies and approved by the appropriate State and federal regulatory agency. This work window could be modified at the discretion of the Local Jurisdiction and the CDFW.		
CARP Condition 10: No vehicles shall be allowed within the Stream System. If the project requires in channel work, necessary earth-moving and construction equipment shall	Yes	

CARP Condition	Applies to Project	How Condition is/will be Met
be allowed within the Stream System after the section of stream where work is performed is dewatered. The equipment and vehicles used in the Stream System shall be described in the Application.		
CARP Condition 11: Staging areas for equipment, materials, fuels, lubricants, and solvents shall be located outside the stream system, channel, and banks and away from all preserved aquatic resources. All stationary equipment operated within the Stream System must be positioned over drip-pans. Equipment entering the Stream System must be inspected daily for leaks that could introduce deleterious materials into aquatic resources. All discharges, unintentional or otherwise, shall be reported immediately to the Local Jurisdiction. The Local Jurisdiction shall then immediately notify the appropriate state and federal agencies.	Yes	
CARP Condition 12: Cement, concrete, washings, asphalt, paint, coating materials, oil, other petroleum products, and other materials that could be hazardous to aquatic life shall be prevented from reaching streams, lakes, or other water bodies. These materials shall be placed a minimum of 50 feet away from aquatic environments. All discharges, unintentional or otherwise, shall be reported immediately to the Local Jurisdiction. The Local Jurisdiction shall then immediately notify the appropriate state and federal agencies	Yes	
CARP Condition 13: During construction, no litter or construction debris shall be dumped into water bodies or other aquatic resources; nor shall it be placed in a location where it might be moved by wind or water into aquatic resources. All construction debris shall be removed from the site upon completion of the project.	Yes	
CARP Condition 14: Only herbicides registered with the California Department of Pesticide Regulation shall be used in streams, ponds, and lakes, and shall be applied in accordance with label instructions. A list of all pesticides that may be used in the project area shall be submitted to the Local Jurisdiction before use.	Yes	
CARP Condition 15: Before beginning construction, the project Applicant must have a valid CARP authorization or waiver notice. In order to obtain a permit, the Applicant must pay all mitigation fees or purchase appropriate credits from an agency-approved mitigation bank.		
CARP Condition 16: A copy of the CARP conditions and Water Quality Certification and WDRs shall be given to individuals responsible for activities on the site. Site personnel, (employees, contractors, and subcontractors) shall be adequately informed and trained to implement all permit, Water Quality Certification, and WDR conditions and shall have a copy of all permits available onsite at all times for review by site personnel and agencies.		
CARP Condition 17: Work shall not disturb active bird nests until young birds have fledged. To avoid impacts to nesting birds, any disturbance shall occur between September 1 and February 1 prior to the nesting season. Tree removal, earthmoving or other disturbance at other times is at the Local Jurisdiction's discretion and will require surveys by a qualified biologist to determine the absence of nesting birds prior to the activity.	Yes	
CARP Condition 18: All trees marked for removal within the Stream System must be shown on maps included with the Application. Native trees over five inches diameter at breast	Yes	

CARP Condition	Applies to Project	How Condition is/will be Met
height (DBH) shall not be removed without the consent of the Local Jurisdiction.		
CARP Condition 19: The Local Jurisdiction shall be notified immediately if threatened or endangered species that are not Covered Species are discovered during construction activities. The Local Jurisdiction shall suspend work and notify the USFWS, NMFS, and the CDFW for guidance.	Yes	
CARP Condition 20: Wildlife entering the construction site shall be allowed to leave the area unharmed or shall be flushed or herded humanely in a safe direction away from the site.	Yes	
CARP Condition 21: All pipe sections shall be capped or inspected for wildlife before being placed in a trench. Pipes within a trench shall be capped at the end of each day to prevent entry by wildlife, except for those pipes that are being used to divert stream flow.	Yes	
CARP Condition 22: At the end of each workday, all open trenches will be provided with a ramp of dirt or wood to allow trapped animals to escape.	Yes	
CARP Condition 23: If human remains or cultural artifacts are discovered during construction, the Applicant shall stop work and notify the Local Jurisdiction immediately. Work will not continue in the area until a qualified coroner and archaeologist have evaluated the remains, conducted a survey, prepared an assessment, and required consultations are completed.	Yes	
Lake and Streambed Alteration Agreement Conditions: Additional conditions may be required by CDFW if the Covered Activity is subject to a LSAA.		
Best Management Practices (BMPs) for the Western Placer County Aquatic Resource Program (CARP)		

Updated November 17, 2022

Best Management Practices (BMPs) for the Western Placer County Aquatic Resource Program (CARP)

I. Introduction

The purpose of this document is to define the Best Management Practices (BMPs) that will be required for all projects permitted through the County Aquatic Resource Program (CARP).

II. Definitions

Applicant. A private landowner, department or division of a Local Agency, or other party who submits an Application to the County for a CARP Authorization. The CARP document refers to the applicant or “project proponent” in the same sense.

Aquatic resources. Aquatic resources are “Aquatic Resources of Placer County”.

Aquatic Resources of Placer County. Aquatic Resources of Placer County include Waters of the U.S.; Waters of the State; Stream Systems, and constituent habitats for Aquatic/Wetland Complex, Vernal Pool Complex and Riverine/Riparian Complex within the Stream System and includes all definitions described in Section 3.3 of the CARP.

Bed-and-bank morphology. The shape of a stream channel that exhibits a clear channel and bank created by evidence of flowing water. Water may flow through upland swales during high rainfall events, but not with enough duration or force to create bed and bank morphology.

Best Management Practices (BMPs). BMPs are avoidance and minimization measures designed to reduce or avoid an adverse effect on a particular resource. BMPs described in this chapter were based on Permittees’ current practices.

California Department of Fish and Wildlife (CDFW). The agency that enforces Section 1600 et seq. of the Fish and Game Code, which authorizes and includes avoidance, minimization and mitigation measures for project activities that would substantially divert or obstruct water, change or use material from or deposit debris waste or other material where it could pass into the bed, bank, or channel of a river, stream, or lake.

CARP. The Western Placer County Aquatic Resource Program. A component of the Placer County Conservation Program (PCCP) The CARP provides a structure for protecting aquatic resources in western Placer County while streamlining the environmental permitting process for impacts to aquatic resources.

CARP Application. The application that an Applicant must provide to the Local Jurisdiction to obtain an Aquatic Resource Permit, as explained in the CARP, Chapter 5, Section 5.2..

CARP Authorization. An authorization to impact Aquatic Resources of Placer County issued by the Local Jurisdictions to an Applicant for an HCP/NCCP Covered Activity that will affect aquatic resources, as described in the CARP, Chapter 7. CARP authorization.

CARP Manual. The manual that sets forth the procedures for implementing the CARP. The CARP Manual contains examples of the forms and supporting documents for the CARP.

Construction zone. The limit of project construction plus equipment staging areas and access roads.

Covered Activity. A Covered Activity as described in Chapter 2 of the HCP/NCCP and Section 1.3 of the CARP. Covered activities may be Development Projects, programs or operations and maintenance activities. To be covered under state and federal permits issued for the PCCP, Covered Activities must meet avoidance, minimization, and compensatory mitigation requirements set forth in the HCP/NCCP and CARP for certain species of fish and wildlife and their habitat, including measures to protect Aquatic Resources of Placer County.

Dewater. To remove water temporarily from a work area so that a structure can be built.

Dewatering structures. Pumps, pipes, dams, coffer dams, and other structures designed to remove water from the work area.

Discharge of fill material. The discharge of material to Aquatic Resources of the County that has the effect of eliminating aquatic resources from a project site.

Enhancement. The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area. Community and species-specific enhancement concepts can be found in the HCP/NCCP.

Erodible materials. Material that is easily eroded by hydrologic forces such as soil or small gravels.

Erosion control measures. Methods implemented during and after construction to ensure water quality in the aquatic resources. These are sometimes referred to as Best Management Practices (BMPs).

Exception. An allowance for reductions in mandated setback distances necessary to allow reasonable use and development of a property based on the variety of constraints and factors that may affect the property.

Functions. Functions mean the physical, chemical, and biological processes that occur in ecosystems.

Groundwater. Water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water but does not include water that flows in known and definite channels.

Habitat Conservation Plan (HCP). A habitat conservation plan (HCP) is a document that meets federal ESA requirements and enables local agencies to allow projects and activities to occur in endangered species' habitats. In exchange, those projects and activities must incorporate HCP-prescribed measures to avoid, minimize, or compensate for adverse effects on natural communities and endangered species.

Intermittent stream. Intermittent streams have bed-and-bank morphology but are distinct from perennial streams in that they are seasonal and cease to flow for some portion of the year. They have a broad range of flow duration: some cease flowing shortly after the end of the rainy season, whereas others flow until fall but cease flowing briefly before the onset of the next rainy season. Groundwater is a significant source of water for intermittent streams, and intermittent streams may also be influenced by leaky canals, irrigation, and urban runoff. Intermittent streams may support a Riparian Zone similar to that found in association with perennial streams. Riparian vegetation can be patchy or continuous.

Land Conversion Authorization. Means any permit or approval that authorizes a ground disturbing activity, including, but not limited to, specific plan, tentative map, parcel map, conditional use permit, minor use permit, administrative review permit, design/site agreement, variance, grading permit, grading plan, improvement plan, and building permit. Also includes approvals for County-sponsored capital improvement projects and operations and maintenance activities.

Lake. Natural water bodies and reservoirs. Western Placer County does not have natural lakes. Large ponds with more than 20 percent open water that are not periodically dredged are treated as lakes.

Local Jurisdictions. The Permittees that are also local governments with land use authority. There are two Local Jurisdictions described in the PCCP, the City of Lincoln (City), and the County of Placer (County). The Local Jurisdictions are the only Permittees with the authority to grant Land Conversion Authorizations on Development Projects that are considered Covered Activities under the HCP/NCCP and CARP.

Low flow channel. The narrowest channel within a broader stream channel that carries water during periods of low flow, particularly in intermittent and perennial streams during the summer months.

Natural Community Conservation Plan (NCCP). A natural community conservation plan (NCCP) is the State of California counterpart to the federal HCP. It provides a means of complying with California's Natural Community Conservation Planning Act (NCCP Act) and securing take authorization at the State level. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land uses.

Ordinary High Water Mark (OHWM). The ordinary high-water mark generally corresponds to the upper limit on the streambank of a two-year storm event for riverine systems and corresponds to the spillway elevation of lacustrine features. The ordinary high-water mark in a riverine or lacustrine system is the limit of Aquatic Resources of Placer County in those systems.

Other waters. A term used by the U.S. Army Corps of Engineers (USACE) to designate waters of the United States that are not wetlands or special aquatic sites as defined by USACE and USEPA regulations. Rivers, streams, lakes, and large ponds are not wetlands and are generally called other waters on aquatic resource delineation maps.

Palustrine system. Palustrine systems are non-tidal wetlands characterized by the presence of hydrophytic trees, shrubs, and emergent vegetation (vegetation that is rooted below water but grows above the surface). Palustrine wetlands range from permanently saturated (e.g., perennial marsh) to land that is wet only seasonally (e.g., seasonal wetlands and vernal pools).

Permit conditions. Permit conditions are appended to an Aquatic Resource Permit at the time the Permit is issued. Permittees must comply with all permit conditions. Section 7.5 of the CARP Manual provides a set of standard conditions that are applied to all permits. In some circumstances, the Local Agencies may impose additional conditions.

Permittee. An Applicant who has received a CARP Authorization from the County or the City. PCWA acts as both applicant and permittee for its own activities.

Placer Conservation Authority (PCA). Means the joint exercise of powers agency formed by and among the County and the City of Lincoln pursuant to the Joint Powers Act, Gov. Code § 6500 et seq.. Oversees implementation of PCCP on behalf of the Local Jurisdictions.

Placer County Conservation Program (PCCP). The Placer County Conservation Program (PCCP) applies to western Placer County and specific areas where conservation activities will take place in neighboring Sutter County. The goal of the PCCP is to provide an effective framework to protect, enhance, and restore the natural resources in specific areas of western Placer County while streamlining environmental permitting for Covered Activities. Within this framework, the PCCP will achieve conservation goals, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of infrastructure needed to serve the county's population. The PCCP includes three separate, but complementary, components that support two sets of state and federal permits:

1. Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan
2. Western Placer County Aquatic Resources Program
3. Western Placer County In-Lieu Fee Program.

Project. For the purposes of the CARP, a project is a specific activity or activities that are to be covered by permits for impacts to Aquatic Resources of Placer County. Project also refers to the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

Project area. The area in which the proposed project would occur. Usually corresponds with parcel boundary lines.

Project footprint. The area that would be directly impacted or affected by the proposed project. Usually corresponds to the limits of the construction in the plans and specifications for the project.

Qualified Biologist. A qualified biologist must have obtained a B.S. or B.A. or equivalent degree in biology, environmental studies, fisheries, geomorphology, or related field, and have at least two years of related work experience.

Resource Agencies. The U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (USFS), the National Marine Fisheries Service (NMFS), the State Historic Preservation Officer (SHPO), the California Department of Fish and Wildlife (CDFW), and, in Placer County, the Central Valley Regional Water Quality Control Board (CVRWQCB).

Rehabilitation. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: reestablishment and rehabilitation. Species specific restoration concepts can be found in the HCP/NCCP.

Riparian Zone. The constituent habitat comprising the band of hydrophytic trees and shrubs that are adjacent to perennial and intermittent streams. Riparian habitat relies on streams with sufficient flow duration or near surface groundwater to support woody hydrophytes. In western Placer County, valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), and white alder (*Alnus rhombifolia*), and are typical riparian tree species. Willows (*Salix* spp.) and buttonbush (*Cephalanthus occidentalis*) are typical shrub species. The Riparian Zone is measured from the outermost canopy edge of the riparian species or from the top-of-bank, whichever is greater. Riparian habitat within the Stream System is considered an Aquatic

Resource of Placer County. Riparian vegetation outside the Stream System is subject to the requirements of the HCP/NCCP but is not considered an Aquatic Resource of Placer County.

Riverine system. Riverine systems are water conveyance systems that include rivers, streams, and their tributaries. These features are linear, non-wetland aquatic resources that carry high velocity flows and have a sparsely vegetated stream bed. High flows create bed-and-bank morphology, and the USACE jurisdictional line is the OHWM. Names used to describe riverine features include, but are not limited to, rivers, streams, creeks, drainages, ditches, and canals, all of which occur in Placer County. These riverine features may be perennial, intermittent, or ephemeral. Riverine systems' bed-and-bank morphology may be limited to narrow scour lines in ephemeral streams. A measurable OHWM distinguishes riverine systems from otherwise similar palustrine systems, such as wetland swales. Riverine systems in western Placer County often have a palustrine fringe component (wetlands along the banks) and may support woody riparian vegetation. Like lacustrine systems, riverine systems are considered "other waters".

Seep/Spring. Seeps and springs are points of groundwater discharge that usually occur on slopes. Seeps generally lack the flowing water of springs. Nearly all the groundwater discharge areas in Western Placer County are low-volume and considered seeps. Seeps and springs typically support herbaceous hydrophytic vegetation including black sand spikerush (*Eleocharis pachycarpa*), pennyroyal (*Mentha pulegium*), and dense-flowered spike primrose (*Epilobium densiflorum*).

Sensitive landcover types. Fragile habitats or ecosystems that are susceptible to impacts from encroachment.

Special aquatic sites. Special aquatic sites are defined by the U.S. Environmental Protection Agency at 40 CFR Part 230 Subpart E. These include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes. Only wetlands and riffle and pool complexes occur in western Placer County.

Spring. Similar to seeps, except usually exhibiting flowing water for part of the year.

Stream channel. The area of a stream where normal to high flows occur. It is usually marked by bed-and-bank morphology.

Stream System. The stream channel (wet or dry) and the surrounding area including any area subject to flooding in a 100-year event as determined by the FEMA or project specific information; whichever is more accurate or the outermost limit of a variable-width boundary measured outward from the edge of the Ordinary High Water Mark (OHWM). Further details are provided in CARP Section 3.6, and Stream System boundaries are schematically illustrated in Figure 3-2. The Stream System boundary is truncated at the point where the watershed falls below 40 acres in extent..

Stream Zone. Defined by the Department of Fish and Wildlife as the stream channel through which water and sediment flow, have flowed, or are capable of flowing. It is delineated by the top of the bank or the outer edge of the riparian canopy, whichever is more landward. Where

riparian habitat is lacking, the Stream Zone is the top of the bank. The Stream Zone is embedded within the Stream System.

Storm Water Pollution Prevention Plan (SWPPP). A plan that describes the Best Management Practices (BMPs) that will be used to comply with Section 402 of the federal Clean Water Act. It applies primarily to construction activities.

U.S. Army Corps of Engineers (USACE). The USACE regulates the discharge of dredged and/or fill material into waters of the United States, including wetlands, pursuant to Section 404 of the federal CWA.

Value. The value to society that accrues from the function of wetlands and other aquatic resources. For example, wetlands that store water during storm events have value in flood control.

Vernal pool. Vernal pools are seasonally inundated wetlands that form in relatively shallow soil depressions underlain by a water-restricting layer such as clay, cemented alluvium, or volcanic basalt at or near the surface. These depressions fill with rainwater, near surface groundwater and/or runoff from adjacent areas during the winter and may remain inundated until spring or early summer, sometimes filling and emptying multiple times during the wet season. Vernal pools are typically characterized by endemic plants species.

In Placer County, vernal pools are typically between 3-16 inches in depth measured vertically from the lowest point in the pool to the spillway. Vernal pools are differentiated from other seasonal wetlands by the distinct flora that are present. Examples of vernal pool flora include *Plagiobothrys stipitatus*, *Lasthenia fremontii*, *Eryngium vaseyi*, *Navarretia leucocephala*, and *Psilocarphus brevissimus*.

Waters of the State (WOS). Waters of the state include “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code section 13050(e)). In Placer County, examples include, but are not limited to, rivers, streams, lakes, marshes, mudflats, unvegetated seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, seasonal wetlands, and riparian woodlands. Waters of the State also include isolated features that are not regulated by the USACE. Examples of isolated waters include man-made, off-stream ponds. WOS are included in Aquatic Resources of Placer County.

Waters of the United States (WOUS). Waters of the United States means all waters and wetlands over which the USACE and the USEPA are granted jurisdiction in the Clean Water Act, 33 U.S.C. Section§ 1251, et seq. as defined in 33 CFR Part 328.

Watershed. A land area that drains to a common waterway, such as a stream, river, lake, estuary, wetland, or ultimately the ocean.

Wetland delineation. A map of a property showing the location and extent of ponds, lakes, rivers, creeks, streams, marshes, seeps, springs, vernal pools, or other wetlands that occur there. Wetland delineations must be conducted according to certain standards established by the Corps and must be reviewed by the Local Jurisdiction for completeness.

Wetlands. Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Most wetlands are considered waters of the United States, but isolated wetlands are not regulated by the USACE. The County and City regulate wetlands and isolated waters when a Development Project is a Covered Activity. Wetlands in western Placer County include seasonal wetlands, vernal pools, seeps and springs, marshes, fringe wetlands, and wetland swales.

III. General Measures (good housekeeping practices)

A. Scheduling

All construction within the Stream System, in or near Aquatic Resources of Placer County (within 50 feet) should be scheduled around the weather to better manage erosion and sediment control. The following measures shall be taken to reduce the amount of soil exposed to erosion by weather:

- Land disturbance activities should be avoided or minimized between October 15 and May 1.
- Weather shall be checked prior to the start of work.
- Work in streams containing listed salmonid species shall be limited to the May 15 through October 15 work-window.
- Maintain sufficient erosion and sediment control materials onsite at all times, including during the dry season, to be able to effectively protect the site in advance of any storms.

B. Pre-Project Measures

It is important to clearly define the boundaries of the project with fencing and flagging. Implementation of the following measures will minimize disturbance of sensitive areas and habitats. These measures should be in place prior to the start of ground breaking activities.

- Prior to construction, the project proponent shall be required to prepare an erosion and sediment control plan or Storm Water Pollution Prevention Plan (SWPPP) for projects that disturb one (1) acre or more of soil. New construction within the project footprint can alter watershed hydrology and introduce new pollution sources that may affect water quality in local streams. The erosion and sediment control plan or SWPPP shall describe site design planning approaches that will protect water quality by preventing and reducing the adverse impacts of stormwater pollutants and increases in peak runoff rate and volume. Such approaches include hydrologic source control measures that focus on the protection of natural resources and the reduction of impervious surfaces.
- All areas of vegetation to be preserved shall be clearly marked with flagging or fencing. Sensitive habitats to be avoided such as wetlands, elderberry shrubs, or heritage oak

trees shall be fenced off to prevent construction equipment from damaging those habitats.

- Silt fencing or other sediment trapping methods shall be installed between areas where soil will be exposed and Aquatic Resources of Placer County to minimize the transport of sediment off the site.
- Temporary barriers shall be constructed to keep wildlife out of construction sites.
- All staging areas shall be clearly marked with flagging or fencing and located a minimum of 100 feet away from Aquatic Resources of Placer County when possible.
- During construction, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less.
- The prime contractor shall suspend all grading operations when wind speeds (including instantaneous gusts) are excessive and dust is impacting adjacent properties.
- In order to minimize wind driven dust during construction, the prime contractor shall apply methods such as surface stabilization, establishment of a vegetative cover, paving, (or use another method to control dust as approved by the individual jurisdiction).
- The contractor shall suspend all grading operations when fugitive dust exceeds Placer County Air Pollution Control District (APCD) Rule 228 (Fugitive Dust) limitations. The prime contractor shall be responsible for having an individual who is California Air Resources Board (CARB)-certified to perform Visible Emissions Evaluations (VEE). This individual shall evaluate compliance with Rule 228 on a weekly basis. It is to be noted that fugitive dust is not to exceed 40% opacity and not go beyond the property boundary at any time. Lime or other drying agents utilized to dry out wet grading areas shall not exceed Placer County APCD Rule 228 Fugitive Dust limitations. Operators of vehicles and equipment found to exceed opacity limits will be notified by APCD and the equipment must be repaired within 72 hours.

C. Project Implementation

Once a project is underway, it is important to maintain the following conditions.

- All sites are required to utilize a combination of Best Management Practices (BMPs) such as fiber rolls, straw waddles, mulch, tarps, sand bags, etc. that effectively protect the site and prevent anything but clean rainwater from running off site.
- Equipment storage, fueling, and staging areas shall be sited on previously disturbed areas or on non-sensitive non-native grassland land cover types, when these sites are available, to minimize risk of direct discharge into riparian areas or other sensitive land cover types. When such sites are not available, staging shall occur on the road used to access the site. Standard BMPs, such as those developed in the West Placer Storm Water Quality Design Manual pertaining to staging must be utilized.

- As required for all projects, all species survey protocols shall be followed within the construction zone. The survey area shall be expanded beyond the project footprint whenever possible to help identify covered species and their habitats so that impacts on covered species that occur adjacent to the construction zone can be minimized.
- No erodible materials such as loose soil shall be deposited into watercourses. Brush, loose soils, or other debris material shall not be stockpiled within stream channels or within 100 feet of stream banks or any Aquatic Resources of Placer County that is being avoided.
- All sediment trapping methods, such as silt fence or straw wattles, shall be inspected and maintained on a daily basis.
- On-site monitoring shall be conducted by a qualified biologist throughout the construction period to ensure that disturbance limits, BMPs, and Plan restrictions are being implemented properly.
- Prior to approval of Grading or Improvement Plans, on project sites greater than one acre, the applicant shall submit a Construction Emission / Dust Control Plan to the Placer County APCD.
- Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.
- All exposed soil shall be covered with bio degradable erosion control measures such as straw wattles and erosion control blankets. Such measures must be installed if rain is forecasted.
- Portions of the project that occur in streams (e.g., bridge or culvert construction) shall comply with the BMPs listed under the In-Stream Projects section below.

D. Post-project Practices

Following completion of project construction:

- All construction material, trash, and debris including fencing and flagging shall be removed from the project site and properly disposed of off-site.
- The applicant shall revegetate all disturbed areas.
- All temporarily disturbed areas, such as staging areas, shall be returned to pre-project conditions or improved with native plants within two years of project completion.
- Geotextiles, blankets, and mats shall be installed on any exposed slopes of 3:1 or greater as these slopes are highly susceptible to erosion. These slopes shall also be hydroseeded with a native seed mix to minimize soil erosion.

- Cut and fill slopes shall be revegetated with native plants if possible, or with non-invasive plants suitable for the altered soil conditions.
- Invasive plants within the project area and any construction staging areas shall be removed to prevent the spread of these species into nearby or adjacent reserves.
- Vegetation and debris shall be managed in and near culverts and under and near bridges to ensure that entryways remain open and visible to wildlife and that the passage through the culvert or under the bridge remains clear.
- All structures constructed for wildlife movement (tunnels, culverts, underpasses, fences) shall be monitored by the PCA, and repairs made promptly to ensure that the structure is in proper condition. For facilities owned by entities not participating in the PCCP, the PCA will coordinate with these entities to ensure regular monitoring through access and data collection agreements reached with these entities.

IV. In-Stream Projects

In-stream projects—such as flood protection projects, construction of new bridges, repair or rehabilitation of existing bridges, water supply capital projects, and other development may affect wildlife, aquatic species, and habitats by discharging sediment, disturbing earth and riparian vegetation, and altering hydrologic and hydraulic characteristics of water bodies.

Impacts to streams should be avoided wherever possible. See section 4.7.1 of the CARP for Stream System Avoidance guidelines. For projects where Stream System impacts are unavoidable, projects must be designed to minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow, and must adhere to the BMPs listed under IV.C. Stream System Impact Minimization.

A. Stream Protection

Projects occurring in the proximity of a flowing body of water such as a stream or creek require additional protection from erosion and sedimentation to protect the water quality of these features. Permits may be required from the Corps, CVRWQCB, California Department of Fish and Wildlife, and the National Marine Fisheries Service depending on the extent of impacts and the resources that are present in and adjacent to the waterway. The CVRWQCB may require water sampling before, during, and after project activities to ensure that the project is not negatively impacting water quality.

Temporary Stream Crossings

Temporary stream crossings such as culverts, fords, and bridges can help prevent and/or reduce stream bed erosion and sediment from entering the waterway. Spanning the waterway is the preferred temporary crossing as this allows construction equipment to cross without coming in contact with the bed or bank of the waterway. Culverts may be used for perennial or intermittent streams if spanning the waterway is cost prohibitive. Fords may be used only on intermittent or ephemeral drainages during the dry season when water has ceased to flow. The following measures must be employed for temporary stream crossings:

- For bridges or culverts, the structure design must be prepared under the direction and approval of a registered civil or structural engineer
- To prevent water backing up or washouts during rain events, any temporary structure shall not constrict the waterway flow.
- Crossings shall be constructed in the dry season (May 1 to October 15) or in the case of salmonid streams, May 15 to October 15.
- Adjacent construction roadways and work areas shall be stabilized.
- Removal of adjacent vegetation shall be minimized to the extent possible.
- Vehicles shall not be operated, stored, fueled or maintained in the wet or dry portions of the waterway without authorization of the County.
- Drip pans must be placed under vehicles/equipment on temporary stream crossing structures that remain idle from more than an hour. Being in such proximity to a water course, this measure and others implemented with it shall be installed correctly and maintained to prevent any polluting discharge.
- Any incident of discharge requires notifying the CVRWQCB of the noncompliance.
- Inspect temporary stream crossings weekly and after significant rain events for water flow blockage, sediment buildup, trapped debris, structural damage, riprap displacement or stream bed erosion. Verify sediment buildup is removed regularly.
- Temporary crossings must be removed once they are no longer needed and the waterway must be restored to its original condition.

Bank Stabilization

It is essential to stabilize the banks of streams and channels when working around these features to minimize turbidity and sediment input into the waterway. The potential for discharging sediment and other pollutants into waterways can be greatly reduced by stabilizing work areas in and around these features. The following measures must be adhered to when implementing bank stabilization projects:

- Existing vegetation shall be left intact to the extent possible. Vegetation helps stabilize banks and prevent erosion.
- If vegetation must be removed, disturbed areas shall be temporarily stabilized with hydraulic mulch, hydroseed, soil binders, straw mulch, or a combination thereof.
- If possible, construct a water diversion away from the work area and implement a barrier around the work area.
- BMP's and equipment shall be inspected daily. Repairs shall be completed in a timely manner. Leaky equipment shall be removed from the stream area immediately until it is repaired.

B. Stormwater Flow Diversion

Covered activities that require work within or adjacent to streams such as bridges, levee maintenance and repair, flood protection projects, stream maintenance, outfalls, flood-protection capital projects, and any emergency actions that occur near streams. Examples include:

- Recreational trails (see Section 6.3.6.1.2 of the HCP/NCCP, New Trail Design and Use Standards for Future Reserves).

- New installation or replacement of utilities that result in no new significant permanent disturbance to the riparian corridor during construction and operation and generate only incidental human activity with temporary loss of habitat.
- Construction and maintenance of access roads providing access to streams or levees for managing facilities and infrastructure.
- Stream crossings essential for access to a parcel or facility (i.e., crossing the stream is the only available means to access the parcel).

C. Stream System Impact Minimization

Where Stream System avoidance is not feasible, all projects that are PCCP/CARP covered activities shall minimize impacts on the Stream System by implementing the following BMPs. All in-stream projects must be designed to minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions.

D. Types of Projects Subject to In-stream BMPs

Covered activities that occur in-stream are subject to design requirements or construction practices guidelines because they are expected to result in impacts on creeks or streams. Examples include:

- Installation or rehabilitation of flood protection projects and levee reconstruction.
- Operations and maintenance of flood protection facilities (e.g., dams, armored creeks, detention ponds, streams). Activities may include construction of new facilities, vegetation management, minor sediment removal, or bank stabilization.
- Non-routine stream maintenance activities including extensive removal of vegetation in flood control channels.
- Bridge construction and replacement including vehicular, train, and pedestrian bridges throughout the PCCP coverage area.
- Development of trails in or through the in-stream area (streambed, banks, and adjacent riparian land-cover).
- Culvert installation or replacement.
- Restoration projects throughout the PCCP coverage area, including removal or modification of fish barriers and creek realignment.
- Facility maintenance such as trail, bridge, road, and culvert repair and/or replacement in in-stream areas (including riparian areas).
- Natural resource protection such as small bank stabilization projects, restoration to reduce erosion, fish passage enhancements, removal of barriers to fish passage, and removal of debris deposited during flooding.
- Operations and maintenance of water supply facilities (e.g., flashboard dams, inflatable dams, stream gages, and diversions).

- Removal of debris blockages except in emergency situations.
- Mitigation and/or monitoring in creeks or adjacent riparian corridors.
- Vegetation management for exotic species removal and native vegetation plantings.

E. Design Requirements

Some impacts on stream and riparian land-cover types are expected under the CARP. All covered activities shall implement the following measures to avoid or minimize impacts of covered activities on streams and valley foothill riparian land-cover.

- Site characteristics shall be evaluated in advance of project design to determine if non-traditional designs, such as bioengineered bank treatments that incorporate live vegetation, can be successfully utilized while meeting the requirements of the project.
- Maintenance of natural stream characteristics, such as riffle-pool sequences, riparian canopy, sinuosity, floodplain connectivity, and a natural channel bed, shall be incorporated into the project design to the extent possible and practicable.
- If a culvert is used, up- and downstream ends of the culvert must be appropriately designed so that the stream cannot flow beneath the culvert or create a plunge pool at the downstream end.
- If structural changes to the channel bed are necessary as part of project design, provisions for fish passage shall be incorporated into the project design.
- All proposed creek crossings must be sited to avoid or minimize riparian removal.
- Trails shall be sited and designed with the smallest footprint necessary to cross through the in-stream area. Trail crossings shall be aligned perpendicular to the channel and be designed to avoid any potential for future erosion. Trails that follow stream courses shall be sited outside the riparian corridor to the maximum extent feasible.
- All projects shall be conducted in conformance with the County drainage policies.
- If the project requires removal of riparian vegetation, the amount of riparian vegetation removed shall be minimized while still meeting the project goals. The amount of riparian vegetation to be removed shall be included in the application package submitted to the County. The County shall determine if the requested riparian vegetation removal is necessary in order to implement the proposed project.
- Riparian restoration to offset project impacts shall be implemented on-site, if possible, to replace the functions of the riparian woodland degraded or lost to the covered activity. Riparian restoration implemented on-site shall be credited to CARP/PCCP mitigation requirements if the restoration helps to meet the biological goals and objectives of the CARP/PCCP.
- Projects that discharge dredged or fill material into waters of the United States must adhere to the requirements of the CARP.

- Projects must adhere to the National Marine Fisheries Service (NMFS) Guidelines for Salmonid Passage at Stream Crossings as described in the following section (National Marine Fisheries Service 2001).
- When implementing levee reconstruction covered activities, no baseline shaded riverine aquatic cover shall be removed if the shaded riverine aquatic cover was developed for or contributes to past mitigation projects or efforts.
- If levee reconstruction requires the removal of vegetation that provides habitat value to the adjacent stream (e.g., shading, bank stabilization, food sources, etc.), then the project shall include replacement of the vegetation/habitat that was removed during reconstruction unless it is determined to be inappropriate to do so by the relevant resource agencies (e.g., USACE, NMFS).
- All trees marked for removal from stream zones (riparian) must be shown on maps included with the application package. Non-riparian native trees greater than five inches in diameter at breast height shall not be removed without the consent of the County.
- Applicants for transportation improvements that include stream crossings must comply with Section V. Design and Construction Requirements for Covered Transportation Projects.

F. Guidelines for Salmonid Passage at Stream Crossings

All covered activities within the Stream System shall adhere to the NMFS Guidelines for Salmonid Passage at Stream Crossings unless otherwise noted. Key guidelines described in Guidelines for Salmonid Passage at Stream Crossings (NMFS 2001) are described below.

- For stream crossings, the following structure types (listed in descending order of preference) shall be considered.
 1. Free-span bridges that fully span the stream and allow for long-term dynamic channel stability.
 2. Streambed simulation approaches including bottomless arch, embedded culvert design, or ford that maintains the natural streambed. The structure should be sufficiently large and embedded deep enough into the channel to allow the natural movement of bedload and formation of a stable bed inside the culvert or structure.
 3. Non-embedded culvert (often referred to as a hydraulic design), for use in low-gradient areas, that allows fish passage.
 4. Baffled culvert (creases in the culvert create a series of short high-velocity runs and low-velocity backwater areas that allow the fish to swim in short bursts and then rest), for use in high-gradient areas, that allows fish passage.
- If the project's site is in an active salmonid spawning area, only free-span bridges or streambed simulations (i.e., culverts with a bed that simulates the natural streambed) are acceptable.
- All stream crossings, regardless of the design (i.e., bridge or culvert) or material used, shall be designed to accommodate the 100-year peak flood flow with appropriate clearance to prevent structural damage to the crossing. In practice, it is preferable that the crossing itself and its structural supports completely span the 100-year floodway. At

a minimum, culverts must accommodate the 100-year flood without causing any adjacent flooding around the crossing that could result in mass erosion of the bank or the structural support of the crossing. This requirement will reduce the risk of channel degradation, stream diversion, and failure that may lead to adverse effects on salmonids over the lifespan of the crossing.

- For in-stream culvert installation or replacement projects that may affect stream hydraulics, the project must be designed so that the elevations of surface waters in the stream-reach exhibit gradual flow transitions, both upstream and downstream. Abrupt changes in water surface and velocities must be avoided, with no hydraulic jumps, turbulence, or drawdown at the entrance. A continuous low-flow channel must be maintained throughout the entire stream reach. Hydraulic controls may be necessary to provide resting pools, concentrate low flows, prevent erosion of stream bed or banks, and allow passage of bedload material.
- If a free-span bridge is not feasible due to engineering or cost constraints, bridge piers and footings shall be designed to have minimum impact on the stream. This applies in all stream zones, not just active salmonid spawning areas. A hydraulic analysis must be prepared that shows piers or footings will not cause significant scour or channel erosion. Whenever possible, the span of bridges shall also allow for upland habitat beneath the bridge to provide undercrossing areas for wildlife species that will not enter the creek. Native plantings, natural debris, or large rocks (not riprap) shall be installed under bridges to provide wildlife cover and encourage the use of crossings.
- All in-stream structures shall be aligned with the stream, with no abrupt changes in flow direction upstream or downstream of the crossing. This requirement can often be accommodated by changes in road alignment or slight elongation of the culvert. Where elongation would be excessive, such a solution must be weighed against a better crossing alignment and/or modified transition sections upstream and downstream of the crossing. Project components that may result in disruption of stream hydraulics and alterations to the natural stream bed shall be anticipated and mitigated in the project design.
- Natural supplemental lighting shall be provided in new and replacement culverts that are more than 150 feet long. Where supplemental lighting is required, the spacing between light sources shall not exceed 75 feet.
- If structural changes to the channel bed are necessary as part of project design, provisions for fish passage shall be incorporated into the project design. If the project proponent has the opportunity to incorporate new fish passage into the project design in an area where fish passage is currently lacking, the project proponent shall work with the PCA to determine if new fish passage would support covered species recovery.

G. Construction BMPs

As described above, all in-stream projects shall adopt specific BMPs to minimize impacts on covered species, natural communities, and wildlife movement, as appropriate.

- All work in the Stream System, including wetlands and streams, shall be done according to the plans and documents included in the CARP application. All changes to those plans shall be reported to the County and the PCA prior to construction. Minor changes

may require an amendment to the CARP-related conditions on the land conversion authorization. Substantial changes may render the land conversion authorization void and the permittee may need to submit a new application.

- All CARP-related land conversion authorization conditions shall be depicted on the construction plans. A copy of the conditions shall be given to individuals responsible for activities on the site. Site supervisors shall be familiar with all conditions and shall have a copy on-site at all times.
- The construction corridor in the Stream System shall be created in a way to avoid and minimize impacts to vegetation outside the corridor. All preserved wetlands, other waters, and stream zones shall be protected with bright construction fencing. Temporary fencing shall be removed upon completion of the project.
- Erosion control measures shall be specified as part of the Environmental Questionnaire/CARP application, and the application is not complete without them. All erosion control specified in the permit application shall be in place and functional 48 hours prior to any rain event. Projects shall maintain sufficient erosion and sediment control materials onsite at all times, including during the dry season, to be able to effectively protect the site in advance of any storms. Erosion control features shall be inspected after each rain event. Site supervisors shall be constantly aware of weather forecasts, even during the summer dry season, and shall be prepared to establish erosion control on short notice for unusual rain events. Maintenance includes, but is not limited to, removal of accumulated silt and the replacement of damaged barriers and other features.
- All work between the top-of-bank or the outer edge of riparian vegetation, whichever is greater for perennial and intermittent streams, shall be restricted to periods of low flow and dry weather between May 1 and October 15 unless otherwise permitted by the Resource Agencies. Work may also be conducted two weeks immediately prior to or after work period defined above depending on current weather patterns and timing of salmonid runs, provided that the project proponent receives written permission from the Resource Agencies.
- All work in ephemeral or short-term intermittent streams that generally do not support fish shall be restricted to periods when the stream is not flowing, or by terms specified in the land conversion authorization, providing that erosion control measures are in place before wet weather. Weather forecasts should be monitored, and erosion control established before all storm events.
- Work between the top-of-bank or the outer edge of riparian vegetation, whichever is greater outside of the specified periods may be permitted under some circumstances. The project proponent must provide the County with the following information: a) the extent of work already completed; b) specific details about the work yet to be completed; and c) an estimate of the time needed to complete the work. The CDFW may be asked to confirm the modified dates.
- Work between the top-of-bank or the outer edge of riparian vegetation, whichever is greater shall not disturb active bird nests until young birds have fledged. To avoid impacts to nesting birds in stream zones, trees and shrubs shall be removed between August 15 and February 15. Tree removal at other times is at the County's discretion

and shall require surveys by a qualified biologist to determine the absence of nesting birds.

- Except for site preparation for the construction of dewatering structures, no excavation is allowed in live streams. Detailed plans for dewatering must be part of the permit application.
- Temporary crossings as described in the land conversion authorization permit shall be installed no earlier than May 1 or May 15 if the stream is a salmonid stream and shall be removed no later than October 15. This work window could be modified at the discretion of the County and the CDFW.
- No vehicles other than necessary earth-moving and construction equipment shall be allowed within the between the top-of-bank or the outer edge of riparian vegetation, whichever is greater. The equipment and vehicles used in this area shall be described in the CARP application.
- Staging areas for equipment, materials, fuels, lubricants, and solvents shall be located outside the stream channel and banks and away from all preserved aquatic resources. All stationary equipment that must be within the area that lies between the top-of-bank or the outer edge of riparian vegetation, whichever is greater, must be positioned over drip-pans. Equipment entering this area must be inspected daily for leaks that could introduce deleterious materials into the stream waters. All discharges, unintentional or otherwise, shall be reported immediately to the County. The County shall review the incident and determine whether the matter warrants notifying the appropriate state and federal agencies.
- Cement, concrete, washings, asphalt, paint, coating materials, oil, other petroleum products, and other materials that could be hazardous to aquatic life shall be prevented from reaching streams, lakes, or other water bodies. These materials shall be placed away from aquatic environments and removed immediately if they are accidentally placed near an aquatic feature. All discharges into waters, unintentional or otherwise, shall be reported immediately to the County. The County, in consultation with the PCA shall then determine if the matter warrants notification of the appropriate state and federal agencies.
- During construction, no litter or construction debris shall be dumped into water bodies or other aquatic resources. Nor shall it be placed in a location where it might be moved by wind or water into aquatic resources. All construction debris shall be removed from the site on a regular basis and upon completion of the project.
- Only herbicides registered with the California Department of Pesticide Regulation shall be used in streams, ponds, and lakes, and shall be applied in accordance with label instructions. A list of all pesticides that may be used in the project area shall be submitted to the County before use.
- The County and PCA shall be notified immediately if threatened or endangered species not expected on the site are discovered during construction activities. If the grading activity is deemed to put at risk the safety of the species, the County shall suspend work and notify USFWS, NMFS and the CDFW for guidance.

- Wildlife entering the construction site shall be allowed to leave the area unharmed, or shall be flushed or herded humanely in a safe direction away from the site.
- All pipe sections shall be capped or inspected for wildlife before being placed in a trench. Pipes within a trench shall be capped at the end of each day to prevent entry by wildlife.
- At the end of each workday all open trenches shall be provided with a ramp of dirt or wood to allow trapped animals to escape.

H. Post-construction In-stream Practices

Following construction, the project area shall be returned to pre-project conditions except in areas where permanent impacts (e.g., installation of a bridge) are part of the project design. Plants in re-vegetated areas shall be successfully established within two years of project completion. The following measures shall be applied to in-stream projects and will decrease the potential for subsequent erosion and/or spread of nonnative species at the project site.

- Following work in a stream channel, the low flow channel shall be returned to its natural state as nearly as possible. The shape and gradient of the streambed shall be as close as possible to the shape and gradient that existed before the work began.
- Any graded slopes or disturbed soils shall be revegetated with plants native to local watersheds.
- Permanent water quality treatment facilities/Best Management Practices (BMPs) shall be designed according to the guidance of the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction, for New Development / Redevelopment, and for Industrial and Commercial (or other similar source as approved by the Engineering and Surveying Division. Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, filters, etc. for entrapment of sediment, debris and oils/greases or other identified pollutants
- If an area with suitable spawning habitat, including spawning gravels, is disturbed during project construction, habitat shall be restored to pre-project conditions to the extent possible given any changes to the stream bed that result from project implementation.
- All temporarily disturbed areas, such as staging areas, shall be returned to pre-project conditions. Plants in re-vegetated areas shall be successfully established within two years of project completion.
- Vegetation and debris must be managed in and near culverts and under and near bridges to ensure that entryways remain open and visible to wildlife and that passage through the culvert or bridge remains clear.

I. In-stream Operation and Maintenance Activities

Placer County Flood Control and Water Conservation District is responsible for in-stream operations and maintenance of flood control facilities in the PCCP coverage area. Private property owners may also conduct stream operation and maintenance activities for specific purposes related to flood control and stormwater facilities.

The BMPs identified below are required for in-stream operations and maintenance activities. These BMPs are designed to minimize impacts to riparian and riverine land-cover and covered species during implementation of covered stream operations and maintenance activities.

- Operations and maintenance activities shall comply with HCP/NCCP preconstruction survey requirements.
- Prior to undertaking stream maintenance activities, conditions shall be assessed to identify tasks that are necessary to maintain the channel for the purpose for which it was designed and/or intended (e.g., flood control, groundwater recharge). Only in-stream work that is necessary to maintain the channel shall be conducted.
- When stream reaches require extensive vegetation thinning or removal (e.g., when the channel has been fully blocked by willows or other vegetation), removal shall be phased to the extent possible so that a portion of the riparian land-cover remains. In addition, vegetation removal shall be targeted and focused on removing the least amount of riparian vegetation as possible while still meeting the desired flood control needs. For example, vegetation removal shall be focused on shrubby undergrowth at the toe-of-slope that is most likely to increase roughness and create a flooding hazard. Vegetation on the upper banks, particularly mature tree canopy, should be maintained to the extent possible to provide habitat for birds and small mammals and shading for the active channel.
- When reaches require sediment removal, approaches shall be considered that may reduce the impacts of the activity.
- In natural streams not managed for flood control purposes, woody material (including live leaning trees, dead trees, tree trunks, large limbs, and stumps) shall be retained unless it is a safety issue, or threatening a structure, impedes reasonable access, or is causing bank failure and sediment loading to the stream.
- If debris blockages threaten bank stability and/or may increase downstream sedimentation, debris shall be removed. When clearing natural debris blockages (e.g., branches, fallen trees, soil from landslides) from the channel, removal shall concentrate on the minimum amount of debris removal necessary to maintain flow conveyance (i.e., prevent significant backwatering or pooling). Non-natural debris (e.g., trash, shopping carts, etc.) shall be fully removed from the channel.
- If bank failure occurs due to debris blockages, bank repairs shall only use compacted soil, and shall be re-seeded with native grasses and stabilized with natural erosion control fabric. If compacted soil is not sufficient to stabilize the slope, bioengineering techniques must be used. No hardscape (e.g., concrete or any sort of bare riprap) or rock gabions may be utilized in natural streams. Rock riprap may only be used to stabilize channels experiencing extreme erosion, and boulders must be backfilled with soil and planted with willows or other native riparian species suitable for the project site. If available, local native species shall be utilized as appropriate.
- Invasive plant species removed during maintenance activities shall be handled and disposed of in such a manner as to prevent further spread of the invasive species. Equipment used in construction should be cleaned to remove invasive species' propagules prior to use.

- Any disturbed soils shall be re-vegetated with native plants; non-native, non-invasive species; or non-reproductive (i.e., sterile hybrids) plants suitable for the altered soil conditions.
- When possible, activities in the active channel shall be avoided.

V. Design and Construction Requirements for Covered Transportation Projects

This condition identifies design and construction requirements to minimize the impacts of public transportation projects on wildlife movement, covered species, and their habitat. This condition applies to all covered transportation projects within the PCCP coverage area. All covered transportation projects that affect the Stream System (i.e. cross streams or creeks, including bridges) are subject to the BMPs listed in Section IV above.

A. Exempt Transportation Projects

The following projects are not subject to the design requirements or construction practices specified in this condition because they are not expected to result in new ground disturbance and are not expected to create new barriers to wildlife movement or augment existing barriers. Although they are not required to implement this condition, they shall still be subject to measures that are identified in the environmental impact analysis process.

- Installing traffic signals, signs, pavement markings, flashing beacons, or other safety warnings.
- Painting new lane striping.
- Installing “rumble” strips, channelizers, or other safety markers.
- Installing guardrails or similar structures that are permeable to wildlife.
- Installing ramp metering.
- Regrading existing shoulders (refer to Operations and Maintenance Activities Section below).
- Implementing other road safety improvements on less than 1,000 feet of roadway. Note that road safety improvements that cross creeks are subject to the BMPs in the In-stream Projects section above.

B. Types of Projects Subject to Condition

The following projects are subject to the design requirements or construction practices because they are expected to result in new ground disturbance, or they may create new barriers to wildlife movement, or augment existing barriers. Each project category is subject to a specific combination of requirements listed in Table C-1. The requirements are described below.

Appendix C

Cultural Resources Study

The Cultural Resources Study contains confidential information not for public distribution. This report has been transmitted to the City under separate cover.

Appendix D
Energy Data

Construction Fuel Consumption

On-Site Diesel ¹	MTCO ₂ e	Gallons of Fuel ⁴	Construction Year 2026 County Fuel	Percent
Site Preparation	45	4,406		
Grading	29	2,878		
Paving	29	2,885		
Infrastructure Improvement	321	31,468		
Total	425	41,637	38,110,840	0.1093%

Off-Site Diesel ¹				
Site Preparation	0	0		
Grading	56	5,498		
Paving	0	0		
Infrastructure Improvement	6	572		
Total	62	6,070	38,110,840	0.0159%

Off-Site Gasoline ²				
Site Preparation	3	343		
Grading	3	343		
Paving	6	674		
Infrastructure Improvement	4	457		
Total	16	1,817	130,622,623	0.0014%

Total Diesel Fuel		47,707	38,110,840	0.1252%
Total Gasoline Fuel		1,817	130,622,623	0.0014%
Total Construction Fuel	503	49,523		

Construction Phase ³	Demolition			Site Preparation			Grading		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)
2026				45	-	3	29	56	3
Total	-	-	-	44.98	-	3.01	29.38	56.14	3.01

Construction Phase ³	Paving			Infrastructure Improvement			Architectural Coating		
	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)	On-Site Diesel (Off-Road)	Off-Site Diesel (Hauling/Vendor)	Off-Site Gas (Worker)
2026	29	-	6	321	5.84	4			
Total	29	0	6	321	6	4	0	0	0

Notes:

¹ Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

² Fuel used for worker trips assumed to be gasoline.

³ MTCO₂e rates from CalEEMod (3. Construction Details).

⁴ For CO2e emissions, The Climate Registry, June 2023 Default Emission Factors, see Table 1.1 (U.S. Default Factors for Calculating CO2 Emissions from Combustion of Transport Fuels) <https://theclimateregistry.org/wp-content/uploads/2023/06/2023-Default-Emission-Factors-Final-1.pdf>;

Climate Registry Conversion Ratios:

- Gasoline: 8.78 kg CO₂ per gallon / 1,000 kg per metric ton
- Diesel: 10.21 kg CO₂ per gallon / 1,000 kg per metric ton

Construction Water Energy

Daily Soil Disturbance ¹	1.5	acres
Days of Soil Disturbance ²	132	days
Water Concentration ³	3,020	gallons/acre
Water Energy Intensity ⁴	1,612	kWh/MG
Total Construction Water	0.60	million gallons
Construction Water Energy	964	kWh
	0.0010	GWh
Placer County Annual Electricity	3089	GWh
Percent Increase	0.00003%	

Notes:

¹ Total daily acres disturbed from offroad equipment per CalEEMod (3.0 Construction Detail) and maximum SCAQMD LST values for soil-disturbing equipment.

² Number of days of construction (site prep and grading phases) with soil-disturbing equipment per CalEEMod (3.0 Construction Detail).

³ Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual.

⁴ Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

Acreage Estimate

Equipment	Acres/8hr Day	Equipment Modeled	Disturbed Acres
Tractors	0.5	2	1
Dozers	0.5	1	0.5
Total Acres			1.5

Appendix E
Noise Modeling Results

Project: Lincoln Ferrari Ranch Roundabouts
Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Average Distance (feet)	Distance to Property Line (feet)	Shielding	Direction
1	Residential	1	138	5	Ingram Pkwy
2	Residential	2	127	5	Sun City Blvd

Construction Noise Levels by Phase (Leq)				
Site Preparation	Grading	Paving	Infrastructure Improvement	
74.9	78.9	79.2	78.9	
75.7	79.7	79.9	79.6	

Construction Phase	Equipment Type	No. of Equip.	Reference Acoustical Usage Factor	Noise Level at 50ft per Unit, Lmax
Site Preparation	Compressor (air)	1	40%	78
	Front End Loader	1	40%	79
	All Other Equipment > 5 HP	1	50%	85
	Jackhammer	2	20%	89
	Paver	1	50%	77
	Pneumatic Tools	1	50%	85
	Dump Truck	2	40%	77
	Combined LEO			
Grading	Skid Steer Loader	1	40%	96
	Concrete Saw	1	20%	90
	Dump Truck	2	40%	77
	Combined LEO			
Paving	Skid Steer Loader	1	40%	96
	Jackhammer	2	20%	89
	Dump Truck	2	40%	77
	Combined LEO			
Infrastructure Improvement	Front End Loader	1	40%	79
	Concrete Mixer Truck	3	40%	79
	Excavator	1	40%	81
	Dump Truck	2	40%	77
	Skid Steer Loader	1	40%	96
	Combined LEO			
Overlapping Phases				
Overlapping Phases				
Overlapping Phases				
Overlapping Phases				
Overlapping Phases				
Maximum Noise Level				

Source for Ref. Noise Levels: RCNM, 2005

RECEPTOR 1			RECEPTOR 2		
Distance (feet)	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Distance (feet)	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq
138	63.9	59.9	127	64.6	60.6
138	65.3	61.3	127	66.0	62.0
138	71.2	68.2	127	71.9	68.9
138	78.1	71.1	127	78.8	71.8
138	63.4	60.4	127	64.1	61.1
138	71.4	68.4	127	72.1	69.1
138	65.7	61.7	127	66.4	62.4
		74.9			75.7
138	82.4	78.4	127	83.1	79.1
138	75.8	68.8	127	76.5	69.5
138	65.7	61.7	127	66.4	62.4
		78.9			79.7
138	82.4	78.4	127	83.1	79.1
138	78.1	71.1	127	78.8	71.8
138	65.7	61.7	127	66.4	62.4
		79.2			79.9
138	65.3	61.3	127	66.0	62.0
138	69.8	65.8	127	70.5	66.5
138	66.9	62.9	127	67.6	63.6
138	65.7	61.7	127	66.4	62.4
138	82.4	78.4	127	83.1	79.1
		78.9			79.6
		82.1			82.8
		78.9			79.6
		78.9			79.6
		78.9			79.6
		82.1			82.8